

Strategic Environmental Assessment for the Cottenham Neighbourhood Plan

Environmental Report to accompany the submission version of the
of the Neighbourhood Plan
October 2018

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Non-Technical Summary

What is Strategic Environmental Assessment?

A strategic environmental assessment (SEA) has been undertaken to inform the Cottenham Neighbourhood Plan. This process is required by the SEA Regulations.

Neighbourhood Plan groups use SEA to assess Neighbourhood Plans against a set of sustainability objectives developed in consultation with interested parties. The purpose of the assessment is to avoid adverse environmental and socio-economic effects through the Neighbourhood Plan, and identify opportunities to improve the environmental quality of the area covered by the Neighbourhood Plan and the quality of life of residents.

What is the Cottenham Neighbourhood Plan?

The Cottenham Neighbourhood Plan is currently being prepared as a Neighbourhood Development Plan under the Localism Act 2011 and the Neighbourhood Planning (General) Regulations 2012. The Neighbourhood Plan is being prepared in the context of the emerging South Cambridgeshire Local Plan which will supersede the South Cambridgeshire Local Development Framework and cover the time period up until the year 2031. The Neighbourhood Plan was submitted to South Cambridgeshire District Council in autumn 2018.

Purpose of this Environmental Report

This Environmental Report, which accompanies the submission version of the Neighbourhood Plan, is the latest document to be produced as part of the SEA process. The first document was the SEA Scoping Report (June 2018), which includes information about the Neighbourhood Plan area's environment and community.

The purpose of this Environmental Report is to:

- Identify, describe and evaluate the likely significant effects of the Cottenham Neighbourhood Plan and alternatives; and
- Provide an opportunity for consultees to offer views on any aspect of the SEA process which has been carried out to date.

The Environmental Report contains:

- An outline of the contents and main objectives of the Cottenham Neighbourhood Plan and its relationship with other relevant policies, plans and programmes;
- Relevant aspects of the current and future state of the environment and key sustainability issues;
- The SEA Framework of objectives against which the Cottenham Neighbourhood Plan has been assessed;
- The appraisal of alternative approaches for the Cottenham Neighbourhood Plan;
- The likely significant environmental effects of the Cottenham Neighbourhood Plan;
- The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects as a result of the Cottenham Neighbourhood Plan; and
- The next steps for the Cottenham Neighbourhood Plan and accompanying SEA process.

Assessment of alternative approaches for the Cottenham Neighbourhood Plan

Housing numbers

The Cottenham Neighbourhood Plan is being prepared in the context of the emerging South Cambridgeshire Local Plan¹, which will supersede the South Cambridgeshire Local Development Framework and cover the time period up until the year 2031. The emerging Local Plan, which has been developed alongside the emerging Cambridge Local Plan, will set out the overarching strategy for the area, setting out where development will take place, what areas should be protected and how the area will change. The Local Plan does not however allocate homes in Cottenham, or provide a specific number of houses to be delivered in the parish through the Neighbourhood Plan.

To gain an indication of housing needs in the parish, a Housing Needs Assessment was undertaken for the Neighbourhood Plan in 2017. This was with a view to informing the number of houses which should be allocated through the Neighbourhood Plan. The outcome of this process was that a figure of 400 homes would be required over the plan period to deliver 'locally assessed objective need'. The Housing Needs Assessment also highlighted that there were at least 91 households which, although not in urgent need and therefore not qualifying for subsidised accommodation, could not afford the current prices of "affordable" homes in the Neighbourhood Plan area.

In 2017 and to date in 2018, in the region of 530 homes have gained planning approval in the parish, on four sites. In addition, recent calculations have suggested that 48 homes will be delivered through windfall sites in the plan period. On this basis, the locally objectively assessed need of 400 homes is likely to be significantly exceeded during the plan period.

Following initial consultation events undertaken for the Neighbourhood Plan, and consideration of the findings of evidence base studies for the Neighbourhood Plan, it was determined that there continued to be a need for up to 1-2 bedroom apartments in the village. This was in addition to affordable housing provision which could be delivered separately through Rural Exception Sites.

In response to this, the Neighbourhood Plan Working Party sought to consider different options for delivering the proposed 1-2 bedroom apartments through exploring the suitability of different locations allocating these homes in the parish.

Assessment of a brownfield vs a greenfield first approach to Neighbourhood Plan allocations

A key element which the Neighbourhood Plan Working Party wished to explore was the extent to which a brownfield-first approach should be taken to allocations in the Neighbourhood Plan. On this basis, and to further support the intention of the Neighbourhood Plan to shape new development within the Neighbourhood Plan area, two potential options were considered, namely whether to 1) focus allocations on existing previously developed 'brownfield' sites in Cottenham or 2) widen the scope of the Neighbourhood Plan to consider allocations on previously undeveloped 'greenfield' sites in the Neighbourhood Plan area.

- Option 1: Facilitate the development of greenfield sites in the Neighbourhood Plan area; and
- Option 2: Focus development on previously developed sites in the Neighbourhood Plan area.

Table 4.1 in this Environmental Report presents the findings of the appraisal of Option 1 and Option 2 outlined above.

Assessment of potential sites for housing allocations

In response to consultation undertaken to date on the Neighbourhood Plan, the Neighbourhood Plan Working Party took the decision to focus the proposed sites for 1-2 bedroom apartments on brownfield sites in Cottenham rather than allocating greenfield sites for this purpose.

This was with the aim of:

¹ South Cambridgeshire Plan (2018) [Online] Available at: <<https://scambs.jdi-consult.net/localplan/>> last accessed [13/06/18]

- Facilitating enhancements to the existing public realm of parts of the village;
- Protecting landscape character in the vicinity of the village; and
- Rejuvenating existing areas of underutilised land in the village.

In light of this decision, and to support the choice of allocations to be taken forward through the Neighbourhood Plan, six brownfield sites were identified by the Neighbourhood Plan Working Party as possible locations for the type of allocation proposed.

The sites were below:

- **Broad Lane Industrial**
- **Co-op**
- **Durman Stearn**
- **Hay Lane**
- **Voland**
- **Watson’s Yard / Fire Station**

These sites were then considered in terms of their suitability for delivering 1-2 bedroom apartments. To inform this process, the SEA process undertook an appraisal of the key environmental constraints present at each of the sites and potential effects that may arise as a result of delivering this type of allocation at these locations. The sites were therefore considered in relation to the SEA Framework of objectives and decision making questions developed during SEA scoping (Chapter 3) and the baseline information.

Tables 4.2 to 4.8 in the main body of the Environmental Report present the findings of the appraisals. A summary of the appraisal findings is presented below:

Table NTS 1: Summary of SEA site appraisal findings

Site	Biodiversity	Climate change	Landscape and Historic Environment	Land, soil and water resources	Population and Community	Transport
Broad Lane Industrial						
Co-op						
Durman Stearn						
Hay Lane						
Voland						
Watson’s Yard						
Key						
Likely adverse effect (without mitigation measures)				Likely positive effect		
Neutral/no effect				Uncertain effects		

Informed by consultation undertaken to date on the Neighbourhood Plan, and consideration of the site assessment and appraisal findings presented above, the Neighbourhood Plan Working Party took the decision to focus the proposed development of 1-2 bedroom apartments on brownfield, mixed use sites located in walking distance to Cottenham village centre. This was to support accessibility to services and facilities and promote the vitality of the village centre.

In light of this choice, the following three sites have been allocated in the Neighbourhood Plan for these purposes:

- Durman Stearn
- Watson's Yard / Fire Station
- Co-op

Whilst the three sites will enable the delivery of housing units which will help deliver local housing needs, the Neighbourhood Working Party acknowledged that there may need to be an additional element of housing delivery over the plan period to meet affordable needs in the village. As such, the submission version of the Neighbourhood Plan enables the delivery of predominantly locally affordable homes on greenfield Rural Exception Sites near the village centre over the 15-year plan period, if a range of criteria are met. These criteria include with regard to accessibility to the village centre and local bus routes; a stipulation that homes should be offered to those with a local connection; new walking and cycling provision is incorporated within new development; and appropriate design and layout is incorporated within new design.

This additional affordable housing provision has not been taken forward as site allocations in the Neighbourhood Plan; instead the Neighbourhood Plan supports the principle of such development if the conditions set out in the Neighbourhood Plan policies are met.

Assessment of the current version of the Cottenham Neighbourhood Plan

The submission version of the Cottenham Neighbourhood Plan presents 26 planning policies for guiding development in the Neighbourhood Plan area.

Utilising the SEA Framework of objectives and assessment questions developed during the earlier scoping stage of the SEA, the SEA process has assessed the policies put forward through the current version of the Cottenham Neighbourhood Plan. The Environmental Report has presented the findings of the assessment under the following SEA Themes:

- Biodiversity;
- Climate Change;
- Landscape and Historic Environment;
- Land, Soil and Water Resources;
- Population and Community; and
- Transportation.

The assessment has concluded that the current version of the Cottenham Neighbourhood Plan is likely to lead to significant long term positive effects in relation to the 'Population and Community' and 'Transportation' SEA themes. These benefits largely relate to the Neighbourhood Plan's focus on providing new housing, employment and retail development to meet local needs in accessible locations, the provision of new community infrastructure in Cottenham, the protection and enhancement of green infrastructure networks in the area, an expansion of local pedestrian/cycle networks, and the protection and enhancement of the quality of the public realm and neighbourhood distinctiveness.

The allocations proposed through the Neighbourhood Plan will potentially enable enhancements to be made to the quality and vitality of the villagescape and the setting of the historic environment at locations of relatively poor public realm in Cottenham. Supporting this further, the Neighbourhood Plan has a close focus on conserving and enhancing landscape and villagescape character in the parish, and on protecting and enhance the setting and fabric of the historic environment. Taken together, these will have the potential to lead to long term positive effects in relation to the 'Landscape and Historic Environment' themes. Longer term, this includes through limiting negative effects from potential new development areas in the parish, and securing enhancements to local distinctiveness.

Whilst the Neighbourhood Plan seeks to take a 'brownfield first' approach, the Neighbourhood Plan facilitates the delivery of up to 90 predominantly locally affordable homes on greenfield Rural Exception Sites, if a set of criteria are met. Whilst the approach does not include allocations, this has the potential to lead to the loss of productive agricultural land in the Neighbourhood Plan area. However, given the detailed location of such development has not been established, it is unclear whether this will lead to the loss of areas of the Best and Most Versatile Agricultural Land. As such, impacts in relation to the 'Land, Soil and Water Resources' SEA theme are uncertain.

The Cottenham Neighbourhood Plan will initiate a number of beneficial approaches regarding the 'Biodiversity' and 'Climate Change' SEA themes. These are not though considered to be significant in the context of the SEA process given the scope of the Neighbourhood Plan and the scale of proposals.

Next Steps

This Environmental Report accompanies the Cottenham Neighbourhood Plan for submission to the Local Planning Authority, South Cambridgeshire District Council, for subsequent Independent Examination.

At Independent Examination, the Neighbourhood Plan will be considered in terms of whether it meets the Basic Conditions for Neighbourhood Plans and is in general conformity with the South Cambridgeshire Local Plan.

If Independent Examination is favourable, the Neighbourhood Plan will be subject to a referendum, organised by South Cambridgeshire District Council. If more than 50% of those who vote agree with the Neighbourhood Plan, then it will be 'made'. Once made, the Cottenham Neighbourhood Plan will become part of the Development Plan for Cottenham Parish.

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1. Introduction

Background

- 1.1 AECOM has been commissioned to undertake an independent Strategic Environmental Assessment (SEA) in support of Cottenham's emerging Neighbourhood Plan.
- 1.2 The Neighbourhood Plan for Cottenham is currently being prepared as a Neighbourhood Development Plan under the Localism Act 2011 and the Neighbourhood Planning (General) Regulations 2012. The Neighbourhood Plan is being prepared in the context of the emerging South Cambridgeshire Local Plan.
- 1.3 The Cottenham Neighbourhood Plan was submitted to South Cambridgeshire District Council in autumn 2018.
- 1.4 Key information relating to the Cottenham Neighbourhood Plan is presented in **Table 1.1**.

Table 1.1: Key facts relating to the Cottenham Neighbourhood Plan

Name of Responsible Authority	Cottenham Parish Council
Title of Plan	Cottenham Neighbourhood Development Plan
Subject	Neighbourhood planning
Purpose	<p>The Cottenham Neighbourhood Plan is being prepared as a Neighbourhood Development Plan under the Localism Act 2011 and Neighbourhood Planning (General) Regulations 2012. The plan will be in general conformity with the South Cambridgeshire Local Plan.</p> <p>The Cottenham Neighbourhood Plan will be used to guide and shape development within the Cottenham Neighbourhood Plan area.</p>
Timescale	To 2031
Area covered by the plan	The Neighbourhood Plan area covers the parish of Cottenham in South Cambridgeshire (Figure 1.1)
Summary of content	The Cottenham Neighbourhood Plan will set out a vision, strategy and range of policies for the Neighbourhood Plan area.
Plan contact point	<p>Cottenham Neighbourhood Plan Working Party</p> <p>Email address: clerk@cottenhampc.org.uk</p>

SEA explained

- 1.5 The Cottenham Neighbourhood Plan has been screened in by East Cambridgeshire District Council as requiring a Strategic Environmental Assessment
- 1.6 SEA is a mechanism for considering and communicating the likely significant effects of an emerging plan, and reasonable alternatives in terms of key environmental issues. The aim of the SEA is to inform and influence the plan-making process with a view to avoiding or mitigating negative environmental effects and maximising positive effects. Through this approach, the SEA for the Neighbourhood Plan seeks to maximise the emerging Neighbourhood Plan's contribution to sustainable development.
- 1.7 The SEA has been prepared in line with the procedures prescribed by the Environmental Assessment of Plans and Programmes Regulations 2004 (the SEA Regulations) which transpose into national law the EU Strategic Environmental Assessment (SEA) Directive².
- 1.8 The SEA Regulations require that a report is published for consultation alongside the draft plan which 'identifies, describes and evaluates' the likely significant effects of implementing 'the plan, and reasonable alternatives'. The report must then be taken into account, alongside consultation responses, when finalising the plan.
- 1.9 In line with the SEA Regulations this Environmental Report must essentially answer four questions:
 - What is the scope of the SEA?
 - What has plan-making/SEA involved to up to this point?
 - 'Reasonable alternatives' must have been appraised for the plan.
 - What are the appraisal findings at this stage?
 - i.e. in relation to the draft plan
 - What happens next?
- 1.10 These questions are derived from Schedule 2 of the SEA Regulations, which present 'the information to be provided in the report'. Table 1.2 presents the linkages between the regulatory requirements and the four SEA questions.

Structure of this Environmental Report

- 1.11 This document is the Environmental Report for the Cottenham Neighbourhood Plan and hence needs to answer all four of the questions listed above with a view to providing the information required by the SEA Regulations.
- 1.12 Each of the four questions is answered in turn within this report, as follows:

² Directive 2001/42/EC

Table 1.2: Questions that must be answered by the Environmental Report in order to meet regulatory³ requirements

Environmental Report question	In line with the SEA Regulations, the report must include... ⁴
<p>What is the plan seeking to achieve?</p>	<ul style="list-style-type: none"> • An outline of the contents, main objectives of the plan and relationship with other relevant plans and programmes
<p>What is the sustainability 'context'?</p>	<ul style="list-style-type: none"> • The relevant environmental protection objectives, established at international or national level • Any existing environmental problems which are relevant to the plan including those relating to any areas of a particular environmental importance
<p>What's the scope of the SEA?</p> <p>What is the sustainability 'baseline'?</p>	<ul style="list-style-type: none"> • The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan • The environmental characteristics of areas likely to be significantly affected • Any existing environmental problems which are relevant to the plan including those relating to any areas of a particular environmental importance
<p>What are the key issues & objectives?</p>	<ul style="list-style-type: none"> • Key problems/issues and objectives that should be a focus of (i.e. provide a 'framework' for) assessment
<p>What has plan-making/SEA involved up to this point?</p>	<ul style="list-style-type: none"> • Outline reasons for selecting the alternatives dealt with (and thus an explanation of the 'reasonableness' of the approach) • The likely significant effects associated with alternatives • Outline reasons for selecting the preferred approach in light of alternatives appraisal/a description of how environmental objectives and considerations are reflected in the draft plan.
<p>What are the assessment findings at this stage?</p>	<ul style="list-style-type: none"> • The likely significant effects associated with the submission version of the plan • The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects of implementing the submission version of the plan
<p>What happens next?</p>	<ul style="list-style-type: none"> • The next steps for plan making/SEA process.

³ Environmental Assessment of Plans and Programmes Regulations 2004

⁴ NB this column does not quote directly from Schedule II of the Regulations. Rather, it reflects a degree of interpretation.

2. Local Plan context and vision for the Cottenham Neighbourhood Plan

Local Plan context for the Cottenham Neighbourhood Plan

- 2.1 The Cottenham Neighbourhood Plan is being prepared in the context of the emerging South Cambridgeshire Local Plan⁵, which will supersede the South Cambridgeshire Local Development Framework and cover the time period up until the year 2031. The emerging Local Plan, which has been developed alongside the emerging Cambridge Local Plan, will set out the overarching strategy for the area, setting out where development will take place, what areas should be protected and how the area will change.
- 2.2 The Local Plan outlines a spatial strategy for South Cambridgeshire through setting out provisions for the South Cambridgeshire Policy Area and the Joint Spatial Approach. The Local Plan was submitted for to the Secretary of State in March 2014 for review at Examination.
- 2.3 Following consideration of the issues raised by the Planning Inspectors at Examination, Proposed Modifications were undertaken to the Local Plan in December 2015, with further Main Modifications undertaken in January 2018.
- 2.4 Under Policy S/8 of the Local Plan, Cottenham is defined as a 'Rural Centre', and described as "*a vibrant village with the capacity for further expansion*"; the policy states that "*Development and redevelopment without any limit on individual scheme size will be permitted within the development frameworks of Rural Centres, as defined on the Policies Map, provided that adequate services, facilities and infrastructure are available or can be made available as a result of the development*".
- 2.5 Strategic Objective S/2(c) within the Local Plan aims to promote the provision of sufficient homes, jobs, services and community infrastructure to enable the smaller towns and key villages to continue to play their role as local service centres for the surrounding areas. The Local Plan identifies a number of sites to bring forward a supply of new homes and jobs within the smaller towns and key villages; however none of these are in Cottenham. As stated in Policy S/5, 19,500 new homes, including affordable housing are proposed within the district in order to achieve an appropriate scale of growth which respects its regions growth and supports the future sustainability of the settlement.
- 2.6 Similar to Policy S/5, Policy S/6 within the Local Plan aims to enable the development of new homes, jobs and community infrastructure sufficient to meet the local needs of the Rural Centres identified within the areas covered in the Local Plan, including Cottenham. Policy S/6 (2-4) aims to empower local residents to create strong and sustainable communities, with the preparation of Neighbourhood Plans as a means of identifying local development needs within the Rural Centres; and developing major site allocations for housing led development, with the associated employment and supporting services. The Local Plan limits development in rural areas and focusses job and housing allocations on Rural Centres such as Cottenham. Through this approach, it seeks to achieve a balance so that development maintains and improves the viability of the villages whilst also being of an appropriate scale – respecting their character and in particular, any landscape designations.
- 2.7 Whilst no allocations are included in Cottenham through the Local Plan, planning applications were approved in 2017 and 2018 for some 530 homes to be built in Cottenham on four sites.
- 2.8 Neighbourhood plans will form part of the development plan for the district alongside, but not as a replacement for the Local Plan. The Local Plan seeks to give communities a solid framework within which appropriate community-led planning policy documents, including neighbourhood plans, can be brought forward. Neighbourhood plans are required to be in general conformity with the strategic policies of the Local Plan and can develop policies and proposals to address local place-based issues. In this way it is intended for the Local Plan to provide a clear overall

⁵ South Cambridgeshire Plan (2018) [Online] Available at: <<https://scambs.jdi-consult.net/localplan/>> last accessed [13/06/18]

strategic direction for development in South Cambridgeshire, whilst enabling finer detail to be determined through the neighbourhood planning process where appropriate.

