

16 Community and private assets

Executive summary

The community and private assets chapter of the *Environmental Statement (ES)* assesses the likely significant effects of the A14 Cambridge to Huntingdon improvement scheme (the scheme) on people and communities. The assessment has regard for likely impacts on agricultural land, farms, community facilities, private property, development land, community severance and socioeconomic impacts on labour from the construction of the scheme.

The scheme aims to deliver increased economic growth by enabling major residential and commercial developments to proceed; to connect people by freeing up local capacity for all road users; and to create a positive legacy for local communities and businesses.

The scheme introduces major new infrastructure into the area that will affect the existing baseline conditions in a variety of ways. Land take required for the scheme will affect agricultural land and farms along the new build sections. To a lesser extent, land take and changes in access will also affect existing community facilities and private property and the viability of development land. The scheme footprint will affect severance between communities while construction of the scheme will affect the local economic baseline.

Although mitigation through scheme design and soil management would reduce the effects on valuable agricultural soils and land, it is estimated that the scheme would require some 1,000ha of predominantly high grade agricultural land, which would have significant adverse effects on 30 farm units. While access routes would be maintained through mitigation, several farms would be severed by the scheme and would have to reorganise the way the land is cultivated in order to remain viable.

Impacts on community facilities and private property have been mitigated through the design process, although some residual adverse effects are expected at the individual receptor level. Residual beneficial effects are also expected at individual receptors and overall scheme wide effects are not expected to be significant. Overall impacts on development allocations are expected to lead to beneficial effects through improvements to access.

In urban areas and villages the scheme would bring both beneficial as well as adverse effects as a result of land take, re-routing and provision of new access routes, though overall effects are not likely to be significant. The local economy of the region would benefit as the scheme would be expected to result in the creation of approximately 800 to 1,600 additional jobs in the region during construction.

16.1 Introduction

- 16.1.1 This chapter has assessed likely significant effects on communities and individuals from impacts on public and private assets.
- 16.1.2 Existing conditions have been characterised to establish the baseline against which likely significant effects from the construction and operation of the scheme have been assessed.
- 16.1.3 The chapter covers the likely impacts on:
- agricultural land and farms;
 - community facilities and land used by the community;
 - private property including residential, commercial and industrial;
 - development land including planning applications and development land allocations;
 - communities with reference to severance; and
 - employment opportunities.
- 16.1.4 The assessment has been undertaken in accordance with guidance for Community and Private Assets identified in the *Interim Advice Note 125/09* (Department for Transport, 2009), which draws upon relevant parts of guidance in the *Design Manual for Roads and Bridges Volume 11 Environmental Assessment (DMRB)* (Highways Agency, 1993) for the following topics:
- land use; and
 - community effects.
- 16.1.5 The scope has been expanded from current DMRB guidance to include a socioeconomic assessment of the additional local employment from construction of the scheme.
- 16.1.6 The figures for this chapter include *Figure 16.1 to Figure 16.4*. Soils are discussed further in *Chapter 12* which assesses geology and soils, while *Chapter 13* further investigates the use of materials for the scheme. Also relevant to this assessment is *Chapter 15* which addresses the effects on all travellers and includes assessment of impacts on footpaths and access.

Legislative and policy background

- 16.1.7 The chapter has taken into consideration a number of national and local planning policies as listed below.

National planning policy

- 16.1.8 The *Draft National Policy Statement for National Networks* (Department for Transport, 2013) includes a number of relevant statements in relation to community and private assets which have been incorporated into the assessment, including:
- (Paragraph 5.151) The Environmental Statement should identify existing and proposed land uses near the project (for example, where a planning application has been submitted), any effects of replacing an existing development or use of the site with the proposed project, or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan.
 - (Paragraph 5.152) Applicants considering proposals which would involve building on open space, sports or recreational buildings and land should have regard to any local authority's assessment of need for such types of land and buildings.
 - (Paragraph 5.154) Applicants should take into account the economic and other benefits of the best and most versatile agricultural land (defined in grades 1, 2 and 3a of the Agricultural Land Classification). Where significant development of agricultural land is demonstrated to be necessary, applicants should seek to use areas of poorer quality land (grades 3b, 4 and 5) in preference to that of a higher quality. Applicants should also identify any effects, and seek to minimise impacts on soil quality taking into account any mitigation measures proposed.
- 16.1.9 The following sections of the *National Planning Policy Framework (NPPF)* (Department for Communities and Local Government, 2012) set out objectives relevant to community and private assets:
- building a strong and competitive economy (*Chapter 1*);
 - supporting a prosperous rural economy (*Chapter 3*);
 - promoting healthy communities (*Chapter 8*);
 - protecting green belt land (*Chapter 9*); and
 - conserving and enhancing the natural environment (*Chapter 11*).
- 16.1.10 Various chapters within the *Planning Practice Guidance* (Department for Communities and Local Government, 2014) are relevant to this chapter, namely:
- Environmental Impact Assessment; and
 - Open space, sports and recreation facilities, public rights of way and local green space.
- 16.1.11 In regards to open space, the *Planning Practice Guidance*, states that it should be taken into account in planning for new development and considering proposals that may affect existing open space. Open space,

which includes all open space of public value, can take many forms, from formal sports pitches to open areas within a development, linear corridors and country parks. It can provide health and recreation benefits to people living and working nearby; have an ecological value and contribute to green infrastructure, as well as being an important part of the landscape and setting of built development, and as an important component in the achievement of sustainable development. The *Planning Practice Guidance* also references the *NPPF* concerning open space.

- 16.1.12 The *NPPF* highlights that 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. Paragraph 74 of the *NPPF* states that existing open space, sports and recreational buildings and land, including playing fields, should not be built on unless:
- an assessment has been undertaken which has clearly shown the open space, buildings or land to be surplus to requirements; or
 - the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or
 - the development is for alternative sports and recreational provision, the needs for which clearly outweigh the loss.
- 16.1.13 In line with the above guidance, the scheme design has taken existing land use into account and avoids public open space, sports and recreational buildings and land, including playing fields.
- 16.1.14 Paragraph 109 of the *NPPF* states that the planning system should contribute to and enhance the natural and local environment by:
- protecting and enhancing valued landscapes, geological conservation interests and soils; and
 - preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.
- 16.1.15 Paragraph 112 of the *NPPF* states that local planning authorities should take into account the economic and other benefits of the best and most versatile agricultural land. Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality.
- 16.1.16 *Safeguarding our Soils: A Strategy for England* (Defra, 2009) provides the national policy context for soils. It sets out a number of core policy objectives including that, by 2030, all of England's soils will be managed sustainably and degradation threats tackled successfully.
- 16.1.17 *Technical Information Note 049 (TIN049)* (Natural England, 2009) describes the Agricultural Land Classification (ALC) system, originally developed by the former Ministry of Agriculture, Fisheries and Food (MAFF, 1998), now Department of Environment, Fisheries and Rural Affairs (DEFRA), as a means to protect the best and most versatile agricultural land.

Local planning policy

- 16.1.18 The following local policies are relevant to the community and private assets of the area and have been used to inform the assessment presented in this chapter. The policies listed describe the relevant planning and development goals and guidelines set out by the local county councils to be used to guide local development in the area.
- 16.1.19 *Cambridge Local Plan 2006:*
- *Policy 3/9 Watercourses and Other Bodies of Water.*
 - *Policy 4/2 Protection of Open Space.*
 - *Policy 4/3 Safeguarding Features of Amenity or Nature Conservation Value.*
- 16.1.20 *The Cambridge Local Plan 2014: Proposed Submission:*
- *Policy 67 Protection of Open Space.*
- 16.1.21 *South Cambridgeshire Development Control Policies Development Plan Document (July 2007):*
- *Policy DP/1 Sustainable Development.*
 - *Policy SF/11 Protection of Village Services and Facilities.*
 - *Policy SF/9 Protection of Existing Recreation Areas.*
 - *Policy NE/17 Protecting High Quality Agricultural Land.*
 - *Policy GB/1 Development in the Green Belt.*
- 16.1.22 *The South Cambridgeshire Local Development Framework and the Local Plan 2011-2031: Proposed Submission:*
- *Policy NH/3 Protecting Agricultural Land.*
 - *Policy NH/12 Local Green Space.*
 - *Policy SC/3 Protection of Village Services and Facilities.*
 - *Policy SC/9 Protection of Existing Recreation Areas, Allotments and Community Orchards.*
- 16.1.23 *Huntingdonshire Core Strategy (September 2009):*
- *Policy CS1 Sustainable Development in Huntingdonshire.*
- 16.1.24 *Saved policies from the Huntingdonshire Local Plan 1995 and the Local Plan Alteration 2002:*
- *Policy H22 Agricultural Land Protection.*
 - *Policy H30 Residential Amenity Protection.*
 - *Policy R1 Promotion and Monitoring of Recreation Facilities.*
 - *Policy 12 Children's Play Areas.*
 - *Policy R13 Informal Countryside Recreation.*
 - *Policy R15 Public Rights of Way.*

16.1.25 *Huntingdonshire Draft Local Plan to 2036:*

- *Policy LP1 Strategy and Principle for Development.*
- *Policy LP15 Ensuring a High Standard of Amenity.*
- *Policy LP23 Local Services and Facilities.*
- *Policy LP30 Open Space.*

16.1.26 The following policy is also relevant specifically in regard to borrow pits:

- *Minerals and Waste Development Plan (Cambridgeshire County Council and Peterborough City Council, 2012) Policy CS34 Protecting Surrounding Uses* refers to the protection of human health or safety, neighbouring land uses, visual intrusion, loss of amenity and the need for mitigating measures.