Vision for the Cottenham Neighbourhood Plan

2.9 The vision for the Cottenham Neighbourhood Plan, which was developed during earlier stages of plan making is as follows:

- *“In 2031 Cottenham will still be an attractive safe rural village, proud of its character and retaining its sense of community with improved amenities and facilities, reduced impact of traffic, especially in the centre of the village, and having more affordable housing for the next generation of residents.”*

2.10 Following from this, five objectives were identified to guide the plan:

- Conserving the character of the village as an attractive, safe community
- Making housing more affordable for the next generation of residents
- Improving amenities and facilities
- Encouraging employment opportunities
- Reducing the impact of traffic, especially in the core of the village.

3. The Scope of the SEA

SEA Scoping Report

- 3.1 The SEA Regulations require that: “When deciding on the scope and level of detail of the information that must be included in the report, the responsible authority shall consult the consultation bodies”. In England, the consultation bodies are Natural England, the Environment Agency and Historic England.⁶ These authorities were consulted on the scope of the Cottenham Neighbourhood Plan SEA in June 2018.⁷
- 3.2 The purpose of scoping was to outline the ‘scope’ of the SEA through setting out:
- A context review of the key environmental and sustainability objectives of national, regional and local plans and strategies relevant to the Neighbourhood Plan;
 - Baseline data against which the Neighbourhood Plan can be assessed;
 - The key sustainability issues for the Neighbourhood Plan; and
 - An ‘SEA Framework’ of objectives against which the Neighbourhood Plan can be assessed.
- 3.3 Baseline information (including the context review and baseline data) is presented in **Appendix A**.

Key Sustainability Issues

- 3.4 The scoping process identified the following key sustainability issues:

Biodiversity

- A limited part of the Neighbourhood Plan area is located within SSSI Impact Risk Zones for the Berry Fen and Ouse Washes SSSI.
- A range of Biodiversity Action Plan Priority Habitats are present in the Neighbourhood Plan area.
- Habitats and ecological networks in Cottenham have the potential to come under increasing pressures from new development and recreational pressures.
- Climate change has the potential to lead to changes in the distribution and abundance of species and changes to the composition and character of habitats.

Climate change

- An increase in the built footprint of the Cottenham Neighbourhood Plan area (including associated with the delivery of new housing) has the potential to increase overall greenhouse gas emissions.
- Large areas of the Neighbourhood Plan area are within flood zone 3, which denotes a 1 in 100 year probability of flooding. This reflects that a large proportion of the parish sits at or less than 5 metres above sea level. Several residential properties within Cottenham lie within or in close proximity to areas in Flood Zone 3. The areas at highest risk of flooding in the Neighbourhood Plan area are those near the Ouse Valley which are located in Flood Zone 3b, showing that there is a 1% (1 in 20) or greater chance of flooding happening each year.
- There is a need to increase the Neighbourhood Plan area’s resilience to the effects of climate change by supporting and encouraging adaptation strategies.

⁶ In-line with Article 6(3) of the SEA Directive, these consultation bodies were selected because ‘by reason of their specific environmental responsibilities, [they] are likely to be concerned by the environmental effects of implementing plans and programme.’

⁷ No comments were received on the Scoping Report from the three statutory consultees.

Landscape and Historic Environment

- The Neighbourhood Plan area has a rich historic environment, with 66 listed buildings (one Grade I and 65 Grade II) nationally designated for their cultural heritage resource.
- 64 of the Neighbourhood Plan area's listed buildings are located within the Cottenham Conservation Area, designated because of its special architectural and historic interest.
- One scheduled monument is located in the Neighbourhood Plan area, protected by the Ancient Monuments and Archaeological Areas Act 1979.
- New development could lead to pressures on non-designated sites, villagescapes and landscapes including pressure from the loss of key built and natural features.
- Improvement in access to and enhancement of, historic environment assets and enhancements to local distinctiveness through high quality development has the potential for positive benefits for the local vitality.

Land, Soil and Water Resources

- No recent agricultural land classification has been undertaken in the parish. However, based on the 1:250,000 series of agricultural landscape classification (ALC) maps produced by Natural England, the entirety of the Neighbourhood Plan area is classified as Grade 2 or Grade 3 agricultural land. This includes areas of the best and most versatile agricultural land.
- The parish sits within the Cam and Ely Ouse catchment.
- There are no Groundwater Source Protection Zones (SPZs) or Nitrate Vulnerable Zones (NVZs) within the Neighbourhood Plan area.

Population and Community

- Based on the most recent census data available, the population of Cottenham decreased between 2001 and 2011. This is in contrast to the population of South Cambridgeshire, the East of England, and England, all of which increased in the same period. However, significant development since 2011 has led to recent increases in population in the Neighbourhood Plan area.
- There are a greater number of residents within the 60+ age category within the Neighbourhood Plan area in comparison to the totals for the East and England. However, the values for the Neighbourhood Plan area broadly align with the value for South Cambridgeshire, indicating a district-wide trend.
- A lower proportion of households are deprived in 1 or more dimensions within the Neighbourhood Plan area (44.8%) in comparison to the East (55.2%) and England (57.5%).
- Within the Neighbourhood Plan area, 73.8% of residents either own their home outright or with a mortgage, compared to 70.3% for South Cambridgeshire, 67.6% for the East and 63.3% for England.
- Based on the 2011 census data, 20.6% of residents in the Neighbourhood Plan area have no qualifications, lower than the percentages for South Cambridgeshire (21.1%), the East (22.5%), but aligning with the national total (20.7%).
- The majority of residents within the Neighbourhood Plan area consider themselves to have 'very good health' or 'good health'; this percentage is higher than the totals for the East, and England but marginally lower than South Cambridgeshire.
- A lower number of residents within the Neighbourhood Plan area consider themselves to have 'bad health' or 'very bad health' in comparison to the totals for the East, and England. This again aligns with trends shown within South Cambridgeshire.

Transportation

- Residents within the Neighbourhood Plan area have relatively poor access to local railway stations. The nearest railway station (Waterbeach) sits 4 km south-east of the

neighbourhood plan area with trains linked to the Great Northern Line and the Great Anglia Network.

- In regards to the highways network, the B1049 provides connections from Cambridge through the centre of Cottenham and continues north intersecting the A1123 at Wilburton.
- Two national network cycle routes border Cottenham: Route 51, passing through Oxfordshire, Buckinghamshire, Bedfordshire, Cambridgeshire, Suffolk and Essex forming part of the North Sea Cycle Route (EuroVelo12); and Route 11, linking Harlow in Essex with Wigginhall St Germans in Norfolk via Cambridge and Ely.
- A network of footways and existing highway routes connect Cottenham village centre with surrounding residential areas for pedestrians.
- Based on the 2011 census data, 87.7% of households in the Neighbourhood Plan area have access to at least one car or van, which is higher than the percentages for the East (81.5%), and England (74.2%); and just below totals for South Cambridgeshire (89.0%)
- The most popular method of travelling to work in the Neighbourhood Plan area is via driving a car or van (50.4%), considerably exceeding the total for England (36.9%) and slightly above the totals for South Cambridgeshire (46.9%) and the East (41.4%). The proportion of people walking and cycling to work is also below the South Cambridgeshire average.

3.5 Due to the absence of any significant air quality issues within the Neighbourhood Plan area, air quality was scoped out for the purposes of the SEA process.

SEA Framework

3.6 These issues were then translated into an ‘SEA Framework’. This SEA Framework provides a methodological framework for the appraisal of likely significant effects on the baseline. The SEA framework for the Cottenham Neighbourhood Plan is presented below.

Table 3.2: SEA Framework for the Cottenham Neighbourhood Plan

SEA Objective	Assessment questions: Will the option/proposal help to...
Biodiversity	
Protect and enhance all biodiversity and geological features.	<ul style="list-style-type: none"> • Support the status of the nationally designated sites of significance within and/or adjacent to the Neighbourhood Plan area boundary, including SSSI Risk Zones. • Support the status of local sites of significance within and/or adjacent to the Neighbourhood Plan area boundary. • Protect and enhance semi-natural habitats? • Protect and enhance priority habitats, and the habitat of priority species? • Achieve a net gain in biodiversity? • Support enhancements to multifunctional green infrastructure networks? • Support access to, interpretation and understanding of biodiversity and geodiversity?
Climate change	
Reduce the level of contribution to climate change made by activities within the Neighbourhood Plan area	<ul style="list-style-type: none"> • Reduce the number of journeys made? • Reduce the need to travel? • Promote the use of sustainable modes of transport, including walking, cycling and public transport? • Increase the number of new developments meeting or exceeding sustainable design criteria? • Generate energy from low or zero carbon sources? • Reduce energy consumption from non-renewable resources?

SEA Objective	Assessment questions: Will the option/proposal help to...
Support the resilience of the Neighbourhood Plan area to the potential effects of climate change, including flooding	<ul style="list-style-type: none"> • Ensure that inappropriate development takes place in areas at higher risk of flooding, taking into account the likely future effects of climate change? • Improve and extend green infrastructure networks in the plan area to support adaptation to the potential effects of climate change? • Sustainably manage water run-off, reducing surface water runoff (either within the plan area or downstream)? • Ensure the potential risks associated with climate change are considered through new development in the Neighbourhood Plan area?
Landscape and Historic Environment	
Protect, maintain and enhance the cultural heritage resource within the Neighbourhood Plan area, including the historic environment and archaeological assets.	<ul style="list-style-type: none"> • Conserve and enhance buildings and structures of architectural or historic interest? • Conserve and enhance the Cottenham Conservation Area? • Support the integrity of the historic setting of key buildings of cultural heritage interest? • Conserve and enhance local diversity and distinctiveness? • Support access to, interpretation and understanding of the historic environment?
Protect and enhance the character and quality of landscapes and villagescapes.	<ul style="list-style-type: none"> • Conserve and enhance landscape character? • Protect and enhance key landscape and villagescape features?
Land, Soil and Water Resources	
Ensure the efficient and effective use of land.	<ul style="list-style-type: none"> • Promote the use of previously developed land? • Avoid the development of the best and most versatile agricultural land, which in the parish may comprise Grade 2 and 3a agricultural land?
Promote sustainable waste management solutions that encourage the reduction, re-use and recycling of waste.	<ul style="list-style-type: none"> • Reduce the amount of waste produced? • Support the minimisation, reuse and recycling of waste? • Maximise opportunities for local management of waste in order to minimise export of waste to areas outside? • Encourage recycling of materials and minimise consumption of resources during construction?
Use and manage water resources in a sustainable manner.	<ul style="list-style-type: none"> • Support improvements to water quality? • Minimise water consumption?
Population and Community	
Cater for existing and future residents' needs as well as the needs of different groups in the community, and improve access to local, high-quality community services and facilities.	<ul style="list-style-type: none"> • Promote the development of a range of high quality, accessible community facilities? • Encourage and promote social cohesion and encourage active involvement of local people in community activities? • Minimise fuel poverty? • Maintain or enhance the quality of life of existing local residents? • Improve the availability and accessibility of key local facilities, including specialist services for disabled and older people?

SEA Objective	Assessment questions: Will the option/proposal help to...
Reduce deprivation and promote a more inclusive and self-contained community.	
Provide everyone with the opportunity to live in good quality, affordable housing, and ensure an appropriate mix of dwelling sizes, types and tenures.	<ul style="list-style-type: none"> • Support the provision of a range of house types and sizes? • Support enhancements to the current housing stock? • Meet the needs of all sectors of the community? • Provide quality and flexible homes that meet people's needs? • Promote the use of sustainable building techniques, including use of sustainable building materials in construction?
Improve the health and wellbeing residents within the Neighbourhood Plan area.	<ul style="list-style-type: none"> • Promote accessibility to a range of leisure, health and community facilities, for all age groups? • Provide and enhance the provision of community access to green infrastructure, in accordance with Accessible Natural Greenspace Standards? • Reduce noise pollution? • Promote the use of healthier modes of travel? • Improve access to the countryside for recreational use?
Transportation	
Promote sustainable transport use and reduce the need to travel.	<ul style="list-style-type: none"> • Encourage modal shift to more sustainable forms of travel? • Enable sustainable transport infrastructure enhancements? • Facilitate working from home and remote working? • Improve road safety? • Reduce the impact on residents from the road network?

4. What has plan making / SEA involved to this point?

Introduction

- 4.1 In accordance with the SEA Regulations the Environmental Report must include...
- An outline of the reasons for selecting the alternatives dealt with; and
 - The likely significant effects on the environment associated with alternatives / an outline of the reasons for selecting the preferred approach in light of alternatives appraised.
- 4.2 The 'narrative' of plan-making / SEA up to this point is told within this part of the Environmental Report. Specifically, this chapter explains how preparation of the current version of the Cottenham Neighbourhood Plan has been informed by an assessment of alternative locations for non-strategic scale development in the Neighbourhood Plan area.

Overview of plan making / SEA work undertaken since 2015

- 4.3 The Neighbourhood Plan Working Party has sought to encourage discussion and debate within the community about the issues and opportunities for the Neighbourhood Plan area.
- 4.4 The key methods which the Neighbourhood Plan Working Party have used within the consultation process have included:
- Public exhibitions, meetings and events;
 - Parish surveys;
 - Local newspaper and noticeboards;
 - Workshops;
 - Survey and discussion with local businesses;
 - Consultation 'windows' during which comments have been invited on draft documents.
- 4.5 The outcomes of these consultation events have informed and influenced the Neighbourhood Plan development process.

Assessment of reasonable alternatives for the Neighbourhood Plan

- 4.6 A key element of the SEA process is the appraisal of 'reasonable alternatives' for the Cottenham Neighbourhood Plan. The SEA Regulations⁸ are not prescriptive as to what constitutes a reasonable alternative, stating only that the Environmental Report should present an appraisal of the '*plan and reasonable alternatives taking into account the objectives and geographical scope of the plan*'.
- 4.7 The following sections therefore describe how the SEA process to date has informed the preferred development strategy for the Neighbourhood Plan area and potential locations for housing development. Specifically, this chapter explains how the Cottenham Neighbourhood Plan's development strategy has been shaped through considering alternative approaches for the location of non-strategic scale development in the Neighbourhood Plan area.

⁸ Environmental Assessment of Plans and Programmes Regulations 2004

Housing numbers to deliver through the Neighbourhood Plan

- 4.8 As highlighted in Chapter 2, the Cottenham Neighbourhood Plan is being prepared in the context of the emerging South Cambridgeshire Local Plan⁹, which will supersede the South Cambridgeshire Local Development Framework and cover the time period up until the year 2031. The emerging Local Plan, which has been developed alongside the emerging Cambridge Local Plan, will set out the overarching strategy for the area, setting out where development will take place, what areas should be protected and how the area will change.
- 4.9 The Local Plan outlines a spatial strategy for South Cambridgeshire through setting out provisions for the South Cambridgeshire Policy Area and the Joint Spatial Approach. The Local Plan was submitted for to the Secretary of State in March 2014 for review at Examination.
- 4.10 Following consideration of the issues raised by the Planning Inspectors at Examination, Proposed Modifications were undertaken to the Local Plan in December 2015, with further Main Modifications undertaken in January 2018.
- 4.11 Under Policy S/8 of the Local Plan, Cottenham is defined as a 'Rural Centre', and described as "*a vibrant village with the capacity for further expansion*"; the policy states that "*Development and redevelopment without any limit on individual scheme size will be permitted within the development frameworks of Rural Centres, as defined on the Policies Map, provided that adequate services, facilities and infrastructure are available or can be made available as a result of the development*".
- 4.12 Strategic Objective S/2(c) within the Local Plan aims to promote the provision of sufficient homes, jobs, services and community infrastructure to enable the smaller towns and key villages to continue to play their role as local service centres for the surrounding areas. The Local Plan identifies a number of sites to bring forward a supply of new homes and jobs within the smaller towns and key villages; however none of these are in Cottenham. As stated in Policy S/5, 19,500 new homes, including affordable housing are proposed within the district in order to achieve an appropriate scale of growth which respects its regions growth and supports the future sustainability of the settlement. These are mostly allocated to Cambridge city edge and strategic sites including Northstowe. No houses are allocated to Cottenham.
- 4.13 To gain an indication of housing needs in the parish, a Housing Needs Assessment was undertaken in 2017. This was with a view to informing the number of houses which should be allocated through the Neighbourhood Plan. The outcome of this process was that a figure of 400 homes would be required over the plan period to deliver 'locally assessed objective need'.¹⁰ The Housing Needs Assessment also highlighted that there were at least 91 households which, although not in urgent need and therefore not qualifying for subsidised accommodation, could not afford the current prices of "affordable" homes in the Neighbourhood Plan Area.
- 4.14 In 2017 and to date in 2018, in the region of 530 homes have gained planning approval in the parish, on four sites. In addition, in terms of windfall projections, recent calculations have suggested that 48 homes will be delivered through windfall sites in the plan period. On this basis, the locally objectively assessed need for housing of 400 homes is likely to be significantly exceeded in the plan period.
- 4.15 Following initial consultation events undertaken for the Neighbourhood Plan, and consideration of the findings of evidence base studies for the Neighbourhood Plan, it was determined that there continued to be a need for up to 1-2 bedroom apartments in the village. This was in addition to affordable housing provision which could be delivered through Rural Exception Sites.
- 4.16 In response to this, the Neighbourhood Plan Working Party sought to consider different options for delivering the proposed 1-2 bedroom apartments through exploring the suitability of different locations for allocating these homes in the parish.

⁹ South Cambridgeshire Local Plan (2018) [Online] Available at: <<https://scamb.sjdi-consult.net/localplan/>>

¹⁰ AECOM (2017) Housing Needs Assessment for the Cottenham Neighbourhood Plan

Assessment of a brownfield vs a greenfield first approach

- 4.17 A key element which the Neighbourhood Plan Working Party wished to explore was the extent to which a brownfield-first approach should be taken to the proposed allocations in the Neighbourhood Plan. On this basis, and to further support the intention of the Neighbourhood Plan to shape new development within the Neighbourhood Plan area, two potential options were considered, namely whether to 1) focus allocations on existing previously developed 'brownfield' sites in Cottenham or 2) widen the scope of the Neighbourhood Plan to consider allocations on previously undeveloped 'greenfield' sites in the Neighbourhood Plan area.
- 4.18 To support decision making on this element of the Neighbourhood Plan, two options were therefore considered as reasonable alternatives through the SEA process, as follows:
- Option 1: Facilitate the allocation of greenfield sites in the Neighbourhood Plan area; and
 - Option 2: Focus allocations on previously developed sites in the Neighbourhood Plan area.
- 4.19 Table 4.1 presents the findings of the appraisal of Option 1 and Option 2 outlined above. To support the assessment findings, the options have been ranked in terms of their sustainability performance against the relevant theme. It is anticipated that this will provide the reader with a likely indication of the comparative sustainability performance of the two options in relation to each theme considered.

Table 4.1: Appraisal findings: options for broad locations of development

Option 1: Facilitate the allocation of greenfield sites			
Option 2: Focus allocations on previously developed sites			
SEA theme	Discussion of potential effects and relative merits of options	Rank of preference	
		Opt 1	Opt 2
Biodiversity	<p>Potential effects on biodiversity have the potential to take place on both previously developed and greenfield land. Whilst greenfield development has the potential to lead to the loss of key landscape features of biodiversity value and impact on ecological corridors, previously developed land can support a rich biological diversity. In this context previously developed land can provide habitat for UKBAP Priority Species and contribute to wider ecological networks, as well as the provision of ecosystem services such as pollination.</p> <p>All allocations have the potential to have impacts on biodiversity assets if located inappropriately and have poor design and layout. Likewise all allocations have the potential to promote net gains in biodiversity value. In this context, for all sites, potential effects on biodiversity depend on elements such as the provision of green infrastructure to accompany new development areas and the retention and incorporation of biodiversity features.</p>	=	=

Option 1: Facilitate the allocation of greenfield sites
Option 2: Focus allocations on previously developed sites

SEA theme	Discussion of potential effects and relative merits of options	Rank of preference	
		Opt 1	Opt 2
Climate change	<p>In terms of greenhouse gas emissions, road transport is a significant contributor to emissions in the area. The extent to which the two options have the potential to support climate change mitigation through facilitating a reduced level of car dependency is therefore a key element.</p> <p>In this context, Option 2, through promoting the development of previously developed land has increased potential to promote development in locations which are more integrated with Cottenham village. This has the potential to allow at some locations easier access to services and facilities by non-car modes, as well as key bus routes in Cottenham. This has the potential to support a limitation of greenhouse gas emissions from transport.</p> <p>In terms of climate change adaptation, the redevelopment of previously developed land provides opportunities for enhancing the resilience of brownfield sites and surrounding area to the effects of climate change. This includes through green infrastructure enhancements and design and layout which helps regulate the effects of extreme weather events in the town, including through regulating surface water run-off. In this context, whilst the direct provision of green infrastructure improvements to accompany new development areas should be achievable through both options, including through mechanisms such as the community infrastructure levy, the redevelopment of brownfield land increases scope for direct improvements to climate change resilience.</p>	2	1
Landscape and Historic Environment	<p>Option 1, through facilitating greenfield development in the Neighbourhood Plan area, increases the scope for impacts on landscape character, including from visual impact and impacts on noise quality.</p> <p>The redevelopment of underutilised previously developed land offers significant potential at some locations in Cottenham for enhancing the quality of the villagescape. As such Option 2 offers opportunities for enhancements to the quality of the public realm and local distinctiveness.</p> <p>Whilst Option 2 has the potential to have direct impacts on historic environment assets located on brownfield sites, high quality development sensitive to the historic environment resource has the potential to support enhancements to villagescape character and the rejuvenation of disused or underutilise historic environment assets. Given the opportunities for supporting the reuse and rejuvenation of existing heritage assets in parts of the village, this will support the Neighbourhood Plan area's historic environment resource, if high quality design and layout is incorporated within new provision. Similarly Option 2 provides opportunities for enhancing local character and distinctiveness if high quality design is incorporated within new provision. Option 2 therefore increases opportunities to rejuvenate existing underutilised heritage assets whilst offering opportunities to enhance visual amenity and the setting of the historic environment.</p>	2	1

Option 1: Facilitate the allocation of greenfield sites
Option 2: Focus allocations on previously developed sites

SEA theme	Discussion of potential effects and relative merits of options	Rank of preference	
		Opt 1	Opt 2
Land, Soil and Water Resources	<p>In terms of soil resources, Option 1 will lead to the loss of greenfield land in the Neighbourhood Plan area. The option also has increased potential to lead to the loss of areas of the best and most versatile agricultural land (incorporating, potentially, Grade 2 and 3a land present in the Neighbourhood Plan area- this is uncertain though as recent detailed agricultural land classification has not been undertaken in most of the Neighbourhood Plan area). Option 2 however has increased potential to support the efficient use of land through the reuse of existing structures and rejuvenating previously developed land.</p> <p>In terms of water quality, it is difficult to come to a conclusion regarding the potential for development at any given location to result in negative effects without an understanding of the design measures that will be put in place. For example sustainable drainage systems – SuDS – are an effective means of minimising surface water runoff and hence pollution. However, given the potential for development on previously developed land to reduce land contamination, Option 2 has the potential to lead to medium and long term improvements to water quality.</p>	2	1
Population and Community	<p>Option 2, through promoting development on previously developed land, has increased potential to facilitate the development of new housing at locations which are more integrated within the village. This has the potential to support community cohesion, and allow at some locations easier access to village centre services and facilities by sustainable modes of transport such as walking and cycling, as well as enhance access to public transport networks.</p> <p>Option 2 also has the potential to support health and wellbeing and the quality of neighbourhoods through enhancements to the quality of the built environment in certain locations in Cottenham.</p>	2	1
Transportation	<p>Option 2, through promoting development on previously developed land, has increased potential to facilitate the development of new housing at locations which are more integrated within the village. This will support development at locations with easier access to village centre services and facilities by sustainable modes of transport such as walking and cycling. It also has the potential to lead to development with better access to the village's bus networks.</p>	1	2

Assessment of potential sites for housing allocations

4.20 In light of consultation undertaken to date on the Neighbourhood Plan, the Neighbourhood Plan Working Party took the decision to focus the proposed sites for 1-2 bedroom apartments on mixed use brownfield sites in Cottenham rather than allocating greenfield sites for this purpose.

4.21 This was with the aim of:

- Facilitating enhancements to the existing public realm of parts of the village;
- Protecting landscape character in the vicinity of the village; and
- Rejuvenating existing areas of underutilised land in the village.

4.22 In light of this decision, and to support the choice of allocations to be taken forward through the Neighbourhood Plan, six brownfield sites were identified by the Neighbourhood Plan Working Party as possible locations for the type of allocation proposed.

4.23 The sites, and their location are presented below and in Figure 4.1 below.

- **Broad Lane Industrial** (site X13 as shown in Figure 4.1)
- **Co-op** (site X6 as shown in Figure 4.1)
- **Durman Stearn** (site X4 as shown in Figure 4.1)
- **Hay Lane** (site X11 as shown in Figure 4.1)
- **Voland** (site X7 as shown in Figure 4.1)
- **Watson's Yard / Fire Station** (site X5 as shown in Figure 4.1)

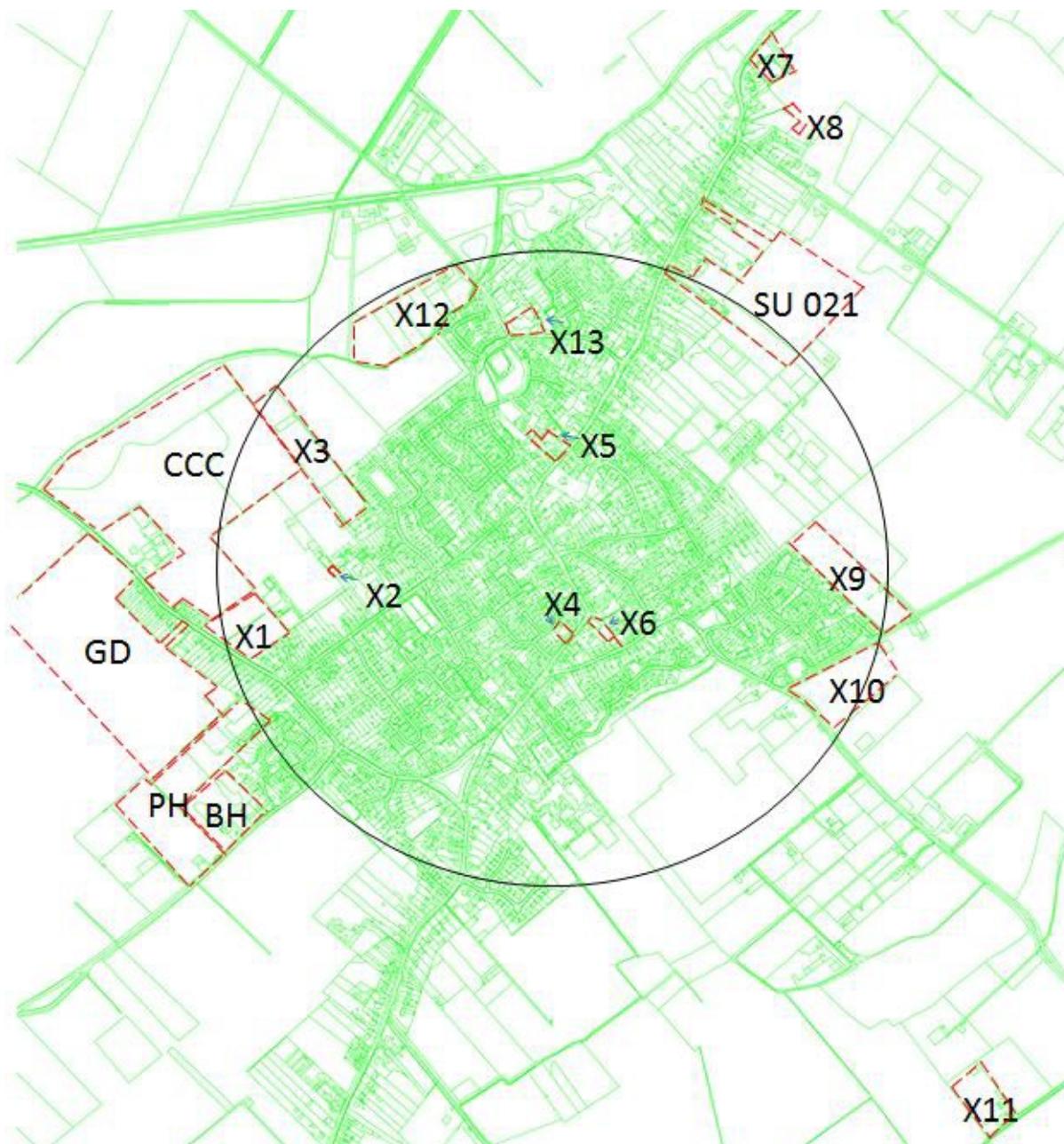


Figure 4.1: Sites assessed for the Cottenham Neighbourhood Plan

4.24 These sites have been considered in terms of their suitability for delivering 1-2 bedroom apartments. To inform this process, the SEA process has undertaken an appraisal of the key environmental constraints present at each of the sites and potential effects that may arise as a result of delivering this type of allocation at these locations. The sites have therefore been considered in relation to the SEA Framework of objectives and decision making questions developed during SEA scoping (Chapter 3) and the baseline information.

4.25 The tables below present a summary of this appraisal, and provide an indication of each site's sustainability performance in relation to the seven SEA themes.

Table 4.2: Broad Lane Industrial

SEA theme	Commentary, Broad Lane Industrial	
Biodiversity	<p>There are no European or nationally designated biodiversity or geodiversity sites within or adjacent or close to the boundary of the site. The site is not within a SSSI impact risk zone for residential, rural residential or non-rural residential development.</p> <p>There are no BAP Priority Habitats on or in the vicinity of the site.</p>	
Climate change	<p>Development of the site will lead to inevitable increases in greenhouse gas emissions from an increase in the built footprint of the village and an intensification of uses at this location, although these are unlikely to be significant.</p> <p>In relation to adapting to the effects of climate change, the site is not located within identified flood risk zones for fluvial or surface water flooding. However parts of Broad Lane (off site) are 'medium' risk of surface water flooding, denoting that each year this area has a chance of flooding of between 1% and 3.3%</p> <p>The site is located approximately 600m from the village centre.</p>	
Landscape and Historic Environment	<p>In terms of villagescape character, the site is on a previously developed site and, given existing uses, offers potential to enhance the quality of the public realm.</p> <p>In relation to the historic environment, the site is c.35m north east of the Cottenham Moated Site scheduled monument. However the site is well screened from the scheduled monument, and redevelopment of the site for residential uses is unlikely to adversely affect the fabric or setting of this nationally designated heritage feature.</p> <p>The site is not within the setting of the Cottenham Conservation Area or listed buildings.</p>	
Land, Soil and Water Resources	<p>The site comprises a brownfield site. Development on the site has the potential to support the efficient use of land through the rejuvenation of previously developed land and through precluding the loss of productive agricultural land. The site is not located within a Groundwater Source Protection Zone.</p>	
Population and Community	<p>Allocation of the site will contribute positively towards meeting local housing needs, through the delivery of 1-2 bedroom apartments.</p> <p>The site is located at relative proximity to services and facilities in Cottenham village centre (c.600m) which will limit the need for residents to travel for day-to-day services and facilities.</p>	
Transportation	<p>The site is located at relative proximity to services and facilities in Cottenham village centre (c.600m) which will limit the need for residents to travel for day-to-day services and facilities. The site is approximately 550m from the nearest frequent bus service (Citi 8), which can be accessed at the Lambs Lane bus stop.</p>	
Key		
Likely adverse effect (without mitigation measures)		Likely positive effect
Neutral/no effect		Uncertain effects

Table 4.3: Co-op

SEA theme	Commentary, Co-op	
Biodiversity	<p>There are no European or nationally designated biodiversity or geodiversity sites within or adjacent or close to the boundary of the site. The site is not within a SSSI impact risk zone for residential, rural residential or non-rural residential development.</p> <p>There are no BAP Priority Habitats on or in the vicinity of the site.</p>	
Climate change	<p>Development of the site will lead to inevitable increases in greenhouse gas emissions from an increase in the built footprint of the village and an intensification of uses at this location. These effects are however unlikely to be significant. The site is accessible to the services and facilities in the village centre, as well as bus routes. This will help limit greenhouse gas emissions from transport.</p> <p>In relation to adapting to the effects of climate change, the site is not located within identified flood risk zones for fluvial or surface water flooding.</p>	
Landscape and Historic Environment	<p>In terms of villagescape character, the site is on a previously developed site and, given existing uses, offers potential to enhance the quality of the public realm.</p> <p>In relation to the historic environment, the site is within the Cottenham Conservation Area. It is also within 20m of the Grade II listed 279 High Street (although is screened by 277 High Street). Whilst the redevelopment of the site offers potential to enhance the quality of the public realm and villagescape character within this area of sensitivity for the historic environment, this will depend on the design, scale and layout of development.</p>	
Land, Soil and Water Resources	<p>The site comprises a brownfield site. Development on the site has the potential to support the efficient use of land through the rejuvenation of previously developed land and through precluding the loss of productive agricultural land. The site is not located within a Groundwater Source Protection Zone.</p>	
Population and Community	<p>Allocation of the site will contribute positively towards meeting local housing needs, through the delivery of 1-2 bedroom apartments.</p> <p>The site is located in excellent proximity to nearby services and facilities in Cottenham village centre. This will support accessibility for residents to day-to-day services and facilities.</p>	
Transportation	<p>The site is located in close proximity to services and facilities in Cottenham village centre. This will limit the need for residents to travel for day-to-day services and facilities. The site has good access to bus services (including Citi 8) serving the village.</p>	
Key		
Likely adverse effect (without mitigation measures)		Likely positive effect
Neutral/no effect		Uncertain effects

Table 4.4: Durman Stearn

SEA theme	Commentary, Durman Stearn	
Biodiversity	<p>There are no European or nationally designated biodiversity or geodiversity sites within or adjacent or close to the boundary of the site. The site is not within a SSSI impact risk zone for residential, rural residential or non-rural residential development.</p> <p>There are no BAP Priority Habitats on or in the vicinity of the site.</p>	
Climate change	<p>Development of the site will lead to inevitable increases in greenhouse gas emissions from an increase in the built footprint of the village and an intensification of uses at this location. These effects are however unlikely to be significant. The site is also accessible to the services and facilities in the village centre, as well as bus routes. This will help limit greenhouse gas emissions from transport.</p> <p>In relation to adapting to the effects of climate change, the site is not located within identified flood risk zones for fluvial or surface water flooding.</p>	
Landscape and Historic Environment	<p>In terms of villagescape character, the site is on a previously developed site and offers some potential to enhance the quality of the public realm.</p> <p>In relation to the historic environment, the site is within the Cottenham Conservation Area. It is also located 35m and within the setting of the Grade II listed 279 High Street. Whilst the redevelopment of the site offers potential to enhance the quality of the public realm</p>	

SEA theme	Commentary, Durman Stearn	
	and villagescape character within this area of sensitivity for the historic environment, this will depend on the design, scale and layout of development.	
Land, Soil and Water Resources	The site comprises a brownfield site. Development on the site has the potential to support the efficient use of land through the rejuvenation of previously developed land and through precluding the loss of productive agricultural land. The site is not located within a Groundwater Source Protection Zone.	
Population and Community	Allocation of the site will contribute positively towards meeting local housing needs, through the delivery of 1-2 bedroom apartments. The site is located in excellent proximity to nearby services and facilities in Cottenham village centre. This will support accessibility for residents to day-to-day services and facilities.	
Transportation	The site is located in close proximity to services and facilities in Cottenham village centre. This will limit the need for residents to travel for day-to-day services and facilities. The site has good access to bus services (including Citi 8) serving the village centre.	
Key		
Likely adverse effect (without mitigation measures)		Likely positive effect
Neutral/no effect		Uncertain effects

Table 4.5: Hay Lane

SEA theme	Commentary, Hay Lane	
Biodiversity	There are no European or nationally designated biodiversity or geodiversity sites within, adjacent or close to the boundary of the site. The site is not within a SSSI impact risk zone for residential, rural residential or non-rural residential development. The site is adjacent to an area of Deciduous Woodland BAP Priority Habitat, which is located to the north west of the site. Whilst direct impacts on the woodland from landtake and fragmentation are not anticipated, disturbance may take place from noise, light pollution or trampling from enhanced access.	
Climate change	Development of the site will lead to inevitable increases in greenhouse gas emissions from an increase in the built footprint of the parish and an intensification of uses at this location, although these are unlikely to be significant. The site is located 2km from the services and facilities in Cottenham village centre, as well as the bus routes serving the village. As such development will increase the need to travel for key amenities, doing less to limit greenhouse gas emissions from transport. In relation to adapting to the effects of climate change, the southern 25% of the site is within an area of 'medium' fluvial flood risk, denoting that each year this area has a chance of flooding of between 1% and 3.3%. Parts of the site are at 'low' risk of surface water flooding, denoting that each year this area has a chance of surface water flooding of 0.1% and 1%.	
Landscape and Historic Environment	Whilst the site is on a previously developed site and, given existing uses, offers potential to enhance the quality of the public realm, landscape impacts are likely to be high given the flat topography of the area and its isolated location. The site is not within the setting of designated historic environment assets, is not within the setting of a conservation area, and will not impact on features listed on the historic environment record.	
Land, Soil and Water Resources	The site comprises a brownfield site. Development on the site has the potential to support the efficient use of land through the rejuvenation of previously developed land and through precluding the loss of productive agricultural land. The site is not located within a Groundwater Source Protection Zone.	
Population and Community	Allocation of the site will contribute positively towards meeting local housing needs, through the delivery of 1-2 bedroom apartments. Accessibility is a key influence on the quality of life of residents. In this context the site is in poor proximity to the services and facilities in Cottenham village centre, which is located 2km away. It is also located at a similar distance from key bus routes. This will limit residents' accessibility to services and facilities.	