16.2 Method of assessment

16.2.1 For this assessment, community and private assets have been considered within three sub-topics:

- agricultural land and farms;
- community facilities, private property and development land; and
- community and socioeconomics.

16.2.2 The assessment of agricultural land and farms, and community facilities, private property and development land has been conducted primarily in regards to land use and access. The assessment of community and socioeconomics has adopted a broader approach to consider severance at the community scale and the effects of employment opportunities during construction of the scheme in the local region of Cambridgeshire.

16.2.3 The assessment of the first two sub-topics relating to land use draws on *DMRB Volume 11, Section 2, Part 6* (Highways Agency, 2008) in relation to:

- agricultural land;
- farms;
- community facilities;
- private property; and
- development land.

16.2.4 The assessment of the third sub-topic, community and socioeconomics, addresses community severance, expanding on *DMRB Volume 11, Section 3, Part 8*, (Highways Agency, 1993) with the addition of the socioeconomic assessment which is an addition to current DMRB guidance and follows the approach of the *Additionality Guide* (English Partnerships, 2008).

16.2.5 The study area varies depending on the topic of assessment. The agricultural land and farms assessment has considered the footprint of the scheme and adjacent land which may be severed. Community facilities and private property have been considered within approximately 1km of the scheme. Development land is considered within 500m of the scheme,

though major planning allocations up to 2km from the scheme have been considered where the likelihood for impact exists. For community effects, the assessment has focused on communities which would be directly affected by the scheme. Assessment of socioeconomic effects is made with consideration for the Cambridgeshire region.

- 16.2.6 Sensitivity and significance criteria have been developed for the purposes of this assessment as follows:
- agricultural land is assessed based on the quality and quantity of agricultural land affected;
 - farming businesses are assessed based on future viability of the farm caused due to severance and changes to access where the change would impact the farm operations;
 - community facilities and private property are assessed based on the level of severance to access and land take; and
 - development land is assessed based on land take, severance to access and impacts on amenity.
- 16.2.7 Farming businesses have been considered for assessment where a portion of the holding is affected by the scheme's footprint. This may involve a loss of productive land or loss of access to land and resulting alteration in the way the land must be farmed. The size of the farm operation, ownership and access routes have been considered during the impact assessment of these receptors. Farm holdings are assessed individually with the use of stated criteria, with a likely worst case approach being adopted where there is uncertainty.
- 16.2.8 Community facilities have been identified in the study area and considered within approximately 1km of the scheme (unless otherwise noted) in order to capture the likely effects of the scheme from severance to access as well as direct land take.
- 16.2.9 Private assets considered in this assessment have generally been limited to those properties directly affected by land take for the scheme or for which access routes may be affected. The viability of these assets has been considered in conjunction with these factors.
- 16.2.10 Planning applications that have been considered as relevant include new build or significant extensions for which the scheme may be of consequence, and which have been submitted in the previous three years to June 2014.
- 16.2.11 Potential impacts on development land allocations include land take and land access, as well as amenity impacts and whether the intended use of the land becomes less viable due to the scheme as a result.
- 16.2.12 Community severance has been assessed based on the impacts to settlements that would be directly caused by the footprint of the scheme, and also in regard to traffic impacts on primary access routes which are covered in more detail in *Chapter 7*.
- 16.2.13 The socioeconomic assessment has made use of spend and labour information and employment multipliers from the *Additionality Guide* (English Partnerships, 2008) to estimate the employment effects of the construction of

the scheme on the local labour market of Cambridgeshire. Due to the uncertain nature of this assessment, high and low values are used for some input variables to produce an estimated range of job creation thought likely to contain the actual value. The focus is limited to local impacts as wider economic implications are covered in the economic assessment included in the *Case for the Scheme*.

16.2.14 Other likely significant effects on people and communities associated with air quality, landscape, noise and vibration effects have been addressed in the respective chapters of the *ES* as follows:

- *Chapter 8* Air quality;
- *Chapter 10* Landscape; and
- *Chapter 14* Noise and vibration.

Assessment criteria

Agricultural land and farming

- 16.2.15 The agricultural assessment has quantified the impact of the proposed scheme on soils of different Agricultural Land Classification (ALC) grades as described in *Technical Information Note 049* (Natural England, 2009), and originally set out in *Agricultural Land Classification of England and Wales* (MAFF, 1988).
- 16.2.16 Farming viability has been assessed through analysis of land take, severance and access effects of the scheme. The assessment has been informed by analysis of the scheme design and land boundaries as well as information gathered through stakeholder consultation and site visits to farmsteads. The extents of any major reorganisation of the holding or increased demands on management that may be caused by the scheme have been considered where applicable.
- 16.2.17 The assessment has made use of ownership data originally available in the *A14 Ellington to Fen Ditton Environmental Statement* (Highways Agency, 2009), which has been reviewed and updated through land verification. The mapping of ALC and subsequent assessment of agricultural land has been carried out through GIS analysis of ALC data sets supplied by Natural England.
- 16.2.18 As a nationally recognised set of standard assessment criteria for effects on agricultural land and farm businesses does not exist, a bespoke set of criteria was developed for the previously produced *A14 Ellington to Fen Ditton Environmental Statement* (Highways Agency, 2009). This approach has been retained for the current study.
- 16.2.19 The significance criteria for agriculture relate to two issues: impact on the national resource of agricultural land quality; and impact on individual farm businesses as set out in *Table 16.1 and 16.2*, respectively. For the purposes of this assessment, effects are considered to be significant when found to be 'moderate' or 'major'.

Table 16.1: Significance of effect on agricultural land quality

Effect	Criteria
Major	Loss of 20ha or more of the best and most versatile agricultural land – that is land classified as grades 1, 2 or 3a under the MAFF (now DEFRA) originated ALC system. This follows the approach of Annex B15 of PPG7 as amended March 2001, which stipulated that MAFF (DEFRA) had a right to be consulted and hence object to schemes where a significant amount of such land was required for development. This has not been retained in the current guidance (NPPF) but nonetheless represents a measure of land loss that has been used in planning issues for 20 years or more.
Moderate	Loss of 10-19ha of best and most versatile agricultural land - grades 1, 2 or 3a – or 50ha or more of lower quality agricultural land - grades 3b, 4 and 5 under the MAFF (DEFRA) ALC system. This represents the mid-range between the upper and lower thresholds.

Effect	Criteria
Minor	Loss of 5-9ha of best and most versatile agricultural land - grades 1, 2 or 3a - or 10-49ha of lower quality agricultural land - grades 3b, 4 and 5 under the MAFF (DEFRA) ALC system. A threshold of 10 acres (approximately 4ha) or more follows the approach of paragraph 6 of the <i>Department of the Environment Circular 71/71 (Welsh Office Circular 152/71) 'Development of Agricultural Land'</i> .
Negligible	Loss of less than 4ha of best and most versatile agricultural land - grades 1, 2 or 3a - or less than 10ha of lower quality agricultural land - grades 3b, 4 and 5 under the MAFF (DEFRA) ALC system. This is in line with the <i>Department of the Environment Circular</i> quoted above.

Table 16.2: Significance of effect on local farm businesses

Effect	Criteria
Major Adverse	Renders a farming business unworkable in its current form, such that it could not continue unchanged; the farming business would have to change the activities undertaken as well as seeking some form of alternative income. Farm is severed into two or more separate parcels of land, access routes significantly affected so that farming patterns reorganised. Loss of 50% or more of farm.
Moderate Adverse	Changes the workability of a full-time business but without preventing the farming business continuing largely as before. There would be reductions in income and changes in day-to-day management, such as longer journeys to access. Farmstead is severed so that a significant portion is separated from the rest of the farm, access changes result in alteration to farming patterns. Loss of between 25% - 50% of farm.
Minor Adverse	Affects the workability of a full-time business but with little change to the farming business continuing largely as before. There would be limited change in income and day-to-day management. Any severance is minimal and any change in access has no bearing to farm organisation. Loss of between 5% - 25% of farm.
Negligible	No or minimal direct impact or multiple impacts (adverse or beneficial) that lead to an overall neutral assessment. Loss of less than 5% of farm.
Beneficial	Improved access to farm which may result in an improvement in transportation around the farmstead improving farm viability.