SEA theme	Commentary, Hay Lane	
Transportation	The site is in poor proximity to the services and facilities in Cottenham village centre, which is located 2km away. This will increase the need to travel to key amenities. The site is also located at some distance from key public transport networks, being approximately 2km from the closest bus stop, and is not located in close proximity to dedicated cycle routes.	
Key		
Likely adverse effect (without mitigation measures)		Likely positive effect
Neutral/no effect		Uncertain effects

Table 4.6: Voland

SEA theme	Commentary, Voland	
Biodiversity	There are no European or nationally designated biodiversity or geodiversity sites within or adjacent or close to the boundary of the site. The site is not within a SSSI impact risk zone for residential, rural residential or non-rural residential development. There are no BAP Priority Habitats on or in the vicinity of the site.	
Climate change	Development of the site will lead to inevitable increases in greenhouse gas emissions from an increase in the built footprint of the parish and an intensification of uses at this location, although these are unlikely to be significant. The site is located 1.4km from the services and facilities in Cottenham village centre. As such residential development at this location may increase the need to travel for key amenities, doing less to limit greenhouse gas emissions from transport. In relation to adapting to the effects of climate change, the site is not located within identified flood risk zones for fluvial or surface water flooding.	
Landscape and Historic Environment	In terms of villagescape character, the site is on a previously developed site on the edge of the village. The site is on the edge of the Cottenham Conservation Area. Whilst screened from the church itself, the site is within the setting of the churchyard of the Grade I listed Church of All Saints. Given existing uses, the site offers potential to enhance the quality of the public realm if high quality and sensitive design and layout are incorporated within development. Impacts are therefore uncertain, and dependent on these elements.	
Land, Soil and Water Resources	The site comprises a brownfield site. Development on the site has the potential to support the efficient use of land through the rejuvenation of previously developed land and through precluding the loss of productive agricultural land. The site is not located within a Groundwater Source Protection Zone.	
Population and Community	Allocation of the site will contribute positively towards meeting local housing needs, through the delivery of 1-2 bedroom apartments. Accessibility is a key influence on the quality of life of residents. In this context the site is relatively distant to the services and facilities in Cottenham village centre, which is located 1.6km away. The site is also 1km to the nearest frequent bus service (Citi 8), which can be accessed via the Lambs Lane bus stop	
Transportation	The site is in relatively poor proximity to the services and facilities in Cottenham village centre, which is located 1.6km away. This will increase the need to travel to key amenities. The site is also 1km to the nearest frequent bus service (Citi 8), which can be accessed via the Lambs Lane bus stop	
Key		
Likely adverse effect (without mitigation measures)		Likely positive effect
Neutral/no effect		Uncertain effects

Table 4.7: Watson’s Yard / Fire Station

SEA theme	Commentary, Watson’s Yard / Fire Station		
Biodiversity	<p>There are no European or nationally designated biodiversity or geodiversity sites within or adjacent or close to the boundary of the site. The site is not within a SSSI impact risk zone for residential, rural residential or non-rural residential development.</p> <p>There are no BAP Priority Habitats on or in the vicinity of the site.</p>		
Climate change	<p>Development of the site will lead to inevitable increases in greenhouse gas emissions from an increase in the built footprint of the village and an intensification of uses at this location, although these are unlikely to be significant.</p> <p>In relation to adapting to the effects of climate change, the site is not located within identified flood risk zones for fluvial or surface water flooding.</p> <p>The site is located in close proximity to the village centre, reducing the need to travel for key services and facilities. This will help limit emissions from transport.</p>		
Landscape and Historic Environment	<p>In terms of villagescape character, the site is on a previously developed site and, given existing uses, offers potential to enhance the quality of the public realm.</p> <p>In relation to the historic environment, the site is not within the setting of designated sites. The site is however located within the Cottenham Conservation Area. Given existing uses, the site offers potential to enhance the quality of the public realm if high quality and sensitive design and layout are incorporated within development. Impacts are therefore uncertain, and dependent on these elements.</p>		
Land, Soil and Water Resources	<p>The site comprises a brownfield site. Development on the site has the potential to support the efficient use of land through the rejuvenation of previously developed land and through precluding the loss of productive agricultural land. The site is not located within a Groundwater Source Protection Zone.</p>		
Population and Community	<p>Allocation of the site will contribute positively towards meeting local housing needs, through the delivery of 1-2 bedroom apartments.</p> <p>The site is located in close proximity to the amenities within Cottenham village centre. This will limit the need for residents to travel for day-to-day services and facilities.</p>		
Transportation	<p>The site is located in close proximity to services and facilities in Cottenham village centre. This will limit the need for residents to travel for day-to-day services and facilities. The site is located in good proximity to local bus services, including Citi 8.</p>		
Key			
Likely adverse effect (without mitigation measures)		Likely positive effect	
Neutral/no effect		Uncertain effects	

Summary of SEA site appraisal findings

4.26 The following table presents a summary of the findings of the site appraisal undertaken through the SEA process.

Table 4.8: Summary of SEA site appraisal findings

Site	Biodiversity	Climate change	Landscape and Historic Environment	Land, soil and water resources	Population and Community	Transport
Broad Lane Industrial	Yellow	Yellow	Blue	Green	Green	Green
Co-op	Yellow	Green	Blue	Green	Green	Green
Durman Stearn	Yellow	Green	Blue	Green	Green	Green
Hay Lane	Blue	Red	Red	Green	Red	Red
Voland	Yellow	Red	Blue	Green	Red	Red
Watson's Yard	Yellow	Green	Blue	Green	Green	Green
Key						
Likely adverse effect (without mitigation measures)			Red	Likely positive effect		Green
Neutral/no effect			Yellow	Uncertain effects		Blue

Current approach in the Neighbourhood Plan

4.27 In light of consultation undertaken to date on the Neighbourhood Plan, and consideration of the site assessment and appraisal findings presented above, the Neighbourhood Plan Working Party took the decision to focus the proposed development of 1-2 bedroom apartments on brownfield, mixed use sites located in walking distance to Cottenham village centre. This was to support accessibility to services and facilities and promote the vitality of the village centre.

4.28 In light of this choice, the following three sites were allocated for these purposes:

- Durman Stearn
- Watson's Yard / Fire Station
- Co-op

4.29 Whilst the three sites will enable the delivery of a range of housing units which will help deliver local housing needs, the Neighbourhood Working Party acknowledged that there may need to be an additional element of housing delivery over the plan period to meet affordable needs in the village. As such, the submission version of the Neighbourhood Plan enables the delivery of predominantly locally affordable homes on greenfield Rural Exception Sites near the village centre over the 15-year plan period, if a range of criteria are met. These criteria include with regard to accessibility to the village centre and local bus routes; a stipulation that homes should be offered to those with a local connection; new walking and cycling provision is incorporated within new development; and appropriate design and layout is incorporated within new design.

4.30 This additional affordable housing provision has not been taken forward as site allocations in the Neighbourhood Plan; instead the Neighbourhood Plan supports the principle of such development if the conditions set out in the Neighbourhood Plan policies are met. For this reason, further spatial options have not been assessed as reasonable alternatives in relation to this proposed provision.

Neighbourhood Plan policies

4.31 To support the implementation of the vision, objectives and preferred spatial strategy for the Neighbourhood Plan, the submission version of the Cottenham Neighbourhood Plan puts forward 26 policies to guide development in the Neighbourhood Plan area.

4.32 The policies, which were developed following extensive community consultation and evidence gathering, are as follows:

Table 4.9: Cottenham Neighbourhood Plan policies

Policy Number	Policy Name
Policy COH/1-1	Landscape character
Policy COH/1-2	Heritage Assets
Policy COH/1-3	Non-designated heritage assets
Policy COH/1-4	Village character – alterations and extensions
Policy COH/1-5	Village character – new build
Policy COH/1-6	Village character – the village core or centre
Policy COH/1-7	Local Green Space
Policy COH/1-8	Protected Village Amenity Areas
Policy COH/2-1	Development framework
Policy COH/2-2	Large site design
Policy COH/2-3	Use of brownfield sites for housing
Policy COH/2-4	Locally affordable housing
Policy COH/3-1	Medical & Drop-in & Chat Centre
Policy COH/3-1.1	Durman Stearn site
Policy COH/3-1.2	Co-op site
Policy COH/3-2	Supermarket
Policy COH/3-2.1	Watson's Yard / Fire Station site
Policy COH/4-1	Recreation & Sports Hub
Policy COH/4-2	Multi-purpose Village Hall
Policy COH/4-3	Nursery
Policy COH/4-4	Sports facilities
Policy COH/5-1	New Recreation Ground
Policy COH/6-1	Extension of burial grounds
Policy COH/7-1	Village employment
Policy COH/7-2	Rural employment
Policy COH/7-3	New Durman Stearn site

5. What are the appraisal findings at this current stage?

Introduction

- 5.1 The aim of this chapter is to present appraisal findings and recommendations in relation to the current submission version of the Cottenham Neighbourhood Plan. This chapter presents:
- An appraisal of the submission version of the Cottenham Neighbourhood Plan under the six SEA theme headings; and
 - The overall conclusions at this current stage and recommendations for the next stage of plan-making.

Approach to this appraisal

- 5.2 The appraisal is structured under the six SEA themes taken forward for the purposes of the SEA.
- 5.3 For each theme, 'significant effects' of the current version of the plan on the baseline are predicted and evaluated. Account is taken of the criteria presented within Schedule 2 of the Regulations. So, for example, account is taken of the probability, duration, frequency and reversibility of effects as far as possible. These effect 'characteristics' are described within the assessment as appropriate.
- 5.4 Every effort is made to identify / evaluate effects accurately; however, this is inherently challenging given the high level nature of the plan. The ability to predict effects accurately is also limited by understanding of the baseline and the nature of future planning applications. Because of the uncertainties involved, there is a need to exercise caution when identifying and evaluating significant effects and ensure all assumptions are explained. In many instances it is not possible to predict significant effects, but it is possible to comment on merits (or otherwise) in more general terms.

Biodiversity

- 5.5 In terms of the allocations proposed through the Neighbourhood Plan, none of the sites are in locations with sensitivity for biodiversity, and development at the locations proposed will not lead to the loss of key habitats or impact on ecological networks.
- 5.6 In recognition of opportunities for securing biodiversity enhancements through new development areas, a number of the policies seek to initiate new planting which enhance ecological networks. This includes Policy COH/1.1 (Landscape character) and Policy COH/2-4: Locally affordable housing), which seek to incorporate hedges and native tree species within new development areas to create wildlife corridors, Policy COH/1-4 (Village character – alterations and extensions) and Policy COH/1-5 (Village character – new build) which seek to protect mature native species trees and initiate planting of new native tree species in gardens and Policy COH/6-1 (Extension of burial grounds), which seeks to initiate native planting in new burial grounds. Policy COH/1-7: Local Green Space also seeks to protect Les King Wood, which is an area of biodiversity value.

Climate change

- 5.7 The Cottenham Neighbourhood Plan contains a number of policies which have direct relevance to climate change considerations. The assessment of the Neighbourhood Plan's performance with regard to climate change is outlined below, with discussions relating to climate change mitigation and climate change adaptation.

Climate change mitigation

- 5.8 In terms of climate change contribution, per capita greenhouse gas emissions generated in the Neighbourhood Plan area may continue to decrease with the wider adoption of energy efficiency measures, renewable energy production and new technologies. However, increases in the built footprint of the Neighbourhood Plan area would contribute to increases in the absolute levels of greenhouse gas emissions.
- 5.9 Whilst the delivery of homes through the Neighbourhood Plan will increase greenhouse gas emissions either directly through construction, or indirectly through an increase in population, the built footprint of the area and associated travel and consumption behaviours, this level of housing would likely be mirrored by the approval of planning applications. As such the level of development proposed through the Neighbourhood Plan will not lead to increases in greenhouse gas emissions over and above that would be seen otherwise.
- 5.10 The spatial strategy for the Neighbourhood Plan will help limit per capita greenhouse gas emissions through seeking to focus new development in close proximity to Cottenham village centre. These areas are those with access to the broadest range of services, facilities and amenities in the parish, as well as local bus networks. This will help reduce the need for residents to travel and reduce car dependency, helping to limit emissions from road transport. This will be supported by a number of the policies seeking to explicitly encourage walking and cycling through enhanced pedestrian and cycle provision. This is discussed in more detail under the 'Transportation' SEA theme below.
- 5.11 The Neighbourhood Plan does not seek to apply energy efficiency standards within new development. In this context the Code for Sustainable Homes was formally withdrawn in a Ministerial Statement published on 25th March 2015, which outlined the Government's new national planning policy on the setting of technical standards for new dwellings and Local Plan making. In addition to this, the Deregulation Act also brought in a clause which amended the Planning and Energy Act 2008 to prevent local authorities from requiring higher levels of energy efficiency than existing Building Regulations. On this basis, it would not be appropriate for the Neighbourhood Plan to set specific targets for energy efficiency as part of a design policy.

Climate change adaptation

- 5.12 None of the sites allocated in the Neighbourhood Plan have significant flood risk issues. It is recognised though that the provisions of the NPPF and national policy will help guide development away from flood risk areas and ensure that appropriate mitigation measures are implemented. Policy COH/2-2 (Large site design) also seeks to ensure development will not overburden Cottenham's drainage network and "*minimises flood risk by reducing all surface water run-off rates to within local Drainage Board limits, using an adequately-sized and controlled sustainable drainage systems*". It also requires that all hard surfaced paths and driveways are permeable. This will help limit the risk of surface water flooding.
- 5.13 As highlighted by the NPPF, well planned green infrastructure can help an area adapt to, and manage the risks of climate change (including flood risk). Enabling and providing for green infrastructure within the Neighbourhood Plan area is therefore a key way in which the Cottenham Neighbourhood Plan can help to promote climate change adaptation measures. Responding to this, Policy COH/1-7 (Local Green Space) and Policy COH/1-8 (Protected Village Amenity Areas) designate a number of areas within the Neighbourhood Plan area as Local Green Space and Protected Village Amenity Areas. Additionally, the Neighbourhood Plan seeks to enhance the multi-functionality of existing open space. This should support positive gains with regard to climate change adaptation measures within the Neighbourhood Plan area.

Landscape and Historic Environment

- 5.14 The Neighbourhood Plan area has a distinctive character, with an edge-of-fen landscape character and a rich historic environment resource.
- 5.15 In terms of the proposed allocations within the Neighbourhood Plan, all of the allocations are located on previously developed land. This will help limit potential effects on landscape

- character, through limiting development which will impact on the edge-of-fen character of the Neighbourhood Plan area. Whilst the Neighbourhood Plan facilitates the further development of greenfield land for affordable housing of local need, this will not be delivered through specific Neighbourhood Plan allocations. As such it is not possible to evaluate the impact on landscape and townscape character from this potential provision.
- 5.16 More broadly, the Neighbourhood Plan has a strong focus on protecting and enhancing landscape character, the quality of the public realm and local distinctiveness. Policy COH/1-1 (Landscape character) seeks to protect nine key views in and around the village. In addition to protecting landscape character in key locations, this will also support the setting of and viewpoints to and from key features of historic environment interest in the village, including the Grade I listed Church of All Saints. The policy also seeks to plant hedges and native tree species to facilitate screening, and limit light pollution at the village edge. Supported by Policy COH/7-2 (Rural employment), which seeks to limit impacts of new rural employment provision on the edge-of-fen landscape, this will support the landscape character of the open countryside and the setting of Cottenham within it.
- 5.17 The majority of the remaining policies in the Neighbourhood Plan aim to protect and enhance villagescape character. For example, Policy COH/1-4 to COH/1-6 set out a range of provisions for ensuring the design, scale and layout of new builds, extensions, alterations and new village centre proposals reflects existing villagescape character, and secure enhancements to character. This will be supported by Policy COH/2-2 (Large site design), which seeks to ensure landscape design criteria are applied in the layout, form and urban design qualities of larger development sites, and “*...imaginative and original designs to extend and renew the distinctive character and traditions of Cottenham’s built environment*” are applied.
- 5.18 Villagescape character at specific locations will be supported by the policies for the medical & drop-in & chat centre (Policy COH/3-1), the Durman Stearn site (Policy COH/3-1.1), the Co-op site (Policy COH/3-1.12), the supermarket site (Policy COH/3-2), the Watson’s Yard / Fire Station site (Policy COH/3-2.1), the proposed multi-purpose village hall (Policy COH/4-2), the nursery (Policy COH/4-3) and the burial ground (Policy COH/6-1). These set out a significant number of provisions for ensuring that new development proposals at these locations respect local character and local distinctiveness and contribute to a high quality and distinctive public realm which helps enhance wider villagescape character.
- 5.19 Whilst the policies discussed above will also support the fabric and setting of the historic environment, a number of further policies directly seek to conserve and enhance the fabric and setting of specific features and areas of historic environment interest in the parish. In this context Policy COH/1-2 (Heritage assets) states that planning applications that would result in harm to any designated or non-designated heritage asset in Cottenham, including scheduled monuments, listed buildings or the Cottenham Conservation Area or their settings “*...will be not normally be approved.*” Recognising that not all heritage assets are nationally or locally designated, Policy COH/1-3 (Non-designated heritage assets) subsequently identifies nine features of local importance for architectural character, to be considered if planning applications come forward in their vicinities.
- 5.20 In the context of the above, the submission version of the Neighbourhood Plan provides a robust basis for the protection and enhancement of landscape and villagescape character in the Neighbourhood Plan area and the conservation and enhancement of historic environment assets and their settings.

Land, Soil and Water Resources

- 5.21 The Neighbourhood Plan will support the efficient use of land. In this context the development strategy for the Neighbourhood Plan seeks to focus new development on previously developed land, including at the Durman Stearn site (Policy COH/3-1.1), the Co-op site (Policy COH/3-1.12) and the Watson’s Yard / Fire Station site (Policy COH/3-2.1). This will be reinforced by Policy COH/2-3 (Use of brownfield sites for housing), and Policy COH/7-2 (Rural employment), which seeks to re-use redundant or disused buildings for rural employment uses. This will promote the efficient use of land, which will be further supported by the proposed intensification

of uses at these locations, and help to limit the loss of agricultural land in the Neighbourhood Plan area.

- 5.22 Whilst the Neighbourhood Plan seeks to take a 'brownfield first' approach, Policy COH/2-4 (Locally affordable housing) facilitates the delivery of up to 90 predominantly locally affordable homes on greenfield Rural Exception Sites, if a set of criteria are met. Whilst the approach does not include allocations, this has the potential to lead to the loss of productive agricultural land in the Neighbourhood Plan area. However, given the detail location of such development has not been established, it is uncertain whether this will lead to the loss the Best and Most Versatile Agricultural Land.
- 5.23 In terms of water quality, there are no groundwater Source Protection Zones or Nitrate Vulnerable Zones which have the potential to be affected by Neighbourhood Plan proposals.

Population and Community

- 5.24 The Cottenham Neighbourhood Plan sets out a range of provisions which will support the quality of life of the parish's residents.
- 5.25 In terms of housing numbers, the Neighbourhood Plan area has already delivered its housing requirement needed over the plan period. However, as acknowledged through the Neighbourhood Plan, there remains a demand for locally affordable housing, and Cottenham will have a shortfall of around 90 locally affordable homes for local people by 2031.
- 5.26 In light of this, the Neighbourhood Plan allocates 1-2 bedroom apartments across three sites homes in the village centre. It also facilitates the development of around 90 predominantly locally affordable homes on greenfield Rural Exception Sites near the village centre. Given this is anticipated to meet locally objectively assessed housing needs, it is assumed that this growth quantum will meet the housing needs arising locally.
- 5.27 Accessibility to services and facilities is a key influence on the quality of life of residents and community cohesion. In relation to the proposed housing, retail and employment allocations taken forward through the Neighbourhood Plan, these are accessible to the key services and facilities present in the village centre, and are also accessible to key public transport links, including the Citi 8 bus service. Accessibility will be further supported by the Neighbourhood Plan's focus on supporting the vitality of the village centre and new community provision. This includes through: the provision of a new medical & drop-in & chat centre (Policy COH/3-1); small retail or office units at the Durman Stearn site within refurbished buildings fronting the High Street (Policy COH/3-1.1); small retail or office units at the Co-op site (Policy COH/3-1.2); small retail or office units at the Watson's Yard / Fire Station site (Policy COH/3-2.1); new sports and recreational facilities (Policy COH/4-4 and Policy COH/5-1) and the development of community, recreation and sports facilities at the Recreation Ground and near Cottenham Primary School (Policy COH/4-1); a new multi-purpose Village Hall (Policy COH/4-2); a new nursery at the Recreation Ground (Policy COH/4-3); and extensions to the village's burial grounds (Policy COH/6-1). The vitality of the Neighbourhood Plan area will be further supported by Policy COH/7-1 (Village employment), which seeks to encourage a wide range of small scale retail and commercial facilities within the village centre, and Policy COH/7-2 (Rural employment) which encourages rural employment provision linked to fenland-related eco-tourism or outdoor pursuits, or agro-tourism opportunities. Policy COH/1-5 (Village character – new build) will also enhance economic opportunities through promoting high quality communications infrastructure to facilitate home working or running a business from home.
- 5.28 There is now robust evidence that access to the natural environment improves people's health and wellbeing through encouraging healthy outdoor recreation and relaxation. In this context the expansion of recreational and sports facilities in the village promoted by the Neighbourhood Plan will be supported by the Policy COH/1-7 (Local Green Space) and Policy COH/1-8 (Protected Village Amenity Areas), which designate a number of areas within the Neighbourhood Plan area as Local Green Space and Protected Village Amenity Areas. Additionally, the Neighbourhood Plan seeks to enhance the multi-functionality of existing open spaces in the parish. This will promote recreational opportunities, with benefits for health and wellbeing.