Community facilities, private property and development land

16.2.20 The categorisation of sensitivity of community facilities and private property has been based on the type and value of the asset affected by the scheme as set out in *Table 16.3*. These criteria were used as a guide, with each asset assessed individually based upon the professional judgement of suitably qualified and experienced specialists, as listed in *Appendix 6.1 of the ES*.

Table 16.3: Sensitivity criteria

Sensitivity	Description
High	<ul style="list-style-type: none"> Residential or commercial buildings. Buildings used by the community e.g. schools, community halls. Community land that attracts users nationally e.g. national parks. Religious sites and cemeteries.
Medium	<ul style="list-style-type: none"> Residential or commercial land e.g. gardens. Land used by the community on a regional scale, e.g. country parks, forests and other land managed in such a way as to attract visitors from a regional catchment.
Low	<ul style="list-style-type: none"> Derelict or unoccupied buildings. Locally used community land, e.g. local parks and playing fields.

16.2.21 The categorisation of magnitude of impact is based on the criteria set out *Table 16.4*.

Table 16.4: Impact magnitude

Magnitude	Description
High	<ul style="list-style-type: none"> Demolition of buildings, >50% loss of land and/or complete severance of access due to land take causing complete re-routing of access.
Medium	<ul style="list-style-type: none"> Between 15% and 50% loss of land and/or major severance of access due to land take causing large diversions.
Low	<ul style="list-style-type: none"> <15% land loss and/or partial severance of access due to land take causing small diversions.
Negligible	<ul style="list-style-type: none"> Very slight change from the baseline condition. Change hardly discernible, approximating to a 'no change' in conditions.

16.2.22 The significance of the effects is a function of the magnitude of impact and the sensitivity of the receptor. The significance of effects is determined with reference to the matrix presented in *Table 16.5*. Effects are considered to be significant when found to be 'moderate' or 'major'.

Table 16.5: Significance of effects

Magnitude \ Sensitivity	Negligible	Low	Medium	High
High	slight	Slight or moderate	Moderate or major	major
Medium	Negligible or slight	slight	moderate	Moderate or major
Low	negligible	Negligible or slight	slight/moderate	moderate

16.2.23 The assessment of effects of the scheme on development land is based upon the professional judgement of suitably qualified and experienced specialists, as listed in *Appendix 6.1 of the ES* with reference to the criteria in

Table 16.6. Each of the proposals identified as being likely impacted has been described individually in subsequent sections of this report.

Table 16.6: Summary of effects on development land

Assessment criteria	Viability	Amenity
Beneficial	The land would still be available for the proposed use and the development of the proposed scheme would improve the viability of the site for the proposed development (generally through improved access).	Impacts on the amenity of the site would not interfere with its proposed use or the impact on the amenity would be beneficial, in that the proposed scheme would improve the site's appropriateness for its proposed use.
Neutral	The land would still be available for the proposed use and there would be no discernible impact on the viability of the site for the proposed development.	There would be no impact on the amenity of the site that would interfere with its proposed use.
Adverse	Some or the entire site would no longer be available for the proposed use, therefore reducing the viability of the development.	There would be a reduction in amenity such as to interfere with the proposed use of the site.
Mixed	Potential impacts include some adverse and some beneficial factors.	Potential impacts include some adverse and some beneficial factors.

Community and socioeconomic effects

16.2.24 Community severance has been assessed based on the impacts to settlements that would be directly caused by the footprint of the scheme, and also in regards to traffic flows on primary access routes, with reference to the traffic thresholds adapted from *DMRB Volume 11, Section 3, Part 8*, (Highways Agency, 1993). The assessment adopts 8,000 vehicles per day or Average Annual Daily Traffic (AADT) as the minimum for a significant effect to be present, and traffic thresholds as shown in *Table 16.7*.

Table 16.7: Traffic thresholds

	Slight	Moderate	Major
Built up area	+/- 30%	+/- 30-60%	+/- 60%
Rural area	+/- 60-75%	+/- 75-90%	+/- 90%

16.2.25 The assessment has addressed socioeconomic impacts on the local community in terms of additional employment opportunities. This aspect of the assessment is quantitative and does not use pre-specified qualitative assessment criteria to characterise the significance of effect.

Limitations

- 16.2.26 Data on agricultural soil quality do not exactly match the criteria set by Government to assess the effects of development on agricultural land as adopted for the purposes of this assessment (*Table 16.1*). Specifically, it is not possible to distinguish ALC levels 3a and 3b from the regional mapping information in accordance with the *Agricultural Land Classification of England and Wales* (MAFF, 1998). For the purposes of this assessment it has been conservatively assumed that all soil mapped as level 3 falls into the ‘best and most versatile’ category of ALC level 3a, this represents the adoption of a worst case scenario.
- 16.2.27 ALC data are not available at the scale of individual farms; as such the assessment of ALC grades has been undertaken at a higher level by geographical section of the scheme as defined in *Chapter 3*.

16.3 Previous studies and baseline information

- 16.3.1 Baseline information has been collected to describe conditions in 2014 and is assumed to provide a reasonable approximation for conditions during the construction stage (commencing 2016) and the early years of operation (commencing 2020), as changes in baseline would be either unpredictable or so minor that the outcome of the assessment would not be affected. In accordance with *DMRB* guidance, the traffic data used in the assessment of community severance, community facilities and private property have been modelled for opening year, 2020.
- 16.3.2 The baseline has primarily been established through a desk based study including a review of existing information previously produced by the Highways Agency and drawing on the *A14 Ellington to Fen Ditton Environmental Statement* (Highways Agency, 2009), and verified or updated through different facets of this assessment.
- 16.3.3 Existing information has been verified with GIS analysis of ALC data supplied by Natural England and research of publicly available and readily accessible information from online sources, such as the relevant County Council websites. Interviews with farmers and landowners have also been undertaken to inform the assessment.
- 16.3.4 The baseline provides general context and identifies community and private assets that may be impacted by the scheme.

Agricultural land and farming baseline

Agricultural land

- 16.3.5 *Figure 16.1* shows the Agricultural Land Classification for the region around the A14. *Chapter 3* provides a description of the six sections of the scheme outlined below; these are illustrated in *Figure 3.1*.
- 16.3.6 The scheme includes new sections of road being built ‘offline’, primarily on land which is currently in agricultural use, as well as ‘online’ sections of work involving improvements to existing roadway. Government policy, as set out in the *National Planning Policy Framework* (Department for Communities and Local Government, 2012), *National Policy Statement* (Department for Transport, 2013) and *Technical Information Note 049* (Natural England,

2009), is designed to protect the 'best and most versatile land', considered to be ALC Grades 1, 2 and 3a. The ALC provides a framework for classifying land according to how well its physical or chemical characteristics support agricultural use in the long-term. The study area of the scheme is primarily Grades 2 and 3, with the Grade 3 classification subject to the limitations and assumptions discussed in paragraph 16.2.26.

Online sections (sections 1, 4, 5 and 6)

- 16.3.7 Section 1 runs between Alconbury and Brampton Hut and is primarily Grade 3 land and to a lesser extent Grade 2 land.
- 16.3.8 Section 4 runs between Swavesey and Girton, through land predominantly assumed to be of the best and most versatile quality, Grades 2 and 3.
- 16.3.9 Section 5 runs between Histon and Milton, also through land predominantly assumed to be of the best and most versatile quality, Grades 2 and 3.
- 16.3.10 Section 6 is within Huntingdon and is primarily urban.

Offline sections (sections 2 and 3)

- 16.3.11 Section 2 between Brampton Hut and the East Coast mainline railway lies over land predominantly of the best and most versatile quality, Grade 2 and 3.
- 16.3.12 Section 3 between the East Coast mainline railway and Swavesey also lies over land predominantly of the best and most versatile quality, Grade 2 and 3.