- 5.29 Overall, it is considered that the Neighbourhood Plan is likely to lead to significant long term positive effects for community vitality and health and wellbeing.

Transportation

- 5.30 The Neighbourhood Plan has a close focus on supporting the use of sustainable modes of transport. In terms of the proposed allocations taken forward through the Neighbourhood Plan, these are accessible to the key services and facilities present in the village centre, and are also accessible to key public transport links, including the Citi 8 bus service. As discussed under the Population and Community theme, accessibility will be further supported by the Neighbourhood Plan's focus on supporting the vitality of the village centre, and the expansion of community facilities in the village, as well as an enhancement to communication infrastructure. This will help reduce the need to travel for key services and facilities, and promote accessibility to key amenities by alternative modes of transport to the private car.
- 5.31 Supporting this further, the Neighbourhood Plan directly seeks to promote the use of sustainable modes of transport. In this context Policy COH/2-2 (Large site design) seeks to ensure the provision of safe off-road pedestrian, cyclist and mobility scooter or Community Transport access to key village facilities from such developments. It also seeks to promote the enhancement of public transport connections in the village, and facilitate enhancements such as segregated cycleways and footpaths and other accessibility improvements within the village centre. It also seeks to facilitate additional pedestrian and cycle enhancements in the village, such as secure cycle parking, improved pavements and safer crossings.
- 5.32 This will also be supported by Policy COH/2-4 (Locally affordable housing), which seeks to ensure that provision for locally affordable homes on greenfield Rural Exception Sites are within easy walking distance of a well-served (bi-directional service to Cambridge) bus stop, and appropriate footways or carriageways are incorporated through the development site to improve interconnectivity with the village centre, existing footways or community facilities.
- 5.33 Sustainable transport use will also be encouraged by the policies for the Durman Stearn site (Policy COH/3-1.1), the Co-op site (Policy COH/3-1.12), the supermarket site (Policy COH/3-2), the Watson's Yard / Fire Station site (Policy COH/3-2.1), the proposed multi-purpose village hall (Policy COH/4-2), the nursery (Policy COH/4-3) and the New Recreation Ground (Policy COH/5-1). These policies seek to ensure that new development at these locations contribute to safer pedestrian, cycle and vehicular access by the inclusion of appropriate on-site parking and delivery facilities.

Conclusions at this current stage

- 5.34 The assessment has concluded that the current version of the Cottenham Neighbourhood Plan is likely to lead to significant long term positive effects in relation to the 'Population and Community' and 'Transportation' SEA themes. These benefits largely relate to the Neighbourhood Plan's focus on providing new housing, employment and retail development to meet local needs in accessible locations, the provision of new community infrastructure in Cottenham, the protection and enhancement of green infrastructure networks in the area, an expansion of local pedestrian/cycle networks, and the protection and enhancement of the quality of the public realm and neighbourhood distinctiveness.
- 5.35 The allocations proposed through the Neighbourhood Plan will potentially enable enhancements to be made to the quality and vitality of the villagescape and the setting of the historic environment at locations of relatively poor public realm in Cottenham. Supporting this further, the Neighbourhood Plan has a close focus on conserving and enhancing landscape and villagescape character in the parish, and on protecting and enhance the setting and fabric of the historic environment. Taken together, these will have the potential to lead to long term positive effects in relation to the 'Landscape and Historic Environment' themes. Longer term, this includes through limiting negative effects from potential new development areas in the parish, and securing enhancements to local distinctiveness.

- 5.36 Whilst the Neighbourhood Plan seeks to take a 'brownfield first' approach, the Neighbourhood Plan facilitates the delivery of up to 90 predominantly locally affordable homes on greenfield Rural Exception Sites, if a set of criteria are met. Whilst the approach does not include allocations, this has the potential to lead to the loss of productive agricultural land in the Neighbourhood Plan area. However, given the detailed location of such development has not been established, it is unclear whether this will lead to the loss of areas of the Best and Most Versatile Agricultural Land. As such, impacts in relation to the 'Land, Soil and Water Resources' SEA theme are uncertain.
- 5.37 The Cottenham Neighbourhood Plan will initiate a number of beneficial approaches regarding the 'Biodiversity' and 'Climate Change' SEA themes. These are not though considered to be significant in the context of the SEA process given the scope of the Neighbourhood Plan and the scale of proposals.

6. What are the next steps?

- 6.1 This Environmental Report accompanies the Cottenham Neighbourhood Plan for submission to the Local Planning Authority, South Cambridgeshire District Council, for subsequent Independent Examination.
- 6.2 At Independent Examination, the Neighbourhood Plan will be considered in terms of whether it meets the Basic Conditions for Neighbourhood Plans and is in general conformity with the South Cambridgeshire Local Plan.
- 6.3 If Independent Examination is favourable, the Neighbourhood Plan will be subject to a referendum, organised by South Cambridgeshire District Council. If more than 50% of those who vote agree with the Neighbourhood Plan, then it will be 'made'. Once made, the Cottenham Neighbourhood Plan will become part of the Development Plan for Cottenham Parish.

Appendix A: Context Review and Baseline

A.1. Biodiversity

Context Review

At the European level, the EU Biodiversity Strategy¹¹ was adopted in May 2011 in order to deliver an established new Europe-wide target to 'halt the loss of biodiversity and the degradation of ecosystem services in the EU by 2020'.

Key messages from the National Planning Policy Framework (NPPF) include:

- Contribute to the Government's commitment to halt the overall decline in biodiversity by minimising impacts and achieving net gains in biodiversity wherever possible.
- Promote the 'preservation, restoration and re-creation of priority habitats, ecological networks' and the 'protection and recovery of priority species'. Plan for biodiversity at a landscape-scale across local authority boundaries.
- Set criteria based policies for the protection of internationally, nationally and locally designated sites, giving weight to their importance not just individually but as a part of a wider ecological network.
- Take account of the effects of climate change in the long term. Adopt proactive strategies to adaptation and manage risks through adaptation measures including green infrastructure (i.e. 'a network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities').
- Plan positively for 'green infrastructure' as part of planning for 'ecological networks'.
- High quality open spaces should be protected or their loss mitigated, unless a lack of need is established.

The Natural Environment White Paper (NEWP)¹² sets out the importance of a healthy, functioning natural environment to sustained economic growth, prospering communities and personal well-being. It was in part a response to the UK's failure to halt and reverse the decline in biodiversity by 2010 and it signalled a move away from the traditional approach of protecting biodiversity in nature reserves to adopting a landscape approach to protecting and enhancing biodiversity. The NEWP also aims to create a green economy in which economic growth and the health of our natural resources sustain each other and markets, business and Government better reflect the value of nature. It includes commitments to:

- Halt biodiversity loss, support functioning ecosystems and establish coherent ecological networks by 2020;
- Establish a new voluntary approach to biodiversity offsetting to be tested in pilot areas;
- Enable partnerships of local authorities, local communities and landowners, the private sector and conservation organisations to establish new Nature Improvement Areas; and
- Address barriers to using green infrastructure to promote sustainable growth.
- Reflecting the commitments within the Natural Environment White Paper and the EU Biodiversity Strategy, 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services' aims to 'halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people'¹³.

At a local level, Policy NH/4-Biodiversity, within the emerging South Cambridgeshire Local Plan states that:

¹¹ European Commission (2011) Our life insurance, our natural capital: an EU biodiversity strategy to 2020 [online] available at: <http://ec.europa.eu/environment/nature/biodiversity/comm2006/pdf/EP_resolution_april2012.pdf> last accessed [13/06/18]

¹² Defra (2012) The Natural Choice: securing the value of nature (Natural Environment White Paper) [online] available at: <<http://www.official-documents.gov.uk/document/cm80/8082/8082.pdf>> last accessed [13/06/18]

¹³ DEFRA (2011): 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services', [online] Available to download from: <<https://www.gov.uk/government/publications/biodiversity-2020-a-strategy-for-england-s-wildlife-and-ecosystem-services>> last accessed [13/06/18]

- “Development proposals where the primary objective is to conserve or enhance biodiversity will be permitted”. And
- “New development must aim to maintain, enhance, restore or add to biodiversity. Opportunities should be taken to achieve positive gain through the form and design of development. Measures may include creating, enhancing and managing wildlife habitats and networks, and natural landscape. The built environment should be viewed as an opportunity to fully integrate biodiversity within new development through innovation. Priority for habitat creation should be given to sites which assist in the achievement of targets in the Biodiversity Action Plans (BAPs) and aid delivery of the Cambridgeshire Green Infrastructure Strategy”. And
- “If significant harm to the population or conservation status of a Protected Species, Priority Species or Priority Habitat resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission will be refused”.

Policy NH/5-Sites of Biodiversity or Geological Importance of the emerging South Cambridgeshire Local Plan states that:

- “Proposed development likely to have an adverse effect on land within or adjoining a Site of Biodiversity or Geological Importance, as shown on the Policies Map (either individually or in combination with other developments), will not normally be permitted. Exceptions will only be made where the benefits of the development demonstrably and significantly outweigh any adverse impact”.

Baseline Summary

Summary of Current Baseline

Sites of Special Scientific Interest (SSSIs)

No SSSIs are present in the Neighbourhood Plan area.

SSSI Impact Risk Zones (IRZ) are a GIS tool/dataset which maps zones around each SSSI according to the particular sensitivities of the features for which it is notified. They specify the types of development that have the potential to have adverse impacts at a given location. Natural England is a statutory consultee on development proposals that might impact on SSSIs.

The extreme north west of the parish traverses Impact Risk Zones for the Ouse Washes and Berry Fen SSSI impact risk zones relating to two types of development:

- **Rural Non-Residential:** Large non-residential developments outside existing settlements/urban areas where footprint exceeds 1ha.
- **Rural-Residential:** Any residential development of 50 or more houses outside existing settlements/urban areas.

However, given the distance of this area from the existing built up part of the Neighbourhood Plan area, the Neighbourhood Plan is unlikely to promote development in the locations covered by these Impact Risk Zones.

Locally Designated Sites

Biodiversity Action Plan habitats

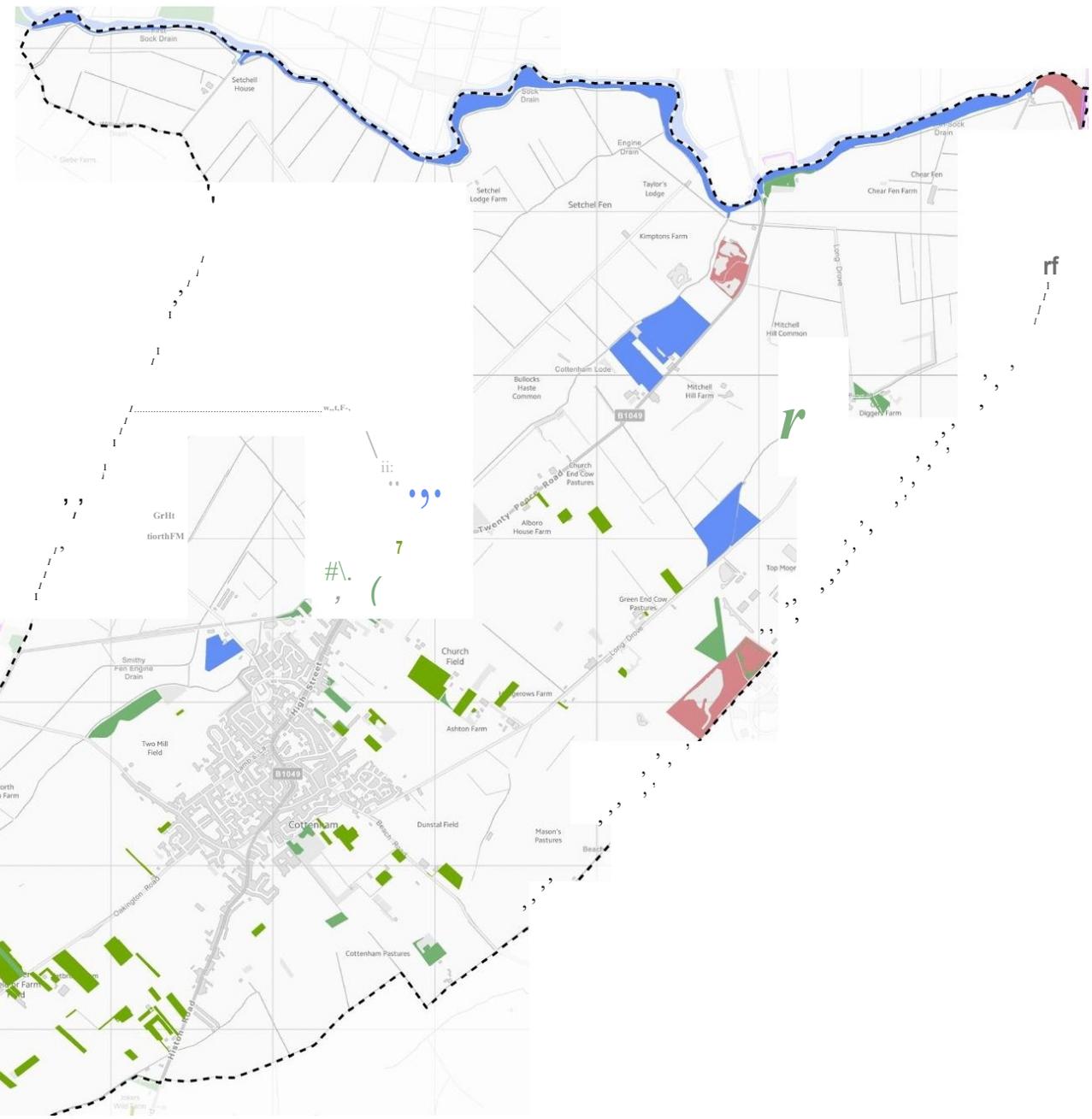
UK BAP priority habitats cover a wide range of semi-natural habitat types, and were those that were identified as being the most threatened and requiring conservation action under the UK Biodiversity Action Plan.

The Biodiversity Action Plan (BAP)¹⁴ habitats within the Neighbourhood Plan area include:

- Coastal and Floodplain Grazing Marsh: located at the northern boundary of the Neighbourhood Plan area, following the Ouse Valley Way; and in isolated patches located throughout the parish.
- Deciduous Woodland: there is a network of Deciduous Woodland located throughout the Neighbourhood Plan area.
- Traditional Orchard: found in isolated patches within the south west of the Neighbourhood Plan area.
- Lowland Fens: found within two patches located in the northern part of the Neighbourhood Plan area.

Figure 3.1 (overleaf) shows the designated biodiversity sites located within the Neighbourhood Plan area.

¹⁴ MAGIC (2017): 'Interactive Map – Habitats and Species' [online database] available to access via: <http://www.magic.gov.uk/MagicMap.aspx> last accessed [13/06/18]



LEGEND

- - - Cottenham Neighbourhood
- Plan Area

Biodiversity Action Plan Priority Habitats

- Coastal and Floodplain Grazing Marsh
- Deciduous Woodland
- Good Quality Semi-improved Grassland
- Lowland Fens
- Traditional Orchard

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COTTENHAM NEIGHBOURHOOD
PLAN STEERING GROUP

STRATEGIC ENVIRONMENTAL
ASSESSMENT OF THE
COTTENHAM
NEIGHBOURHOOD PLAN

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Summary of Future Baseline

Habitats and species will possibly face increasing pressures from future development within the Neighbourhood Plan area, with the potential for negative impacts on the wider ecological network. This may include a loss of habitats and impacts on biodiversity networks. BAP habitats are often particularly sensitive to recreational pressures. For example, the nature, scale, timing and duration of some human activities can result in the disturbance of birds at a level that may substantially affect their behaviour, and consequently affect the long-term viability of their populations.

Impacts may be exacerbated by the effects of climate change, which has the potential to lead to changes in the distribution and abundance of species and changes to the composition and character of habitats.

Benefits for biodiversity have the potential to arise from the increasing integration of biodiversity considerations within decision making, as observed in a number of policies outlined in the emerging South Cambridgeshire Local Plan. There are also significant opportunities for achieving biodiversity net gain through new development.

A.2. Climate Change

Context Review

The UK Climate Change Risk Assessment is published on a 5-yearly cycle in accordance with the requirements of the Climate Change Act 2008. It required the Government to compile an assessment of the risks for the UK arising from climate change, and then to develop an adaptation programme to address those risks and deliver resilience to climate change on the ground. For both the 2012 and the 2017 UK Climate Change Risk Assessment, the Adaptation Sub-Committee commissioned an evidence report to achieve the following:

'Based on the latest understanding of current, and future, climate risks and opportunities, vulnerability and adaptation, what should the priorities be for the next UK National Adaptation Programme?'¹⁵

The evidence report contains six priority risk areas requiring additional action in the next five years, see below:

- Flooding and coastal change risks to communities, businesses and infrastructure;
- Risks to health, well-being and productivity from high temperatures;
- Risk of shortages in the public water supply, and for agriculture, energy generation and industry;
- Risks to natural capital, including terrestrial, coastal, marine and freshwater ecosystems, soils and biodiversity;
- Risks to domestic and international food production and trade; and
- New and emerging pests and diseases, and invasive non-native species, affecting people, plants and animals

The UK Climate Change Act¹⁶ was passed in 2008 and established a framework to develop an economically credible emissions reduction path. It also highlighted the role it would take in contributing to collective action to tackle climate change under the Kyoto Protocol, and more recently as part of the UN-led Paris Agreement.

The Climate Change Act includes the following:

¹⁵ GOV.UK: 'UK Climate Change Risk Assessment Report January 2017', [online] available to download from: <<https://www.gov.uk/government/publications/uk-climate-change-risk-assessment-2017>> last accessed [14/06/18]

¹⁶ GOV.UK (2008): 'Climate Change Act 2008', [online] accessible via <<http://www.legislation.gov.uk/ukpga/2008/27/contents>> last accessed [14/06/18]

- 2050 Target. The Act commits the UK to reducing emissions by at least 80% in 2050 from 1990 levels.
- Carbon Budgets. The Act requires the Government to set legally binding 'carbon budgets'. A carbon budget is a cap on the amount of greenhouse gases emitted in the UK over a five-year period. The carbon budgets are designed to reflect the cost-effective path to achieving the UK's long-term objectives. The first five carbon budgets have been put into legislation and run up to 2032.
- The Committee on Climate Change was set up to advise the Government on emissions targets, and report to Parliament on progress made in reducing greenhouse gas emissions.
- The National Adaptation Programme requires the Government to assess the risks to the UK from climate change, prepare a strategy to address them, and encourage key organisations to do the same. For more detail, visit the UK adaptation policy page¹⁷.

Key messages from the National Planning Policy Framework (NPPF) include:

- Support the transition to a low carbon future in a changing climate as a 'core planning principle'.
- There is a key role for planning in securing radical reductions in greenhouse gas (GHG) emissions, including in terms of meeting the targets set out in the Climate Change Act 2008¹⁸. Specifically, planning policy should support the move to a low carbon future through:
 - Planning for new development in locations and ways which reduce GHG emissions;
 - Actively supporting energy efficiency improvements to existing buildings;
 - Setting local requirements for building's sustainability in a way that is consistent with the Government's zero carbon buildings policy;
 - Positively promoting renewable energy technologies and considering identifying suitable areas for their construction; and
 - Encouraging those transport solutions that support reductions in GHG emissions and reduce congestion.
- Direct development away from areas highest at risk of flooding, with development 'not to be allocated if there are reasonably available sites appropriate for the proposed development in areas with a lower probability of flooding'. Where development is necessary, it should be made safe without increasing levels of flood risk elsewhere.
- Take account of the effects of climate change in the long term, taking into account a range of factors including flooding. Adopt proactive strategies to adaptation and manage risks through adaptation measures including well planned green infrastructure.