Farming

- 16.3.13 Farming in the area is primarily arable and is characterised by large farms of over 50ha. A large proportion of these farms are tenanted and owned by organisations, including Cambridge University colleges and Church Commissioners. Some agricultural holdings are uninhabited outlying fields of larger farmsteads, some of which are outside of the study area.
- 16.3.14 The main crops are those associated with heavy land rotations, typically winter wheat with beans and oil seed rape. There is a small amount of grassland, with cattle present at Conington, Brampton and Girton and some pony paddocks, particularly around towns and villages.
- 16.3.15 At Bar Hill (Noon Folly) and east of Girton the route corridor includes nationally important agricultural trials grounds belonging to the National Institute for Agricultural Botany (NIAB). There is an agricultural reservoir on NIAB's land north of the A14 between Girton and Histon.

Community facilities, private property and development land baseline

Community facilities

- 16.3.16 An important aspect of communities and community cohesion is the presence of facilities used by the residents for activities such as recreation, worship and ceremony, and provision of services such as libraries, police and fire stations, hospitals, schools, public utilities and others. The facilities considered either lie within or adjacent to the scheme's footprint, or are within approximately 1km of the scheme or in the surrounding settlements.

Note that this is not an extensive list of the facilities present but rather only identifies facilities which may be impacted.

16.3.17 There are a number of organisations and facilities in the study area which serve the local and wider communities which have been considered of particular importance in regards to the scheme. These include:

- Offord and Buckden Angling Society;
- Cambridge Services (service centre for the wider community);
- Cambridge Crematorium;
- Hinchingsbrooke Hospital;
- Hinchingsbrooke School;
- Cambridgeshire Constabulary headquarters (police station); and
- Huntingdon Fire Service.

Golf courses

16.3.18 Although golf courses are private businesses, they also act as community recreational facilities. As such they have been considered within this assessment under the community facilities section. The following are present in the study area and may be impacted:

- Hemingford Abbot Golf Club and Conference Centre; and
- Menzies Cambridge Hotel and Golf Course.

16.3.19 Communal land and open spaces have been considered within or adjacent to the scheme's footprint, as well as spaces within approximately 1km of the scheme or in the surrounding settlements. These include parks, playing fields, pathways (see also *Chapter 15*) and other undesignated open spaces such as forest and water features that are used by the community. The following community land has been identified for the purposes of this assessment:

- Westside Common;
- Bar Hill Parish Council land at Bar Hill Junction; and
- Trinity College woods.

Private property

Residential property

16.3.20 Residential property has been considered where it is present on or adjacent to the scheme's footprint thus potentially requiring compulsory purchase, demolition, or the alteration of access routes. The residential dwellings with potential to be affected are mostly on or in proximity to existing farmsteads as follows:

- Grafham Cottages, Buckden;
- Kasauli, Buckden;
- Hill Rise, Buckden;
- Orchard View, Buckden;
- Wayside, Boxworth;
- Hill Farm Cottages, Lolworth; and
- three properties between Huntingdon railway station car park and the existing A14, Huntingdon.

Commercial property

16.3.21 There are a number of local businesses along the existing A14, the offline sections of the scheme and within the nearby settlements which have been considered in the assessment due to their sensitivity and their potential to be impacted by the proposed scheme. These include industrial estates, service stations, hotels, recycling sites, leisure facilities and public houses. Businesses with potential to be impacted are listed below:

- *Businesses*
 - Landmans Portaloo, Brampton;
 - Goff Petroleum Site, Brampton;
 - Buckingham Business Park (multiple commercial tenants), Swavesey;
 - Whippet Coaches, Swavesey;
 - Landro, Huntingdon;
 - David Ball Group, Bar Hill; and
 - Barker Storey Matthews, Huntingdon.
- *Service stations and garages*
 - Shell Station, Godmanchester;
 - Little Chef, KFC and Service Station, Fenstanton;
 - Little Chef, Lolworth; and
 - Mason's Garage, Swavesey.
- *Hotels*
 - Travelodge, Fenstanton.

- *Leisure and recreational businesses*
 - Crystal Lakes Leisure Centre, Fenstanton.
- *Equestrian and animal shelters*
 - Wood Green Animal Shelters, Godmanchester.
- *Landfill, waste and recycling sites*
 - Buckden Landfill Site, Buckden.
- *Utilities*
 - Network Rail and First Capital Connect, Huntingdon; and
 - Anglian Water, Lolworth.
- *Public houses*
 - King William IV, Fenstanton,
- *Vacant and unused*
 - Eyre and Denison (vacant plot), Buckden;
 - Total UK (vacant plot), Buckden;
 - Gravel pits west of river Great Ouse, Buckden; and
 - Trinity Foot (vacant pub), Swavesey.

16.3.22 See *Figure 16.2* for the location of community facilities and private property assets.

Development land

Development applications

- 16.3.23 Planning application information has been received for Huntingdonshire, South Cambridgeshire and Cambridge. Applications have been considered within 500m of the scheme, and up to 2km for major planning proposals to capture any indirect effects on these sites.
- 16.3.24 For planning applications within 500m of the scheme, exclusions have been made for any application that is minor in nature or not likely to be impacted by the scheme. There are approximately 500 planning applications with potential relevance to the scheme based on these criteria. For the impact assessment, this list has been reduced to only include the two dozen or so applications which have potential to be impacted by the scheme, focusing on those with new build or major change of use.
- 16.3.25 There are a number of strategic development sites and large scale planning applications in the study area that may have an influence on or be influenced by the scheme. These are identified in the list of development land allocations in section 16.3 below. They include the developments incorporated in the traffic model (*Chapter 7*) and considered in the assessment of cumulative impacts (*Chapter 18*).

Development land allocations

- A review of relevant local development plans has identified the following major development sites: Alconbury Weald (SEL1) – a mixed use allocation for approximately 5,000 dwellings, retail, employment, leisure and community facilities being considered through the emerging *Huntingdonshire Local Plan to 2036* (Huntingdon District Council, 2009b). Approximately 150ha of the site has been designated as a Government Enterprise Zone. The site includes up to 290,000sqm of employment floorspace, other community facilities including health, retail, leisure and non-residential institutions. An outline planning application for this allocation (1201158OUT) is currently awaiting determination.
- Northbridge, Huntingdon (HU 2) – a housing allocation for approximately 1,000 dwellings, a primary school, community facilities and associated works is located off Ermine Street, to the north of Huntingdon. The site was identified in the *Huntingdonshire Local Plan Alteration 2002* (Huntingdon District Council, 2002) and an application for outline permission is awaiting determination (1001712OUT).
- Huntingdon West - The *Huntingdon West Area Action Plan (HWAAP)* (Huntingdon District Council, 2011) adopted in 2011 intends that by 2026 Huntingdon West, an area of approximately 300ha, is a vibrant part of the town enjoyed by residents, workers and visitors. To achieve this it is proposed to develop new and improved transport routes, provide modern residential, retail and office development, and enhance and enlarge Hinchingsbrooke Country Park.
- RAF Brampton (HU 18) – the draft *Huntingdon Local Plan to 2036* (Huntingdon District Council, 2009b) includes a proposal for a mixed use allocation for approximately 400 dwellings, 3.2ha of employment land, and retail and community facilities to the west of the B1514. The development would be to the north of the proposed upgrade of the Brampton interchange. The southern parcel of land closest to the Brampton interchange has been identified as being unsuitable for development at this time.
- Bearscroft Farm, Godmanchester (HU 20) – the *Huntingdonshire Core Strategy* (Huntingdon District Council, 2009a) identifies the potential for development on Greenfield land to the south-east/east and south-west of Godmanchester with an outline planning permission (1200685OUT). This includes the area of Bearscroft Farm which has been identified for mixed use development (including 750 dwellings, employment and community facilities). This site is located, south of the A14 adjacent to the A1198.

- Northstowe (NS/3) – the *South Cambridgeshire Core Strategy* (South Cambridgeshire District Council, 2007b) Development Plan Document sets out an area of approximately 432ha located to the east of Longstanton and to the north of Oakington to accommodate a new town with a target capacity of 10,000 dwellings (aiming for at least 4,800 dwellings by 2016) and associated employment, services, facilities and infrastructure. Planning permission has been granted for phase 1 (S/0388/12/OL) for 1,500 homes and associated facilities; later phases have not received a formal planning decision as of the time of writing this report.
- Bourn Airfield (Site 057): Land south of the A428 based on Bourn Airfield is allocated in the South Cambridgeshire Local Development Framework for the development of a new village of approximately 3,500 dwellings.
- North West Cambridge (NW4) – *The North West Cambridge Area Action Plan* (Cambridge City Council and South Cambridgeshire District Council, 2009) has been prepared addressing the 150ha site to the west of Cambridge bound by Huntingdon Road, Madingley Road and the M11. Planned for 100ha to be developed and 50ha to be open space. The property is owned by the University of Cambridge. The development is to include housing, employment and local services for 1,500 key workers, 2,000 postgraduate students, 1,500 homes for sale and 100,000sqm of research facilities, as well as a local centre with community facilities. Outline planning permissions (11/1114/OUT and S/1886/11) have been approved.
- Darwin Green: The land between Huntingdon Road and Histon Road is allocated in the *Cambridge Local Plan* (Cambridge City Council, 2013) to be developed as a largely residential development of 1,500 dwellings as well as associated facilities and services including a school, shops and community facilities. A planning application has been approved (C/07/0003/OUT).
- Cambridge Northern Fringe West (Orchard Park): A mixed use development site bounded by the A14, Histon Road, and Kings Hedges Road including up to 900 dwellings is allocated within the *South Cambridgeshire Site Specific Policies Development Plan Document* (South Cambridgeshire District Council, 2010). Site to include sustainable housing, a public transport interchange, business development, a primary school, a local centre and public open space. The majority of the site has already been developed.
- Cambridge Northern Fringe East: A site of approximately 75ha allocated for mixed use housing, commercial, retail, community facilities, a primary school, aggregate works, open space and waste management facilities within the Cambridge Local Plan. A portion of the site is allotted for the development of a railway station in the *South Cambridgeshire Site Specific Policies Development Plan Document* (South Cambridgeshire District Council, 2010), with a planning application approved (C/05001/13/CC).

- University of Cambridge West Cambridge Site – The University owns 66ha of land zoned for commercial research. The site is currently home to a number of enterprises but further academic buildings are planned. The University is developing proposals on how best to exploit the remaining 28,000sqm of undeveloped commercial R&D space available to best suit its initiatives.
 - Cambridge East: *Cambridge East Area Action Plan* (South Cambridgeshire District Council, 2008) sets out an area for a sustainable new urban quarter with 10,000 to 12,000 new homes based largely around Cambridge Airport which is due to move. The first phase outline planning application is currently under consideration (S/2682/13/OL).
 - Land North of Waterbeach: A new town of 8,000 to 9,000 dwellings and associated uses is proposed on the former Waterbeach Barracks and land to the east and north according to the emerging *South Cambridgeshire Local Plan* (South Cambridgeshire District Council, 2014b).
- 16.3.26 Planning applications and development land allocations are shown on *Figure 16.3*.

Community and socioeconomic baseline

Wider economic context

- 16.3.27 The entire scheme lies within the county of Cambridgeshire. Cambridgeshire is relatively affluent compared with other counties within the UK with a gross value added (GVA) per head of £22,716 in 2011, the most recent census year according to the Office for National Statistics (2012), compared with £19,355 for the east of England and £20,873 for the whole of the United Kingdom.
- 16.3.28 According to the Cambridgeshire County Council (no date), the high-tech and biotechnology industries are central to the local economy and Cambridge technologies lead the way in fields such as semiconductors, wireless technology, display technology, sensors, inkjet technology, mobile telecommunications and instrumentation. The Greater Cambridge area, including Huntingdon, is home to one of Europe's foremost biotechnology clusters. Other key sectors include high-value manufacturing, low carbon environmental goods and services (LCEGS) and food and agricultural industries.
- 16.3.29 The county had a population of 632,100 in 2013 (Office for National Statistics, no date, a). The unemployment rate was below the national average of 7.2% at 4.0% for this period. Just over half (52.1%) of the working population are employed in either managerial (9.1%), professional (26.6%) or technical (16.3%) occupations, this is higher than the national figures for these combined professions at 44.5%. Currently the construction industry employs approximately 4% of workers in Cambridgeshire. This equates to approximately 10,500 people.

Local economic area

- 16.3.30 The settlements included in the local economic study area are discussed in the settlements section below.
- 16.3.31 The economy of the local area is dominated by the city of Cambridge, located toward the south-east end of the scheme, and to a lesser degree Huntingdon, on the north-west end of the scheme. The economic characteristics of both of these communities include a relatively large and active research and development sector and high-tech industry. In between these primary centres, the economy is characterised by agricultural and other rural activities and local economic activity within the settlements (e.g. retail).
- 16.3.32 The footprint of the scheme runs mostly through areas of low deprivation according to data available from the English Indices of Multiple Deprivation. The one exception to this is the ward 'South Cambridgeshire 006E' which falls along Section 5 – A14 Cambridge Northern Bypass of the scheme just to the north of Cambridge on the existing A14. It ranks in the 35th percentile, or near the top third, of the most deprived Lower Layer Super Output Areas (the local unit used to measure deprivation) in England. There are also a few areas of relatively high deprivation to the north of Huntingdon though they are not considered close enough to the scheme to merit further assessment here.

Settlements

- 16.3.33 The existing A14 links the major settlements of Cambridge and Huntingdon. Cambridge is a regional service centre and attracts visitors from the whole of the study area, predominantly for work but also for shopping and leisure. A number of smaller settlements are found in the corridor within a few kilometres to either side of the road.
- 16.3.34 The settlements within the study area, together with an indication of their population, the schools and facilities served by these communities, and their nearest principal centre are summarised in *Table 16.8*. This is based on information available from the Cambridgeshire County Council (2014), official labour market statistics from Office for National Statistics (no date, b) and maps of Cambridgeshire retrieved from Google (2014).

Table 16.8: Settlements summary

Settlements	Primary schools	Secondary schools	Community facilities	Presence of shopping facilities	Open space, recreation areas	Population	Principal centre	A14 used/crossed for school travel
Online								
Hilton	Fenstanton and Hilton	Swavesey	-	Limited	The Green	1,052	Huntingdon	Yes
Fenstanton	Fenstanton and Hilton	Swavesey	Pharmacy	Some	Pond Green Chequers Street Green Chapel Green Honey Hill Green	3,087	Huntingdon	Yes
Conington	Elsworth	Swavesey	-	None	None	209	Huntingdon	Yes
Fen Drayton	Fen Drayton	Swavesey	-	Limited	Fen Drayton Nature Reserve, The Recreation Ground	856	Huntingdon	Yes
Swavesey	Swavesey	Swavesey	Optician, Library	Limited	Swavesey Spartans FC, Fen Drayton Lakes, Village Green,	2,463	Cambridge	No

Settlements	Primary schools	Secondary schools	Community facilities	Presence of shopping facilities	Open space, recreation areas	Population	Principal centre	A14 used/crossed for school travel
Boxworth	Elsworth	Swavesey	-	Limited	View Ponds, Alice Grove, Brown Leys Grove, The Village Green The Green	218	Cambridge	Yes
Lolworth	Swavesey	Swavesey	-	None	Roger's Wood, Lolworth Children's Playground, The Green	155	Cambridge	Yes
Longstanton	Hatton Park	Swavesey	GP, Dentist	Some	Longstanton Recreation Ground, Cambridge Golf Club and Driving Range	2,657	Cambridge	No
Bar Hill	Bar Hill	Swavesey	GP, Dentist, Optician, Library	Yes	Bar Hill Recreation Ground, Menzies Cambridgeshire Golf Course	4,032	Cambridge	Yes
Dry Drayton	Dry Drayton	Impington	-	None	The Green Pump Green	643	Cambridge	Yes

Settlements	Primary schools	Secondary schools	Community facilities	Presence of shopping facilities	Open space, recreation areas	Population	Principal centre	A14 used/crossed for school travel
Oakington	Oakington	Impington	-	Limited	The Oakington and Westwick Sports Pavilion, Stocks Green	1,527	Cambridge	No
Madingley	Coton	Comberton	Pharmacy, Ceremony Venue	None	Madingley Hall, Madingley Woods	210	Cambridge	No
Girton	Girton Glebe	Impington	GP	Yes	Girton Golf Club, Girton Playing Fields and Slim Track, Girton Millennium Wood	4,559	Cambridge	No
Histon	Histon and Impington	Impington	Library, Optician, Pharmacy	Yes	Abbey Farm, Histon Wood, The Green, Histon Football Club	4,665	Cambridge	No
Impington	Histon and Impington	Impington	GP, Hospital	Yes	Homefield Park, Histon Football Club	4,060	Cambridge	No

Settlements	Primary schools	Secondary schools	Community facilities	Presence of shopping facilities	Open space, recreation areas	Population	Principal centre	A14 used/crossed for school travel
Cambridge	Numerous	Numerous	Numerous	Yes	Nuns Way Recreation Ground, King's Hedges Recreation Ground, St Albans Road Recreation Ground Cambridge Green Belt	123,867	Cambridge	Yes
Milton	Milton	Impington	Surgery, Pharmacist, Optometrist	Yes	Milton Country Park, Sycamores Recreation Ground, Milton Maize Maze, Milton Park Golf Course	4,697	Cambridge	No
Offline								
Alconbury	Alconbury	Sawtry	GP	Limited	The Village Green	1,569	Huntingdon	No
Ellington	Spaldwick	Hinchingbrooke	-	None	Ellington Pond Ellington Common	585	Huntingdon	Yes