The Flood and Water Management Act¹⁹ highlights that alternatives to traditional engineering approaches to flood risk management include:

- Incorporating greater resilience measures into the design of new buildings, and retro-fitting properties at risk (including historic buildings);
- Utilising the environment in order to reduce flooding, for example through the management of land to reduce runoff and through harnessing the ability of wetlands to store water;
- Identifying areas suitable for inundation and water storage to reduce the risk of flooding elsewhere;
- Planning to roll back development in coastal areas to avoid damage from flooding or coastal erosion; and

¹⁷ Committee on Climate Change (2017): 'UK Adaptation Policy' [online] accessible via <<https://www.theccc.org.uk/tackling-climate-change/preparing-for-climate-change/uk-adaptation-policy/>> last accessed [14/06/18]

¹⁸ The Climate Change Act 2008 sets targets for greenhouse gas (GHG) emission reductions through action in the UK of at least 80% by 2050, and reductions in CO₂ emissions of at least 26% by 2020, against a 1990 baseline.

¹⁹ Flood and Water Management Act (2010) [online] available at: <<http://www.legislation.gov.uk/ukpga/2010/29/contents>> last accessed [14/06/18]

- Creating sustainable drainage systems (SuDS)²⁰

At a local level, Policy CC/1, Mitigation and Adaption to Climate Change within the South Cambridgeshire Local Plan states that:

“Planning permission will only be granted for proposals that demonstrate and embed the principles of climate change mitigation and adaptation into the development. Applicants must submit a Sustainability Statement to demonstrate how these principles have been embedded into the development proposal.”

Policy CC/2-Renewable and Low Carbon Energy Generation states that:

- “Planning permission for proposals to generate energy from renewable and low carbon sources will be permitted provided that:
- The development, either individually or cumulatively with other developments, does not have unacceptable adverse impacts on heritage assets (including their settings), natural assets, the landscape, or the amenity of nearby residents (visual impact, noise, shadow flicker, odour, fumes, traffic);
- The development can be connected efficiently to existing national energy infrastructure or it can be demonstrated that the energy generated would be used for onsite needs only;
- Provision is made for decommissioning once the operation has ceased, including the removal of the facilities and the restoration of the site; and
- Developers have engaged effectively with the local community and local authority”.

The South Cambridgeshire Local Plan has a range of further policies relevant to this theme, these are as follows:

- Policy CC/3: Renewable and Low Carbon Energy in New Developments
- Policy CC/4: Sustainable Design and Construction
- Policy CC/5: Sustainable Show Homes
- Policy CC/6: Construction Methods
- Policy CC/7: Water Quality
- Policy CC/8: Sustainable Drainage Systems
- Policy CC/9: Managing Flood Risk

Baseline Summary

Summary of Current Baseline

Contribution to Climate Change

In relation to GHG emissions, source data from the Department of Energy and Climate Change suggests that South Cambridgeshire District has had consistently higher per capita emissions total than that of both the Cambridge and England as a whole since 2005 (see Table 4.1).

²⁰ N.B. The provision of Schedule 3 to the Flood and Water Management Act 2010 came into force on the 1st of October 2012 and makes it mandatory for any development in England or Wales to incorporate SuDs.

Table 4.1: Carbon dioxide emissions and sources, plus emissions per capita, 2005-2012²¹

	Industrial and Commercial (t CO ₂)	Domestic (t CO ₂)	Transport (t CO ₂)	Total (t CO ₂)
South Cambridgeshire				
2005	5.9	2.6	4.7	13.4
2006	5.7	2.7	4.6	13.1
2007	5.7	2.6	4.7	13.1
2008	5.3	2.5	4.4	12.4
2009	3.2	2.3	4.1	9.7
2010	3.4	2.4	4.1	10.1
2011	2.7	2.1	3.9	8.9
2012	3.1	2.3	3.9	9.5
Cambridge				
2005	3.6	2.1	1.0	6.8
2006	3.8	2.1	1.0	7.0
2007	3.7	2.1	1.1	6.9
2008	3.8	2.1	1.0	6.9
2009	3.4	1.9	1.0	6.2
2010	3.5	2.0	0.9	6.3
2011	3.2	1.7	0.9	5.8
2012	3.5	1.8	0.9	6.2
England				
2005	3.8	2.5	2.3	8.5
2006	3.7	2.5	2.2	8.5
2007	3.6	2.4	2.3	8.2
2008	3.4	2.4	2.1	7.9
2009	2.9	2.2	2.0	7.1
2010	3.0	2.3	2.0	7.3
2011	2.7	2.0	1.9	6.7
2012	2.9	2.2	1.9	7.0

Potential effects of climate change

The outcome of research on the probable effects of climate change in the UK was released in 2009 by the UK Climate Projections (UKCP09) team²². UKCP09 gives climate information for the UK up to the end of this century and projections of future changes to the climate are provided, based on simulations from climate models. Projections are broken down to a regional level across the UK and

²¹ Department of Energy and Climate Change (2011) Official statistics: Local Authority carbon dioxide emissions, UK local and regional CO₂ emissions: subset data set 2005 to 2012 (emissions within the scope of influence of local authorities) available at: <https://www.gov.uk/government/statistics/local-authority-emissions-estimates> accessed on [14/06/18]

²² The data was released on 18th June 2009: See: <http://ukclimateprojections.metoffice.gov.uk/> last accessed [14/06/2018]

are shown in probabilistic form, which illustrate the potential range of changes and the level of confidence in each prediction.

As highlighted by the research, the effects of climate change for the East by 2050 for a medium emissions scenario²³ are likely to be as follows:

- The central estimate of increase in winter mean temperature is 2.1°C and an increase in summer mean temperature of 2.7°C; and
- The central estimate of change in winter mean precipitation is 17% and summer mean precipitation is –20%.

Resulting from these changes, a range of risks may exist for the Neighbourhood Plan area. These include:

- Effects on water resources from climate change;
- Reduction in availability of groundwater for abstraction;
- Adverse effect on water quality from low stream levels and turbulent stream flow after heavy rain;
- Increased risk of flooding, including increased vulnerability to 1:100 year floods;
- A need to increase the capacity of wastewater treatment plants and sewers;
- A need to upgrade flood defences;
- Soil erosion due to flash flooding;
- Loss of species that are at the edge of their southerly distribution;
- Spread of species at the northern edge of their distribution;
- Increased demand for air-conditioning;
- Increased drought and flood related problems such as soil shrinkages and subsidence;
- Risk of road surfaces melting more frequently due to increased temperature

²³ UK Climate Projections (2009) South West 2050s Medium Emissions Scenario [online] available at: <http://ukclimateprojections.metoffice.gov.uk/23687?emission=medium> last accessed [14/06/18]

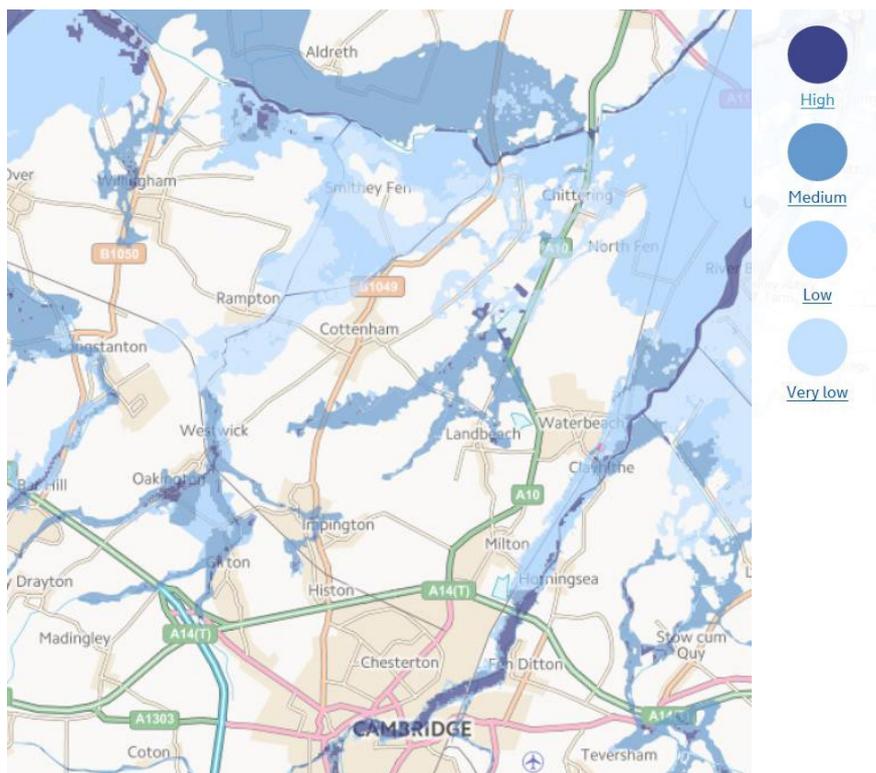


Figure 4.2: Flood Risk

A large proportion of Cottenham Neighbourhood Plan area sits at or less than 5 metres above sea level and below the water level in the two Embankment Rivers that discharge surface water into the sea.²⁴ The local drainage network stores and transports much of the surface water towards the Old West Internal Drainage Board which takes water to the Great Ouse (the Old West River). Higher ground surface water flows via open ditches into the Cottenham Lode – effectively an aqueduct, collecting surface water from the village before depositing into the Ouse. To reduce flooding, the Ouse, Load and ditches are monitored and managed by the Environment Agency to ensure the sluices and Pumping Stations within the Old West Drainage Board are effectively functioning. In emergency storm conditions, ditches combine surface water from a number of villages in the south-west into the Lode through the Parish.²⁵

The areas at highest risk of flooding in the Neighbourhood Plan area are those near the Ouse Valley which are located in Flood Zone 3b, showing that there is a 5% (1 in 20) or greater chance of flooding happening each year. Several residential properties within Cottenham lie within or in close proximity to areas in Flood Zone 3.

Summary of Future Baseline

Climate change has the potential to increase the occurrence of extreme weather events in the Cottenham Neighbourhood Plan area, with increases in mean summer and winter temperatures, increases in mean precipitation in winter and decreases in mean precipitation in summer. This is likely to increase the risks associated with climate change (including fluvial flooding) with an increased need for resilience and adaptation.

In terms of climate change contribution, per capita GhG emissions generated in the Neighbourhood Plan area may decrease with wider adoption of energy efficiency measures, renewable energy production and new technologies. However, increases in the built footprint of the Neighbourhood Plan area would contribute to increases in absolute levels of GhG emissions.

²⁴ Cottenham Neighbourhood Plan [Online] available from <<http://www.cottenham.org.uk/neighbourhood-plan/>> last accessed [15/06/18].

²⁵ Cottenham Neighbourhood Development Plan (2017) [online] available at:< <http://www.cottenham.org.uk/wp-content/uploads/2015/10/CNP2017-dPS-170508-v2.1.pdf>> last accessed [15/06/18].

A.3. Landscape and Historic Environment

Context Review

Key messages from the National Planning Policy Framework (NPPF) include:

- Protect and enhance valued landscapes, giving particular weight to those identified as being of national importance.
- Heritage assets should be recognised as an ‘irreplaceable resource’ that should be conserved in a ‘manner appropriate to their significance’, taking account of ‘the wider social, cultural, economic and environmental benefits’ of conservation, whilst also recognising the positive contribution new development can make to local character and distinctiveness.
- Set out a ‘positive strategy’ for the ‘conservation and enjoyment of the historic environment’, including those heritage assets that are most at risk.
- Develop ‘robust and comprehensive policies that set out the quality of development that will be expected for the area. Such policies should be based on stated objectives for the future of the area and an understanding and evaluation of its defining characteristics’.
- Consider the effects of climate change in the long term, including in terms of landscape. Adopt ‘proactive strategies’ to adaptation and manage risks through adaptation measures including well planned green infrastructure.

The Government’s Statement on the Historic Environment for England²⁶ sets out its vision for the historic environment. It calls for those who have the power to shape the historic environment to recognise its value and to manage it in an intelligent manner in light of the contribution that it can make to social, economic and cultural life.

Policy F1 of the Listed Building and Conservation Areas Act 1990 states: ‘Subject to the following provisions of this Act, no person shall execute or cause to be executed any works for the demolition of a listed building or for its alteration or extension in any manner which would affect its character as a building of special architectural or historic interest, unless the works are authorised’.

At a local level Policy NH/2-Protecting and Enhancing Landscape Character of the emerging South Cambridgeshire Local Plan states:

“Development will only be permitted where it respects and retains, or enhances the local character and distinctiveness of the local landscape and of the individual National Character Area in which is it located”.

The Local Plan further addresses landscape in the following policies:

- Policy NH/6: Green Infrastructure: “The Council will aim to conserve and enhance green infrastructure within the district. Proposals that cause loss or harm to this network will not be permitted unless the need for and benefits of the development demonstrably and substantially outweigh any adverse impacts on the district’s green infrastructure network”.
- Policy NH/7: Ancient Woodlands and Veteran Trees: “Planning permission will be refused for development resulting in the loss or deterioration of ancient woodland (as shown on the Policies Map) or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss”. and
- “Development proposals affecting ancient woodland or veteran trees will be expected to mitigate any adverse impacts and to contribute to the woodland’s or veteran tree’s management and further enhancement via planning conditions or planning obligations”.
- Policy NH/8: Mitigating the Impact of Development In and Adjoining the Green Belt: “Any development considered appropriate within the Green Belt, or proposals outside but in the

²⁶ HM Government (2010) The Government’s Statement on the Historic Environment for England [online] available at: <http://webarchive.nationalarchives.gov.uk/+/http://www.culture.gov.uk/reference_library/publications/6763.aspx> last accessed [16/06/18].

- vicinity of the Green Belt, must be located and designed so that it does not have an adverse effect on the rural character and openness of the Green Belt”.
- Policy NH/9: Redevelopment of Previously Developed Sites and Infilling in the Green Belt: “The Council will seek to ensure that redevelopment will be limited to that which would not result in:
 - A greater footprint unless there are significant environmental improvements;
 - The existing height of the built development being exceeded;
 - There being a greater impact than the existing development on the openness of the Green Belt”.
 - Policy NH/11: Protected Village Amenity Areas: “Protected Village Amenity Areas are identified on the Policies Map where development will not be permitted within or adjacent to these areas if it would have an adverse impact on the character, amenity, tranquility or function of the village”.
 - Policy NH/12: Local Green Space: “Local Green Space identified on the Policies Map will be protected from development that would adversely impact on the character and particular local significance placed on such green areas which make them valued by their local community. Only in exceptional circumstances and in discussion with the local community would development be permitted”.
 - Policy NH/13: Important Countryside Frontage: “Important Countryside Frontages are defined where land with a strong countryside character either:
 - Penetrates or sweeps into the built-up area providing a significant connection between the street scene and the surrounding rural area; or
 - Provides an important rural break between two nearby but detached parts of a development framework”.

Baseline Summary

Summary of Current Baseline

Landscape

National Character Areas (NCA)

NCA are landscape areas which share similar characteristics, following natural lines in the landscape rather than administrative boundaries. Developed by Natural England, NCA profiles describe the natural and cultural features that shape each of these landscapes, providing a broad context to its character. The Neighbourhood Plan area is located within NCA Profile 88 Bedfordshire and Cambridge Claylands. This covers the southern part of the parish, including the village. The lower lying land in the north is located within NCA 46: The Fens²⁷.

NCA 88 is described as a broad, gently undulating, lowland plateau dissected by shallow river valleys that gradually widen as they approach The Fens NCA in the east. The majority of the landscape consists of arable and commercially farmed areas and a wide diversity of semi-natural habitats. The key characteristics of NCA 88 are as follows:

- Predominantly open, arable landscape of planned and regular fields bounded by open ditches and trimmed, often species-poor hedgerows which contrast with those fields that are irregular and Piecemeal
- Diversity of building materials including brick, render, thatch and stone;
- Smaller towns, villages and linear settlements widely dispersed, giving a rural feel; fen edge villages are often in a linear form along roads.

²⁷ Natural England (2014) National Character Area – Bedfordshire and Cambridge Claylands; the Fens. [Online] Available at: <http://publications.naturalengland.org.uk/publication/1911063?category=587130>

NCA 46 is described as a distinctive, historic and human-influenced wetland landscape with extensive vistas to level horizons. Expansive, flat, open, low-lying wetland landscape offering extensive vistas to level horizons and huge skies, providing a sense of rural remoteness and tranquillity. The key characteristics of NCA 46 are as follows:

- Woodland cover is sparse;
- The predominant land use is arable;
- Open fields, bounded by a network of drains and the distinctive hierarchy of rivers (some embanked), have a strong influence on the geometric/rectilinear landscape pattern; and
- Domestic architecture mostly dates from after 1750 and comprises a mix of late Georgian-style brick houses and 20th century bungalows.

Villagescape

The Cottenham Village Design Statement²⁸ provides an overview of Cottenham's villagescape, as follows:

"Cottenham, built on a fertile ridge of Lower Greensand, Jurassic clay and gravel belts rising above the 5m contour, is in essence a linear village with no single centre or focal point.

The imposing High Street is one of the longest in the country, with All Saints Church and the Village Green more than a mile apart. The size of the village and continuing dominance of its settlement patterns are clear evidence of a rich and successful agricultural past. The settlement is based on two distinct historical patterns. The 'Lanes' (TelegraphRooks-Corbett-Margett Streets), with an irregular pattern of short rectangular plots at the centre of the village, formed the original Saxon nucleus. This is the most densely settled, enclosed and informal area of the village.

Medieval linear expansion to the north and south formed the dog-leg High Street. Here the pattern is more open and regular, with long plots of up to 300m backing on to the open countryside. Farmhouses are concentrated within the village and line the street: there is little space at the front of plots, with access to hard standing and yards traditionally to the side and behind. Outbuildings run along the edge of plots, many of which follow the early farmstead boundaries. These patterns have remained largely undisturbed, later settlement keeping to the line of the High Street in the form of extended ribbon development and continuing infill to the north and south.

Gaps remain in the line of houses and these allow important glimpses out of the village, making a vital visual connection with the open countryside. Individual late 19th century and 20th century houses are strung out along Lambs Lane, Rampton Road and Histon Road, with post-war estate developments sited on orchards and agricultural land within the village. During the later part of the 20th century several mobile home parks have become established, at Cottenham Park, Appletree Close and Smithy Fen. Most of these are static homes."

Historic Environment

Historic England is the statutory consultee for certain categories of listed building consent and all applications for scheduled monument consent. The historic environment is protected through the planning system, via conditions imposed on developers and other mechanisms. The Neighbourhood Plan area contains one scheduled monument, one Grade I listed building, 65 Grade II listed buildings; and a conservation area.

Scheduled Monument

Scheduled monuments are sites of national importance and protected by the Ancient Monuments and Archaeological Areas Act 1979. The recorded Scheduled Monument in Cottenham comprises of a medieval moated enclosure associated with the Crowland Abbey in Lincolnshire dating back to the 1200's.

²⁸ Cottenham Village Design Group (2007) Cottenham Village Design Statement Supplementary Planning Document . [Online] Available at: <https://www.scamb.gov.uk/sites/default/files/documents/Adopted%20Cottenham%20VDS%20SPD.pdf>

Listed Buildings

All Saints Church is Grade I listed, deemed to be of exceptional interest; originally built in the 13th century but rebuilt and modified during the 15th and 16th century.

The 65 Grade II listed buildings within the Neighbourhood Plan area date back to the 19th century and earlier. Examples include thatched timber framed cottages, rendered brick facades, 17th century white faced cottages²⁹.

The NPPF states that “when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional”³⁰.