Settlements	Primary schools	Secondary schools	Community facilities	Presence of shopping facilities	Open space, recreation areas	Population	Principal centre	A14 used/crossed for school travel
Huntingdon	Numerous	Hinchingbrooke / St Peter's	Numerous	Yes	Westside Common, Portholme	23,732	Huntingdon	No
Brampton	Brampton	Hinchingbrooke	GP, Pharmacist, Brampton Park Golf Club	Some	Hinchingbrooke Country Park, Brampton Recreational Ground, Bromholme Lane Marina, Brampton Wood,	4,862	Huntingdon	No
Godmanchester	Godmanchester	Hinchingbrooke	Pharmacy, GP, Ceremony Venue	Some	Godmanchester Recreation Ground, Jarwood, Judith's Field	6,711	Huntingdon	No
Buckden	Buckden	Hinchingbrooke	Library, GP, Pharmacists, Dentist, Buckden Marina,	Some	Village Greens	2,805	Huntingdon	Yes
Offord Cluny and Offord Darcy	Offord	Hinchingbrooke	-	Limited	Saint Neots Bowmen, Offord Cluny Commons	1,341	Huntingdon	Yes

Other receptors

Transportation

- 16.3.35 Transportation issues that affect road users including non-motorised users have been covered in detail in *Chapter 15*. The assessment in this community and private assets section considers changes to existing roads likely to have an impact on local routes, access and severance.
- 16.3.36 Primary roads in proximity to or contained within the scheme are:
- the existing A14;
 - the Cambridge northern bypass;
 - the B1050;
 - Conington Road;
 - Hilton Road;
 - the A1198;
 - the B1043;
 - the A1;
 - the A14 in Hillingdon;
 - Walden Road;
 - Hinchingbrooke Park Road; and
 - Brampton Road.
- 16.3.37 Consideration of the impacts from a change in traffic along these and other routes from the scheme has informed the assessment of community severance.

Bus services

- 16.3.38 Bus services and routes have been considered in this chapter only to a limited extent, in so far as they facilitate general community cohesion and economic activity. Further consideration of individual routes and impacts upon access to bus stops is provided in *Chapter 15*.
- 16.3.39 The main bus operators that operate in the area between Cambridge and Huntingdon are:
- Huntingdon and District;
 - Myalls Coaches;
 - Whippet Coaches Ltd; and
 - Stagecoach in the Fens Ltd.

- 16.3.40 In addition, the Cambridgeshire Guided Busway began operation in 2011 and runs along the route of the disused St Ives to Cambridge railway line from Cambridge railway station to Addenbrooke's Hospital and Trumpington Park and Ride. It crosses under the existing A14 to the north of Cambridge. According to Cambridgeshire County Council:
- The busway has beneficial environmental impact on the A14 corridor as an attractive alternative to private cars for access between corridor towns and Cambridge for employment, shopping and leisure, by reducing congestion and emissions.
 - In association with Park and Ride facilities, the busway has captured a large catchment area and carried 7.5 million passengers in first 30 months, with patronage growing.

16.3.41 The above public transportation methods have not been assessed individually as the assessment focuses on aggregate impacts, with use of traffic modelling data, which include public transit within traffic counts. See *Chapter 15* for further discussion of public transportation and other effects on individual travellers.

Tourist attractions

16.3.42 The main tourist attraction in the study area is Cambridge itself and the architecture and green space associated with Cambridge University, which attracts people on a regional, national and international scale.

16.3.43 Other tourist attractions, including open spaces, within the study area act as a draw for more local and regional use accounting primarily for day trips. These have been considered within the Community Facilities and Private Property assessment.

Cambridge Green Belt

16.3.44 The *National Planning Policy Framework Policy 9 Protecting Green Belt land* (Department for Communities and Local Government, 2012) states that inappropriate development within the green belt should not be approved except in 'very special circumstances' (which will occur when harm to the green belt, and any other harm, is clearly outweighed by other considerations). Local transport infrastructure is not considered inappropriate where requirement for green belt location is demonstrated, the openness of the green belt is preserved, and where it does not conflict with the other purposes of the green belt policy. This is also in line with the *Draft National Policy Statement for National Networks* (Department for Transport, 2013).

16.3.45 As the alignment is based on the existing A14 corridor where it passes through the Cambridge Green Belt, some impact is unavoidable. The proposed infrastructure at Girton interchange would expand the extent of highway infrastructure within this part of the green belt. This use is not considered to jeopardise the objectives of the green belt given that the overall the effect on the green belt is predicted not to be significant and the impact on the openness of the green belt would be localised, as described in *Chapter 10*. It is also important to note that the area of the scheme

within the green belt follows the line of an already existing major transport route.

- 16.3.46 The alignment design and landscape mitigation proposed for the scheme aim to minimise adverse effects on the rural character and openness of the green belt as far as possible. Online sections of the scheme would have little impact on the 'openness' of the green belt. The proposed infrastructure at Girton interchange would expand the extent of highway infrastructure within a very localised part of the green belt.

Cambridge Airport

- 16.3.47 The Civil Aviation Authority produces Civil Aviation Publications (CAPs) to provide standards and guidelines for aviation safety and procedures. *CAP 772 Birdstrike Risk Management for Aerodromes* (Civil Aviation Authority, 2008) lays out a requirement for local authorities to consider bird strike when development proposals within 13km of an airport are assessed.
- 16.3.48 Though no formal sign-off from Cambridge Airport is required, Cambridge City Airport has an obligation to ensure potential aviation risks associated with birdstrike are managed and mitigated under rules enforced by the Civil Aviation Authority. Consultation in October 2014 was welcomed by Cambridge City Airport, who had no further concerns as competent consultants had been engaged to consider the issues.
- 16.3.49 *CAP 772* includes standards and recommended practices to reduce the risk of birdstrike from development in the vicinity of an aerodrome. Specifically it includes the following statement:

"The appropriate authority shall take action to eliminate or to prevent the establishment of garbage disposal dumps or any such other source attracting bird activity on, or in the vicinity of, an aerodrome unless an appropriate aeronautical study indicates that they are unlikely to create conditions conducive to a bird hazard problem."

- 16.3.50 Within the CAPs, the term "*in the vicinity*" refers to land or water within 13km of the aerodrome reference point. The phrase "*garbage disposal dumps or any such other source attracting bird activity*" includes landfill sites as defined under relevant UK legislation, and has been interpreted to also include possible change in bird activity due to borrow pit 6 and landscape areas within the aerodrome buffer zone where the potential exists for reclaimed sites to be used by birds as habitat.
- 16.3.51 *CAP 772* also states that the aerodrome operator should employ activities to control or influence areas in the vicinity of the aerodrome to minimise the attraction to birds, including the:
- establishment of a safeguarding process with the local planning authority for consultation on proposed developments that have the potential to be bird attractant within 13km of the aerodrome;
 - means to influence land use and development surrounding the aerodrome so that the birdstrike risk does not increase and, wherever possible, is reduced;

- means to help encourage landowners to adopt bird control measures and support landowners' efforts to reduce birdstrike risks; and
 - procedures to conduct, and record the results of, site monitoring visits.
- 16.3.52 As Cambridge Airport is within 13km of parts of the scheme, including borrow pit 6, a preliminary bird hazard assessment has been carried out. It is presented as a standalone report in *Appendix 16.1*, and is accompanied by *Figure 16.5* illustrating the location of the airport and the relevant buffers in relation to the scheme.
- 16.3.53 The preliminary bird hazard assessment states that an appropriate bird control management plan would be developed with the aim of ensuring that any residual risk is acceptable to Cambridge Airport. Future stages in the design process would provide more detail and allow a definitive assessment to be made on which species may use the borrow pit.

16.4 Potential impacts

- 16.4.1 This section discusses the potential impacts of the scheme for both the construction and operational phases. Section 16.5 describes mitigation measures to reduce likely effects. Section 16.6 assesses the likely residual effect of the predicted impacts having regard for the proposed mitigation.
- 16.4.2 For the purposes of representing a likely worst case scenario for the construction phase it is assumed that all scheme sections are under construction throughout the duration of the construction period for the whole scheme, with the exception of the socioeconomic assessment which assesses employment opportunities for each section of work separately. The overall assessment of effects would not change if the works were undertaken within the specific envisaged periods for each section of works as described in *Appendix 3.2*. The socioeconomic assessment takes account of employment numbers which are dependent on phasing of the works and so makes use of the envisaged construction programme presented in *Appendix 3.2*.