Conservation Area

Conservation areas are designated because of their special architectural and historic interest³¹. Conservation area appraisals are a tool to demonstrate the area’s special interest, explaining the reasons for designation and providing a greater understanding and articulation of its character - mentioned within the ‘Conservation Area Designation, Appraisal and Management’ advice note by Historic England³². Ideally, appraisals should be regularly reviewed as part of the management of the Conservation Area, and can be developed into a management plan. The Neighbourhood Plan area contains one conservation area, designated in recognition of special architectural and historic interest whose appearance or character is to be enhanced or preserved. The Cottenham Conservation Area was implemented to preserve the historic fabric of the area, dating back to the medieval period. All listed buildings within the Neighbourhood Plan area are located within the conservation area.

A Conservation Area Appraisal or Management Plan has not been recently prepared for the Cottenham Conservation Area. However a Heritage and Character Assessment has recently been undertaken to support the development of the Neighbourhood Plan. This can be accessed at:<http://www.cottenhampc.org.uk/wp-content/uploads/2015/10/AECOM-Cottenham-NP-Heritage-Assessment-Report.pdf>

It should be noted that not all of the area’s historic environment features are subject to statutory designations, and non-designated features comprise a large part of what people have contact with as part of daily life – whether at home, work or leisure. Although not designated, many buildings and areas are of historic interest and are seen as important by local communities. For example, open spaces and key distinctive buildings in the area are likely to be of value for local people.

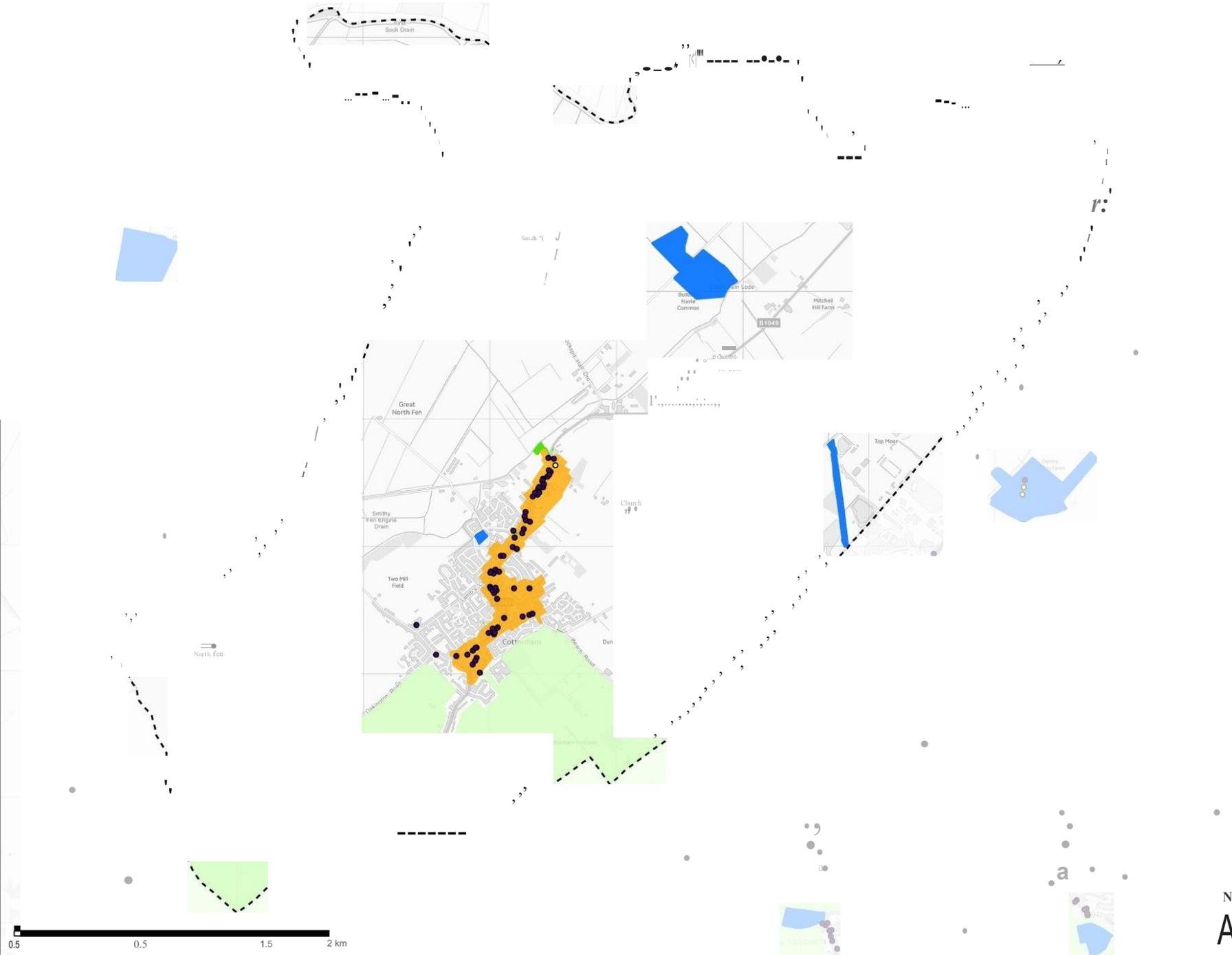
Figure 5.1 (overleaf) shows the designated landscapes and historical sites located within the Neighbourhood Plan area.

²⁹ Cottenham Heritage Report (2017) [online] available at <<http://www.cottenhampc.org.uk/wp-content/uploads/2015/10/AECOM-Cottenham-NP-Heritage-Assessment-Report.pdf>>

³⁰ NPPF (2012): [Online] available at: <https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/60777/2116950.pdf>

³¹ Historic England (2017): ‘Conservation Areas’, [online] available to access via: <<https://historicengland.org.uk/listing/what-is-designation/local/conservation-areas/>> last accessed [15/06/18]

³² Historic England (2016): ‘Conservation Area Designation, Appraisal and Management Advice Note 1’, [online] available to download from: <<https://www.historicengland.org.uk/images-books/publications/conservation-area-designation-appraisal-management-advice-note-1/>> last accessed [15/06/18]



THIS DRAWING IS TO BE VIEWED IN THE CONTEXT OF THE PROJECT AND IS NOT TO BE USED FOR ANY OTHER PURPOSE WITHOUT THE PERMISSION OF THE PROJECT MANAGER.

LEGEND

- Cottenham Neighbourhood Plan Area
- Listed building
 - o Grade I
 - Grade II*
 - Grade II
- Green Belt
- Record of Scheduled Monuments
- Conservation Area
- Tree Preservation Orders

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DRAFT

COTTENHAM NEIGHBOURHOOD PLAN STEERING GROUP

STRATEGIC ENVIRONMENTAL ASSESSMENT OF THE COTTENHAM NEIGHBOURHOOD PLAN

HISTORIC ENVIRONMENT AND LANDSCAPE DESIGNATIONS

Project No	60538603	Revision	1:28000
Date	03/05/2018	Author	AV

A:COM

FIGURE 5.1 01

Green Belt

Whilst not specifically a landscape or historic environment designation, the southern part of the Neighbourhood Plan area is covered by the Cambridge Green Belt. The aim of the Green Belt policy is to prevent urban sprawl by keeping land permanently open. In this context it plays an important role in ensuring Cottenham remains separate from Histon and other surrounding settlements including Oakington and Northstowe (see Figure 5.2).



Source: South Cambridgeshire District Council, adapted by AECOM

Figure 5.2: Green Belt designation (in green)

Summary of Future Baseline

New development areas in the Neighbourhood Plan area have the potential to impact on the fabric and setting of cultural heritage assets; for example through inappropriate design and layout. It should be noted, however, that existing historic environment designations offer a degree of protection to cultural heritage assets and their settings.

New development has the potential to lead to incremental but small changes in landscape and villagescape character and quality in and around the Neighbourhood Plan area. This includes from the loss of landscape features and visual impact. However, new development need not be harmful to the significance of a heritage asset, and in the context of the Neighbourhood Plan area there is opportunity for new development to enhance the historic setting of the village and better reveal assets' cultural heritage significance.

A.4. Land, Soil and Water Resources

Context Review

The EU's Soil Thematic Strategy³³ presents a strategy for protecting soils resources in Europe. The main aim of the strategy is to minimise soil degradation and limit associated detrimental effects linked to water quality and quantity, human health, climate change, biodiversity, and food safety.

³³ European Commission (2006) Soil Thematic Policy [online] available at: <http://ec.europa.eu/environment/soil/index_en.htm> last accessed [28/05/2018]

The EU Water Framework Directive (WFD) drives a catchment-based approach to water management. In England and Wales there are 100 water catchments and it is Defra's intention is to establish a 'framework for integrated catchment management' across England. The Environment Agency is establishing 'Significant Water Management Issues' and recently presented second River Basin Management Plans to ministers. The plans seek to deliver the objectives of the WFD namely:

- Enhance the status and prevent the further deterioration of aquatic ecosystems and associated wetlands which depend on aquatic ecosystems;
- Promote the sustainable use of water;
- Reduce the pollution of water, especially by 'priority' and 'priority hazardous' substances; and
- Ensure the progressive reduction of groundwater pollution.

Key messages from the National Planning Policy Framework (NPPF) include:

- Protect and enhance soils. The value of best and most versatile agricultural land should also be taken into account.
- Prevent new or existing development from being 'adversely affected' by the presence of 'unacceptable levels' of soil pollution or land instability and be willing to remediate and mitigate 'despoiled, degraded, derelict, contaminated and unstable land, where appropriate'.
- Encourage the effective use of land' through the reuse of land which has been previously developed, 'provided that this is not of high environmental value'. Whilst there is no longer a national requirement to build at a minimum density, the NPPF requires local planning authorities to 'set out their own approach to housing density to reflect local circumstances'.
- Produce strategic policies to deliver the provision of a variety of infrastructure, including that necessary for water supply.
- With regards to waste, the NPPF does not contain any specific waste policies as waste planning policy will be published as part of the National Waste Management Plan.

Other key documents at the national level include Safeguarding our Soils: A Strategy for England³⁴, which sets out a vision for soil use in England, and the Water White Paper³⁵, which sets out the Government's vision for a more resilient water sector. It states the measures that will be taken to tackle issues such as poorly performing ecosystems, and the combined impacts of climate change and population growth on stressed water resources. In terms of waste management, the Government Review of Waste Policy in England³⁶ recognises that environmental benefits and economic growth can be the result of a more sustainable approach to the use of materials.

6.4 At a local level, the emerging South Cambridgeshire Local Plan has a number of policies of relevance, these are:

- Policy H/3: Protecting Agricultural Land.
- Policy SC/12: Contaminated Land.
- Policy CC/9, Managing Flood Risk.

³⁴ Defra (2009) Safeguarding our Soils: A strategy for England [online] available to download from: <<https://www.gov.uk/government/publications/safeguarding-our-soils-a-strategy-for-england>> last accessed [28/05/18]

³⁵ Defra (2011) Water for life (The Water White Paper) [online] available at <<http://www.official-documents.gov.uk/document/cm82/8230/8230.pdf>> last accessed [28/05/18]

³⁶ Defra (2011) Government Review of Waste Policy in England [online] available at: <<http://www.defra.gov.uk/publications/files/pb13540-waste-policy-review110614.pdf>> last accessed [28/05/18]

Baseline Summary

Summary of Current Baseline

Land Quality

The BGS geological map of the area shows no evidence of extensive coal or mineral mining activities within the Neighbourhood Plan boundary. Low potential for localised soil or groundwater contamination exists.

Quality of Agricultural Land

The Agricultural Land Classification categorises land into six grades (plus 'non-agricultural' and 'urban'), where Grades 1 to 3a are recognised as being the 'best and most versatile' land and Grades 3b to 5 are of poorer quality. In terms of the location of the best and most versatile agricultural land, a detailed classification has been carried out in some locations³⁷ however this does not include the Neighbourhood Plan area, and recent agricultural land classification has not been undertaken in the parish.

The earlier 1:250,000 series of agricultural landscape classification (ALC) maps produced by Natural England show that the entirety of the Neighbourhood Plan area is classified as Grade 2 or Grade 3 agricultural land. As such the parish contains land classified as the best and most versatile agricultural land.

Watercourses

The Cottenham Lode flows along the north west of central Cottenham within the Old West Internal Drainage Board Area and supplies the River Cam³⁸.

The Neighbourhood Plan area sits within the Cam and Ely Ouse catchment. The catchment comprises of the Great Ouse River, draining approximately 3,600 square km³⁹. The Great Ouse is supplied by four main tributaries: the River Cam; the River Lark; the Little Ouse and the River Wissey. The catchment is characterised by the South level Fens towards the west, East Anglian Chalklands to the south and Brecklands in the north. The catchment supports nationally and internationally important fluvial sites of exceptional value.

Groundwater Source Protection Zones (SPZs) have been defined by the Environment Agency in England and Wales to protect groundwater sources such as wells, boreholes and springs that are used for public drinking water supply. The zones show the risk of contamination from activities that might cause groundwater pollution in the area. As of September 2017, there are no SPZs within the Neighbourhood Plan area.

The Nitrates Directive (91/676/EEC) requires Member States to identify areas where groundwater has nitrate concentrations of more than 50 mg/l nitrate or is thought to be at risk of nitrate contamination. Areas associated with such groundwater are designated as Nitrate Vulnerable Zones (NVZs), and as such, they are recognised as being at risk from agricultural nitrate pollution. Member States are required to establish Action Programmes in order to reduce and prevent further nitrate contamination. NVZs for 2017-2020 started on January 1st 2017⁴⁰, including new areas of NVZs and excluding areas that have been de-designated. As of September 2017, there are no NVZs within the Neighbourhood Plan area.

³⁷ MAGIC Interactive Map (2017): 'Landscape; Post 1988 Agricultural Land Classification (England)' [online] layer available to view using the following mapping tool: <<http://www.magic.gov.uk/MagicMap.aspx>> last accessed [28/05/18]

³⁸South Cambridgeshire District Council SFRA Appendix [online]
<https://www.cambridge.gov.uk/sites/default/files/docs/SFRA_Appendix_B-1-2.pdf> last accessed [24/06/2018]

³⁹ Environment Agency Catchment Data [Online] available at:<<http://environment.data.gov.uk/catchment-planning/ManagementCatchment/3009/Summary>>[last accessed 28/05/18].

⁴⁰ GOV.UK (2017): 'Nutrient Management: Nitrate Vulnerable Zones' [online] available to access via:
<<https://www.gov.uk/guidance/nutrient-management-nitrate-vulnerable-zones>> last accessed [24/06/17]

Summary of Future Baseline

Due to increasing legislative and regulatory requirements, there are increasing pressures to improve recycling and composting rates.

In terms of water quality, the requirements of the Water Framework Directive (and its replacement) are likely to lead to continued improvements to water quality in watercourses in the wider area. Water quality has the potential to be affected by pollution incidents in the area, the presence of non-native species and future physical modifications to water bodies.

A.5. Population and Community

Context Review

Key messages from the National Planning Policy Framework (NPPF) include:

- To ‘boost significantly the supply of housing’, local planning authorities should meet the ‘full, objectively assessed need for market and affordable housing’ in their area. They should prepare a Strategic Housing Market Assessment to assess their full housing needs, working with neighbouring authorities where housing market areas cross administrative boundaries. The Strategic Housing Market Assessment should identify the scale and mix of housing and the range of tenures that the local population is likely to need over the plan period.
- With a view to creating ‘sustainable, inclusive and mixed communities’ authorities should ensure provision of affordable housing onsite or externally where robustly justified.
- In rural areas, when exercising the duty to cooperate with neighbouring authorities, local planning authorities should be responsive to local circumstances and plan housing development to reflect local needs, particularly for affordable housing, including through rural exception sites where appropriate. Authorities should consider whether allowing some market housing would facilitate the provision of affordable housing to meet local needs.
- The NPPF attaches great importance to the design of the built environment. It explains how good design is a key aspect in sustainable development, and how development should improve the quality of the area over its lifetime, not just in the short term. Good architecture and landscaping are important, with the use of design codes contributing to the delivery of high quality outcomes. Design should reinforce local distinctiveness, raise the standard more generally in the area and address the connections between people and places.
- The social role of the planning system involves ‘supporting vibrant and healthy communities’.
- The planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities
- Promote the retention and development of local services and community facilities such as local shops, meeting places, sports venues, cultural buildings, public houses and places of worship.
- Ensure that developments create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion. Places should contain clear and legible pedestrian routes, and high quality public spaces, which encourage the active and continual use of public areas.
- Ensuring that there is a ‘sufficient choice of school places’ is of ‘great importance’ and there is a need to take a ‘proactive, positive and collaborative approach’ to bringing forward ‘development that will widen choice in education’.

The ‘Ready for Ageing?’ report, published by the Select Committee on Public Service and Demographic Change⁴¹ warns that society is underprepared for an ageing population. The report states that ‘longer lives can be a great benefit, but there has been a collective failure to address the implications and without urgent action this great boon could turn into a series of miserable crises’. The report recognises that the supply of specialist housing for the older generation is insufficient for the demand. There is a need for central and local Government, housing associations, and house builders to ensure that these housing needs are better addressed, giving as much priority to promoting an adequate market of social housing for the older generation as is given to the younger generation.

The South Cambridgeshire Local Plan has a range of policies which are related to the Population and Community theme. These are as follows:

- Policy SC/1: Allocation for Open Space
- Policy SC/2: Health Impact Assessment
- Policy SC/3: Protection of Village Services and Facilities
- Policy SC/4: Meeting Community Needs
- Policy SC/5: Hospice Provision
- Policy SC/6: Indoor Community Facilities
- Policy SC/7: Outdoor Play Space, Informal Open Space and New Developments
- Policy SC/8: Open Space Standards

Baseline Summary

Summary of Current Baseline

Population

Table 7.1: Population growth 2001-2011⁴²

Date	Cottenham	South Cambridgeshire	East	England
2001	7389	130108	5388140	49138831
2011	6095	148755	5846965	53012456
Population Change	-17.51%	+14.33%	+8.52%	+7.88%

2001-2011

As shown in Table 7.1, the population of Cottenham decreased between 2001 and 2011. This is in contrast to the population of South Cambridgeshire, the East of England, and England, all of which increased in the same period. However, significant development since 2011 has led to recent increases in the size of the Neighbourhood Plan area’s population. Based on the 2011 census data, approximately 4.1% of the population of South Cambridgeshire live within the Neighbourhood Plan area.

Age Structure

Table 7.2: Age Structure (2011)⁴³

⁴¹ Select Committee on Public Service and Demographic Change (2013) Ready for Ageing? [online] available at: <<http://www.parliament.uk/business/committees/committees-a-z/lords-select/public-services-committee/report-ready-for-ageing/>> last accessed [24/06/2018].

⁴² ONS (no date): Census 2011: Population Density 2011 (Table QS102EW); Population Density 2001 (Table UV02)

⁴³ ONS (no date): Census 2011: Age Structure 2011 (Table KS102EW)

	Cottenham	South Cambridgeshire	East	England
0-15	20.0%	19.8%	18.96%	18.90%
16-24	8.5%	9.3%	10.92%	11.90%
25-44	27.1%	26.9%	26.45%	27.50%
45-59	20.0%	20.8%	19.78%	19.40%
60+	24.5%	23.2%	23.89%	22.30%
Total Population	6095	148755	5846965	53,012,456

There are a larger number of residents within the 60+ age category within the Neighbourhood Plan area (24.5%) in comparison to the percentages for the East (23.2%) and England (22.3%), as shown in Table 7.2. However, the values for the Neighbourhood Plan area broadly align with the value for South Cambridgeshire (23.2%). Residents within the working age categories (25-44 and 45-59) in the Neighbourhood Plan Area (47.1%) reflect the national values for England (46.9%) and South Cambridgeshire (47.7%).