Construction impacts

- 16.4.3 The impacts during construction result from the construction activity itself as well as the temporary loss of land required to construct, but not operate, the proposed scheme, for example land required for materials storage or construction access. For community and private assets, the majority of impacts from the scheme would be from land take and the footprint of the scheme. These are considered to be long-term operational impacts. However they would also arise during the construction period.
- 16.4.4 During construction there could be temporary severance of access to areas of farmland, community facilities and private property as a result of construction haul routes or other construction related land uses. Although the severance would be temporary, there may be longer term effects if the viability of the assets becomes undermined through lack of use or access during the construction period.

- 16.4.5 The use of borrow pits to supply material for the scheme, as well as construction compound sites and soil storage areas, would require land and movement of material from these sites to their points of use on the scheme.
- 16.4.6 The borrow pits would be located adjacent to the scheme with the exception of borrow pit 5 (BP5) which would be located just under 1km to the south of the scheme adjacent to Boxworth. Additionally, there are borrow pits proposed near Brampton (BP1, BP2 and BP7), Fenstanton (BP3) and Bar Hill (BP6). The borrow pit locations are shown in *Figure 16.1*. Environmental impacts associated with the use and movement of materials and earth in proximity of the scheme have been considered in *Chapter 13*.
- 16.4.7 The effects of the A14 scheme design on existing utilities services and apparatus has been assessed in conjunction with the Statutory Undertakers. Where necessary, preliminary measures to divert or protect affected services and apparatus have been developed. Further details of these measures are contained in the preliminary design documentation.
- 16.4.8 There would be beneficial socioeconomic effects through additional employment in the local economy generated both directly from construction jobs, as well as indirectly from employment generated due to the increased spend from construction workers on such items as accommodation and food in the local economy. The generation of additional employment opportunities has been estimated with the use of employment multipliers, the socioeconomic section of the impact assessment has investigated this effect in more detail.

Operational impacts

- 16.4.9 The impacts during operation would arise from the permanent land take required for the long-term operation of the proposed scheme including land required for environmental mitigation such as landscape planting. The majority of land take is agricultural land from farms; this would have implications for their viability where land take is a significant proportion of the farm, or if it would cause severance or changes in access which would alter the farming operation. This particularly applies to the offline route.
- 16.4.10 Land required for the operation of the scheme would also include land taken from community facilities and private property. This would include demolition of two vacant commercial buildings and three residential buildings, two of which are occupied. Tenants of the occupied buildings have been involved with ongoing consultations and would be addressed within the compensation process. Beneficial impacts from the operational phase would include improved access to land allocated for development in local plans and planning applications.
- 16.4.11 Changes in traffic patterns could affect local communities. Severance would be relieved as a result of reduced traffic flow in Huntingdon and also in outlying villages that currently experience heavy traffic along secondary routes during rush hour periods. This would improve access to local businesses, community facilities and services. There is also the potential for traffic to be diverted away from businesses, resulting in the possibility of some loss of through-trade and adverse effects on viability.

- 16.4.12 Severance could occur as a result of the footprint of the scheme dissecting farmsteads and access routes between communities, especially along the offline section. The scheme could act as a barrier to movement between communities through traffic impacts and as a physical barrier where none was present before. Additionally, where the scheme would dissect farmsteads, farming operations could need reorganisation, especially in regards to harvest patterns and the movement of farming equipment between severed fields.

16.5 Mitigation

- 16.5.1 Mitigation measures discussed here are those which are built into the design of the scheme or which would be implemented during construction of the scheme as detailed in the code of construction practice (CoCP) (Appendix 20.2).
- 16.5.2 Mitigation will be secured by way of requirements in the DCO and through the Highways Agency placing contractual responsibilities on detailed design and construction contractors to comply with the DCO requirements and to design and construct the project providing the same level of mitigation as set out in *Figure 3.2 of the ES* and the *Register of Environmental Actions and Commitments (Appendix 20.1)*.

Agricultural land and farms

- 16.5.3 The *Thematic Strategy for Soil Protection* (European Commission, 2006) and Government thinking set out in the *First Soil Action Plan for England 2001-2006* (Defra, 2004), and subsequent *Soil Strategy for England* (September 2009) has moved away from the protection of land towards the sustainable use of soil. Whilst there is no mitigation for the loss of best and most versatile agricultural land, it is possible to mitigate the effects of the scheme on agriculturally valuable soil. Mitigation identified in this regard focuses primarily on avoidance and proper soil handling.
- 16.5.4 Where possible, the loss of agricultural land, particularly that in the best and most versatile category, would be reduced by keeping the footprint to a practical minimum and by appropriate soil handling and earth work procedures to protect fertile soils. Although the design of the scheme reduces the land take required from the best and most versatile agricultural land, due to the high quality of agricultural land in the surrounding area some loss is unavoidable. Restoration of land temporarily used for construction activities to agricultural use would occur where possible.
- 16.5.5 The quality and quantity of soil on site would be maintained by implementing appropriate techniques for stripping, storing and re-use. This approach would be adopted in a Soil management strategy (SMS), which can be found in *Appendix 12.2*, which would give practical effect to the guidance set out in as set out in the *Code of Practice for the Sustainable Use of Soils on Construction Sites* (Defra, 2009). The Agricultural Land Classification information presented in this chapter along with the SMS would inform the detailed specification and control of soil movement and restoration during construction of the scheme.

16.5.6 A number of accommodation works and mitigation measures have been identified relating to individual farm units to avoid or reduce effects. This would be implemented during the construction phase of the scheme on individual farm units as follows:

- returning land within temporary construction areas (e.g. haul road, construction compounds, etc.) back to farming in a similar condition as before;
- maintaining access to fields during construction phase;
- provision of access to severed land;
- undertaking work in accordance with the CoCP to avoid pollution of natural springs, ditches and brooks on the farm holding; and
- implementing bio-security advice and actions.

Community facilities, private property and development land

16.5.7 Effects from permanent severance and land take on community facilities, private property and development land have been reduced as far as practicable through the design process.

16.5.8 Likely effects on businesses would be mitigated by providing essential access for businesses and community facilities throughout the construction period or at least during the normal operating hours of the businesses and facilities. The use of appropriate construction phasing as well as providing adequate signage to direct traffic to businesses which stand to lose out from passing trade would also reduce negative impacts.

16.5.9 Pedestrian routes in local communities would benefit from reduced severance as new crossings are provided over the existing road way and pedestrian routes are maintained across the new sections of road. Where access is disrupted during and after construction, alternative routes would be provided. The potential mitigation of impacts on pedestrians and other travellers is discussed in *Chapter 15*.

16.5.10 During construction, mitigation measures would be applied to control noise impact of the scheme on nearby private property and community facilities, including use of noise screens and low noise equipment. During operation, the addition of substantial earth bunding and acoustic fences positioned between the scheme and properties, and the use of a low noise surfacing for the carriageway, would be implemented as appropriate. See *Chapter 14* for information on this subject.

Communities and socioeconomics

16.5.11 Permanent severance between communities has largely been designed out of the scheme though the provision of overpasses to maintain access between both sides of the route so that this effect is not likely to be significant. Effects from temporary severance during construction would be mitigated by providing essential access to community facilities throughout the construction period.

16.5.12 Although at an individual level some businesses may be adversely affected as discussed in the impact assessment of community facilities and private

property in *Table 16.12*, the overall regional socioeconomic effects from the scheme are likely to be predominantly positive due to the direct and indirect employment effects from the construction of the scheme, as discussed in the socioeconomic impact assessment (*Paragraph 16.6.17* onwards).

16.6 Significance of effects

16.6.1 This section assesses the significance of residual effects after the proposed mitigation described in section 16.5 has been implemented. Effects are considered significant where found to be 'moderate' or 'major'.

Agricultural land and farms

Agricultural land

16.6.2 *Table 16.9* summarises the land take from agricultural land by ALC grade in aggregate to indicate the agricultural land loss expected across the scheme. The table has been divided to show the three grades of agricultural land present as well as non-agricultural and urban land to be taken by the scheme. This table accounts for the DCO area of the six sections of the scheme, minus the footprint of the existing A14 and A1.

16.6.3 For the purposes of this assessment, temporary land take for the construction of the scheme has been estimated as the footprint of the soil storage and compound sites as well as borrow pit 5, as these are to be returned to agricultural use after the construction period. It is unknown whether the other borrow pits would be returned as agricultural land and so in order to consider a likely worst they are considered permanent land take.

16.6.4 The temporary land take estimate is shown in *Table 16.9* for each ALC grade. This estimate is subtracted from the permanent land take, or total footprint of the scheme minus the existing A14 and A1, to derive an estimated figure for permanent land take for the scheme overall.