Additionally, there are marginally fewer younger residents (0-15 and 16-24) in the Neighbourhood Plan area (28.5%) compared with the totals for South Cambridgeshire (29.1%), the East of England (29.8%) and England (30.8%).

Household Deprivation

Census statistics measure deprivation across four 'dimensions' of deprivation, summarized below:

- **Employment:** Any person in the household (not a full-time student) that is either unemployed or long-term sick.
- **Education:** No person in the household has at least a level 2 qualification and no person aged 16-18 is a full-time student.
- **Health and Disability:** Any person in the household that has generally 'bad' or 'very bad' health, or has a long term health problem.
- **Housing:** The household accommodation is either overcrowded (with an occupancy rating of -1 or less), in a shared dwelling or has no central heating.

Index of Multiple Deprivation

The Index of Multiple Deprivation 2015 (IMD) is an overall relative measure of deprivation constructed by combining seven domains of deprivation according to their respective weights, as described below. The seven deprivation domains are as follows:

- **Income:** The proportion of the population experiencing deprivation relating to low income, including those individuals that are out-of-work and those that are in work but who have low earnings (satisfying the respective means tests).
- **Employment:** The proportion of the working-age population in an area involuntarily excluded from the labour market, including those individuals who would like to work but are unable to do so due to unemployment, sickness or disability, or caring responsibilities.
- **Education, Skills and Training:** The lack of attainment and skills in the local population.
- **Health Deprivation and Disability:** The risk of premature death and the impairment of quality of life through poor physical or mental health. Morbidity, disability and premature mortality are also considered, excluding the aspects of behaviour or environment that may be predictive of future health deprivation.

- **Crime:** The risk of personal and material victimisation at local level.
- **Barriers to Housing and Services:** The physical and financial accessibility of housing and local services, with indicators categorised in two sub-domains.
 - 'Geographical Barriers': relating to the physical proximity of local services
 - 'Wider Barriers': relating to access to housing, such as affordability.
- **Living Environment:** The quality of the local environment, with indicators falling categorised in two sub-domains.
 - 'Indoors Living Environment' measures the quality of housing.
 - 'Outdoors Living Environment' measures air quality and road traffic accidents.

Two supplementary indices (subsets of the Income deprivation domains), are also included:

- **Income Deprivation Affecting Children Index:** The proportion of all children aged 0 to 15 living in income deprived families.
- **Income Deprivation Affecting Older People Index:** The proportion of all those aged 60 or over who experience income deprivation.

Lower Super Output Areas (LSOAs) are a geographic hierarchy designed to improve the reporting of small area statistics in England and Wales. They are standardized geographies designed to be as consistent in population as possible, with each LSOA containing approximately 1,000 to 1,500 people. In relation to the IMD 2015, LSOAs are ranked out of the 32,844 in England and Wales, with 1 being the most deprived. Ranks are normalized into deciles, with a value of 1 reflecting the top 10% most deprived LSOAs in England and Wales

The Economic Activity data from Cottenham (see Table 7.4) can be supplemented with more recent, granular data, provided by Cambridgeshire Insight, on the Index of Multiple Deprivation 2015 scores for individual LSOAs within Cottenham, as shown in the Figure 7.1 below. This data highlights (as denoted by the red bars at the bottom of the figure) the range of levels of economic deprivation within parish boundaries, with most of the LSOAs falling towards the least deprived end of the least deprived quintile across the distribution for Cambridgeshire, but one LSOA, covering much of the north of Cottenham, falling towards the more deprived end of the second least deprived deprivation quintile. Even so, the evidence suggests that Cottenham can still be considered less deprived than the majority of areas in Cambridgeshire.

Economic category		Cottenham	South Cambridgeshire	England
Economically active	Total	76.5%	76.2%	69.9%
	Employee: Full-time	44.9%	45.0%	13.7%
	Employee: Part-time	15.5%	14.5%	38.6%
	Self-employed	11.7%	11.6%	9.8%
Unemployed	Unemployed	1.6%	2.3%	4.4%
	Full-time student	2.7%	2.8%	3.4%
Economically inactive	Total	23.5%	23.8%	30.1%
	Retired	13.6%	13.0%	13.7%
	Student	3.7%	4.0%	5.8%
	Looking after home or family	3.6%	3.6%	4.4%
	Long-term sick or disabled	1.6%	2.0%	4.1%
	Other	1.0%	1.3%	2.2%

Table 7.4: Economic Activity in Cottenham, 2011

Source: ONS Census 2011, AECOM Calculations

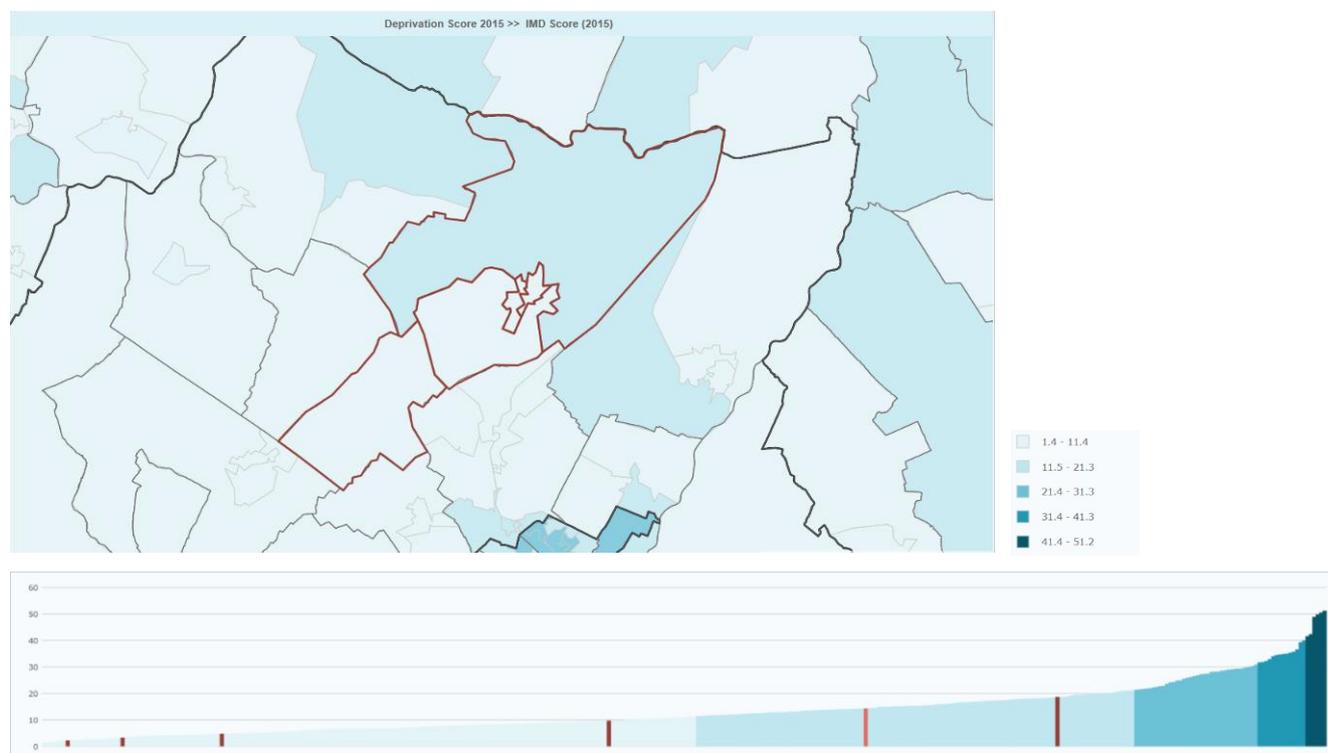


Figure 7.1: Index of Multiple Deprivation 2015⁴⁴

⁴⁴ DCLG (2015): 'English Indices of Deprivation', [online] available to download from: <https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015> last accessed [24/06/18].

South Cambridgeshire is projected to see the greatest increase in jobs in the wider economic area, totalling 27%. Such employment growth close to Cottenham will inevitably bring with it demand for housing in future, and given that 48% of those in Cottenham work less than 10km from home (see Table 7.5), it is likely that housing need will continue to need to be met in relatively close proximity to employment sites.

Table 7.5: Distance to work, 2011

Location of work	Cottenham	South Cambridgeshire	England
Less than 10km	47.9%	41.9%	52.3%
10km to less than 30km	25.1%	27.4%	21.0%
30km and over	6.9%	10.4%	8.0%
Work mainly at or from home	13.0%	13.2%	10.3%
Other	7.1%	7.1%	8.5%
Average distance travelled to work	15.2km	17.4km	14.9km

Source: Census 2011, AECOM Calculations

Due to its proximity to Cambridge, residents in Cottenham travel on average smaller distances to work than those in South Cambridgeshire as a whole, as shown in the table above. Cottenham is 8.4 miles by car, and 45 minutes by bus from Cambridge city centre, and thus is also likely to benefit from jobs growth in the city.

Housing Tenure

Within the Neighbourhood Plan area, 73.8% of residents either own their home outright or with a mortgage, compared to 70.3% for South Cambridgeshire, 67.6% for the East and 63.3% for England. There are also fewer residents within socially rented accommodation in the Neighbourhood Plan area (12.1%) in comparison to the regional (15.7%) and national totals (17.7%). However, the percentage for Cottenham broadly aligns with the percentage for South Cambridgeshire (14.3%).

Education

Based on the 2011 census data, 20.6% of residents in the Neighbourhood Plan area have no qualifications, lower than the percentages for South Cambridgeshire (21.1%), the East (22.5%), but aligning with the national total (20.7%).

Conversely, there are a fewer number of residents with Level 4 qualifications within the Neighbourhood Plan area (24.7%), compared with the totals for South Cambridgeshire (27.2%), the East (25.7%) and England (27.4%). The number of residents in the Neighbourhood Plan area with either a Level 1 or Level 3 qualification broadly aligns with the regional and national trends.

Employment

In regards to employment within the Neighbourhood Plan area, the following three occupation categories support the most residents:

- Professional Occupations (27.8%);
- Associate, professional and technical occupations (12.6%); and
- Managers, directors, senior officials (12.4%).

Overall, 52.8% of residents within the Neighbourhood Plan area are employed in one of the above three occupation categories, compared with 52.3% for South Cambridgeshire, 41.0% in the East and 41.2% in England.

Generally, there are fewer residents within the Neighbourhood Plan area employed within the process plant/machine operatives, the sales and customer service occupation categories and the

administrative and secretarial occupations categories compared to the regional and national percentages shown in Figure 7.4.

Summary of Future Baseline

The population of the Neighbourhood Plan area reduced between the years 2001-2011, in contrast to the increases observed in South Cambridgeshire, the East of England, and England. However, given recent housing growth and planning approvals, the population of the parish has the potential to rise significantly in forthcoming years.

24.5% of residents are aged 60+, indicating the presence of an older population within the Neighbourhood Plan area. In common with other areas therefore, the population of the Neighbourhood Plan area is ageing.

A.6. Health and Wellbeing

Context Review

Key messages from the NPPF include:

- The social role of the planning system involves ‘supporting vibrant and healthy communities’.
- A core planning principle is to ‘take account of and support local strategies to improve health, social and cultural wellbeing for all’.
- The planning system can play an important role in facilitating social interaction and creating healthy, inclusive communities’
- Promote the retention and development of local services and community facilities such as local shops, meeting places, sports venues, cultural buildings, public houses and places of worship.
- Set out the strategic policies to deliver the provision of health facilities.
- Access to high quality open spaces and opportunities for sport and recreation can make an important contribution to the health and well-being of communities.

In relation to other key national messages in relation to health, Fair Society, Healthy Lives⁴⁵ (‘The Marmot Review’) investigated health inequalities in England and the actions needed in order to tackle them. Subsequently, a supplementary report was prepared providing additional evidence relating to spatial planning and health on the basis that there is: “overwhelming evidence that health and environmental inequalities are inexorably linked and that poor environments contribute significantly to poor health and health inequalities”.

The increasing role that local level authorities are expected to play in providing health outcomes is demonstrated by recent government legislation. The Health and Social Care Act 2012 transferred responsibility for public health from the NHS to local government, giving local authorities a duty to improve the health of the people who live in their areas. This will require a more holistic approach to health across all local government functions.

At a local level, Policy SC/2-Health Impact Assessment within the South Cambridgeshire Local Plan states that:

- “New development will have a positive impact on the health and wellbeing of new and existing residents. Planning applications for developments of 20 or more dwellings or 1,000 m² or more floor-space will be accompanied by a Health Impact Assessment to demonstrate this.

⁴⁵ The Marmot Review (2011) The Marmot Review: Implications for Spatial Planning [online] available to download from: <http://www.apho.org.uk/resource/item.aspx?RID=106106> last accessed [24/06/18]

- For developments of 100 or more dwellings or 5,000 m² or more floor-space a full Health Impact Assessment will be required;
- For developments between 20 to 100 dwellings or 1,000 to 5,000 m² or more floorspace the Health Impact Assessment will take the form of an extended screening or rapid Health Impact Assessment”.

Baseline Summary

Summary of Current Baseline

Health Indicators and Deprivation

Deprivation is a significant contributor to poor health and can have adverse effects on wellbeing, with elements related to poor housing quality, living environment, income and employment previously discussed in detail in Chapter 7. 84.6% of residents in the Neighbourhood Plan area consider themselves as having ‘very good health’ or ‘good health’, higher than the totals for the East (82.4%) and England (81.4%) but marginally lower than totals in South Cambridgeshire (86.2%). The number of residents in the Neighbourhood Plan area considering themselves to have ‘bad health’ or ‘very bad health’ is 3.8%, compared with 3.2% in South Cambridgeshire, 4.6% in the East and 5.4% in England.

Table 8.1: Disability⁴⁶

	Cottenham	South Cambridgeshire	East	England
Activities limited ‘a lot’	6.4%	5.6%	7.43%	8.30%
Activities limited ‘a little’	9.6%	8.4%	9.28%	9.30%
Activities ‘not limited’	84.0%	86.1%	83.30%	82.40%

The higher percentage of ‘very good health’ and ‘good health’ within the Neighbourhood Plan area observed in Figure 8.1 compared to the East and England also aligns with the disability data presented in Table 8.1. 84.0% of residents in Cottenham report that their daily activities are ‘not limited’, compared to 83.3% for the East, and 82.4% for England.

Summary of Future Baseline

Health and wellbeing levels within the Neighbourhood Plan area are generally good, with a high percentage of residents reporting ‘good’ or ‘very good’ health, and a low percentage of residents reporting that their activities are limited in some way. The percentages for the Neighbourhood Plan generally align with regional and national trends.

An ageing population within the Neighbourhood Plan area might place future pressures on health services in the area. Similarly, ongoing cuts to community services have the potential to lead to effects on health and wellbeing over the longer term.

A.7. Transportation

Context Review

European and UK transport policies and plans place emphasis on the modernisation and sustainability of the transport network. Specific objectives include reducing pollution and road congestion through improvements to public transport, walking and cycling networks and reducing the need to travel. National policy also focuses on the need for the transport network to support sustainable economic growth.

⁴⁶ ONS (no date): Census 2011: ‘Long-term Health Problem or Disability 2011’ (Table QS303EW)

At the local level, each Local Transport Authority in England and Wales has a statutory duty to produce and adopt a Local Transport Plan through the Local Transport Act 2000, as amended by the Local Transport Act 2008.

The Cambridge City and South Cambridgeshire Transport Strategy was adopted in 2014 with aims to⁴⁷:

- Ensure that main transport routes into Cambridge have good, high-quality public transport
- Link villages with public transport along busy transport routes
- Enable more people to walk and cycle and ensure cycle networks are more joined up
- Encourage more people to car share
- Support more locally led transport solutions in remote areas where conventional bus services are not viable

At a local level, There are number of Local Plan policies of relevance, these are:

- Policy TI/2- 'Planning for Sustainable Travel'
- Policy TI/3: 'Parking Provision'
- Policy TI/8: 'Infrastructure and New Developments'.

Baseline Summary

Summary of Current Baseline

Rail Network

Residents within the Neighbourhood Plan area have limited access to local railway stations. The nearest railway station (Waterbeach) sits 4 km south-east of the neighbourhood plan area. Ely Station is located 8 km north-east of the Neighbourhood Plan area linking residents to the Cross Country, Great Northern, East Midlands and Great Anglia Networks. Both stations have good connections to Cambridge city centre, approximately 10km south of Cottenham.

Bus Network

Regular buses connect Cottenham south towards Cambridge city centre, with the Citi 8 bus, operated by Stagecoach, running every 20 minutes via Histon. A&P coaches connect Cottenham northwards to Ely by the 110 service, limited to twice a week on Thursday and Saturday.

Road Network and Congestion

The B1049 provides connections from Cambridge through the centre of Cottenham and continues north intersecting the A1123 at Wilburton. The A14 meets the B1049 at junction 32 and passes through Histon, 3.5 km south of Cottenham. Following pressures to ease congestion, unlock growth and improve connectivity between communities in the area, a £1.5 billion transport scheme commenced on the A14 west and south of Cottenham in 2016, with a completion year of 2020. The scheme comprises of improvements to the Cambridge Northern and Southern Bypasses, widening of existing carriageway and the construction of approximately 7 miles of new local access roads⁴⁸. The scheme also aims to reduce 'rat-running' through the centre of Cottenham⁴⁹.

⁴⁷ Transport Strategy for Cambridge and South Cambridgeshire (2014) [online] available at <https://ccc-live.storage.googleapis.com/upload/www.cambridgeshire.gov.uk/residents/travel-roads-and-parking/2014_01_23_TSCSC_Strategy_v4.0_JSTSPG_changes_POST_JSTandSPG.pdf?inline=true> accessed [03/05/18]

⁴⁸ Transport Assessment RSK (2018) [online] available at: <<http://plan.scambs.gov.uk/swifltg/MediaTemp/1149858-776315.pdf>> last accessed [10/06/18]

⁴⁹ Sustrans (2018): National Cycle Network, [online]: route map available to view via: <<https://www.sustrans.org.uk/ncn/map/national-cycle-network>> last accessed [10/06/18]

Cycle and Footpath Network

Two national network cycle routes border Cottenham: Route 51, passing through Oxfordshire, Buckinghamshire, Bedfordshire, Cambridgeshire, Suffolk and Essex forming part of the North Sea Cycle Route (EuroVelo12); and Route 11, linking Harlow in Essex with Wigginhall St Germans in Norfolk via Cambridge and Ely. At present there are no designated cycle routes through Cottenham, however the local roads generally have low speeds, facilitating a safe cycling environment particularly outside peak hours. Cottenham is within 10km of Cambridge city centre, taking approximately 35 minutes by bike, which provides local residents with the opportunity to commute into the city for work and leisure activities.

A network of footways and existing highway routes connect Cottenham village centre with surrounding residential areas for pedestrians. The majority of crossing points provide dropped kerbs; frequent zebra crossings and pedestrian islands are located throughout the village.

Availability of Cars and Vans

Based on the 2011 census data, 87.7% of households in the Neighbourhood Plan area have access to at least one car or van, which is higher than the percentages for the East (81.5%), and England (74.2%); and just below totals for South Cambridgeshire (89.0%).

Travel to Work

The most popular method of travelling to work in the Neighbourhood Plan area is via driving a car or van (50.4%), considerably exceeding the total for England (36.9%) and slightly above the totals for South Cambridgeshire (46.9%) and the East (41.4%). 4.7% of the working population in the Neighbourhood Plan area choose to walk to work. This is lower than the totals for South Cambridgeshire (4.9%), the East of England (6.8%) and England (7.0%). In terms of cycle use, 4.8% of the working population in the Neighbourhood Plan area choose to cycle to work, which is lower than the totals for South Cambridgeshire (5.8%).

Summary of Future Baseline

New development has the potential to increase traffic and cause congestion within the Neighbourhood Plan area. Enhancements to public transport links and pedestrian and cycle networks have the potential to enhance accessibility in the Neighbourhood Plan area.

Home working and running a business from home is likely to continue to be an increasing trend.

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