16.6.5 Flood compensation areas have been included as permanent land take.

16.6.6 The overall estimated land take figures are as follows:

Table 16.9: Summary of impact on agricultural land - overall

ALC Grade	Total land take (Ha)	Temporary land take (Ha)	Permanent land take (Ha)
Grade 2	674.08	170.08	504.00
Grade 3	471.57	46.74	424.83
Grade 4	5.81	-	5.81
Non Agricultural	35.21	-	35.21
Urban	20.97	3.12	17.85
Total	1,207.64	219.94	987.7

16.6.7 *Table 16.10* disaggregates the land take for each of the six sections of the scheme by each of the ALC grades present in that section; an assessment of the significance of effect has then been based on these figures making use of the criteria presented in section 16.2.

- 16.6.8 Although areas of land are identified as being acquired for the scheme temporarily rather than permanently, for the purposes of the assessment of the overall significance of the effect of agricultural land take, all land take is considered permanent. This is the adoption of a worst case scenario as the quality of returned temporary agricultural land take is not known. In any event, the relatively small overall proportion of temporary land take to permanent land take makes it unlikely that the removal of temporary land take from the total would affect the overall assessment of likely significance of effect.

Table 16.10: Effect on agricultural land – by section

ALC grade	Total land take (Ha)	Significance of effect
Section 1		
Grade 2	8.17	Major adverse
Grade 3	66.72	
Section 2		
Grade 2	246.38	Major adverse
Grade 3	38.92	
Grade 4	5.81	
Non-agricultural	18.54	
Urban	3.98	
Section 3		
Grade 2	248.88	Major adverse
Grade 3	80.18	
Non-agricultural	2.64	
Section 4		
Grade 2	152.43	Major adverse
Grade 3	282.04	
Urban	9.3	
Section 5		
Grade 2	18.22	Major adverse
Grade 3	3.71	
Urban	6.3	
Section 6		
Non-agricultural	14.03	Negligible
Urban	1.39	

Farms

- 16.6.9 *Table 16.11* lists the farms present with their size, land take required, other impacts, such as access changes likely to require reorganisation, and finally the assessment of the residual significance of effect. Temporary land take, taken during the construction phase and to be returned to

agricultural use, has been estimated as the footprint of the soil storage and compound sites as well as borrow pit 5, as discussed above, though specific arrangements may deviate from this. Each farm unit is considered individually for the purposes of assessment. *Figure 16.4* shows land take along the scheme and contains all of the plots within the scheme boundary as listed in *Table 16.11*.

Table 16.11: Summary of effects on farms

Plot #	Farm name	Original plot (Ha)	Temporary land take (Ha)	Permanent land take (Ha)	Permanent land take (%)	Other significant impacts	Significance of effect
000a	Huntingdon Life Sciences	25.6		2.6	10%		Minor adverse
001a	Brooklands Farm West	15.2		3.4	23%	Potential change to land quality by floodplain compensation work. Change in access due to closing Woolley road.	Moderate adverse
001	Brooklands Farm	126.0	4.4	14.0	11%	Changes to field access due to closing of Wooley Road. Impacts from floodplain compensation work and soil storage.	Minor adverse
003 005 016 017 018 019 021 022	Harcourt Farm (CCC, Akzo Nobel, National Trust and RNLI)	162.2		17.2	11%	Access from east to west via the old A14 Huntingdon viaduct would be severed; access through the town with large agricultural vehicles would be necessary adding time to farming activities. Several parcels of segregated land difficult to farm.	Moderate adverse
004 010	Weybridge Farm	339.6	0.6	33.5	10%		Minor adverse
006	Lodge Farm	15.9	0	5.7	36%		Moderate adverse
008 014	Rectory Farm	35.2	8.3	12.5	36%	Access to farm added off of a new roundabout.	Moderate adverse
014a	Plot adjacent to Rectory Farm	7.5	0.3	7.0	94%		Major adverse

Plot #	Farm name	Original plot (Ha)	Temporary land take (Ha)	Permanent land take (Ha)	Permanent land take (%)	Other significant impacts	Significance of effect
024 025 026 027 028 029 030	Park Farm	178.6	20.9	93.9	53%	Significant reorganisation of farmstead would be necessary due to land take.	Major adverse
031 032	Lodge Farm	173.5	3.9	63.1	36%		Moderate adverse
043	Lodge Farm	113.9	2.5	25.2	22%	Scheme severs farm, segregating plots. Access changed requiring detour to access severed plot. Scheme runs through nature conservation lakes. Mature tree copse to be lost.	Moderate adverse
047	Northway Farm	57.5		10.4	18%	Scheme severs farm. The farm would be badly affected as far as shooting is concerned.	Moderate adverse
048 049 050	Corpus Christi Farm	267.1		7.6	3%	Farm to be bisected leaving segregated land to south.	Minor adverse
053 054	Offord Hill Farm	56.8	0.0	6.3	11%	Southern part of land holding severed. An overbridge is proposed to maintain connectivity. An access point is added off of a road to the west of the farmstead.	Minor adverse

Plot #	Farm name	Original plot (Ha)	Temporary land take (Ha)	Permanent land take (Ha)	Permanent land take (%)	Other significant impacts	Significance of effect
055 056	Home Farm	120.4	1.4	17.7	15%	Northern corner of farmstead is severed from rest. Access and farming would require reorganisation of farming practice.	Moderate adverse
058 061	Debden Top Farm	101.9		0.2	0%	Scheme severs farmstead. Access route maintained.	Minor adverse
060a	Bearscroft Farm	34.4	2.8	7.2	21%	Farm severed. Access changed.	Moderate adverse
062	Lower Debden Farm	68.2	0.2	17.1	25%	Farm severed. Access changed.	Moderate adverse
063	Depden Farm	58.4	10.2	4.0	7%	Loss of shooting interests on land as the scheme would cut off land from woodland bird cover. Route would cut off access to wider holdings so access through Huntingdon would be necessary.	Moderate adverse
064	Depden Farm	62.0	22.2	10.6	17%	Northern severed section of farm is small and poorly shaped requiring additional farming consideration, such as movement of machinery between plots.	Moderate adverse
067 068	Depden Lodge Farm	63.5	4.4	6.6	10%	Farm severed into 2 distinct parcels of land. Relatively large soil storage which may lead to soil degradation.	Moderate adverse

Plot #	Farm name	Original plot (Ha)	Temporary land take (Ha)	Permanent land take (Ha)	Permanent land take (%)	Other significant impacts	Significance of effect
069	Top Farm	115.2	6.6	10.1	9%	Farm is bisected into two parcels without direct access. New access provided. Remaining fields would be less efficient due to shape and size. Need for machinery upgrade to be roadworthy for access. Harvest and Livestock fodder, bedding and muck having to be transported on either side of road leading to more transport.	Moderate adverse
071 072	Topfield Farm	156.9	0.3	11.0	7%		Minor adverse
073	Woolpack Farm	114.3		15.2	13%		Minor adverse
074	Linton's Farm	35.7		13.9	39%	Farmstead severed, access would require major reorganisation of operations.	Major adverse
076	Oxholme Farm	51.5	1.3	28.6	56%	Farm halved by the scheme. This is one of the few Owner/Farmer holdings on the route and therefore considered to be a greater sensitivity. The scheme would greatly reduce the viability of the farm as the holding would be divided diagonally in half, to the point it may no longer be viable.	Major adverse

Plot #	Farm name	Original plot (Ha)	Temporary land take (Ha)	Permanent land take (Ha)	Permanent land take (%)	Other significant impacts	Significance of effect
078	West End Farm	92.3	1.0	23.9	26%	Most of the land is already excavated for gravel and now managed privately for nature conservation. Loss from borrow pit would take the majority of the remaining arable land.	Major adverse
079	Gables Farm	82.0	2.9	33.6	41%	Farm cut in half, access to severed portion to requires rerouting of farming patterns.	Major adverse
082 084 085 088	Model Farm Mount Farm Red Hill Farm	96.3	0.6	16.2	17%	Small existing field pattern would be further broken up by road scheme into some inefficient field areas. Farm severed, access provided via overpass, some reorganisation likely necessary.	Moderate adverse
093 094	Marshall's Farm	109.7	2.0	21.1	19%	Bisected by road scheme. Field access maintained via New Barns Lane bridge, but field size and shape would make farming more difficult and adjustments would have to be made.	Moderate adverse
101	New Barns Farm and Brickyard Farm East	129.2		38.2	30%		Moderate adverse
102 104	Friesland Farm	28.9		3.7	13%		Minor adverse

Plot #	Farm name	Original plot (Ha)	Temporary land take (Ha)	Permanent land take (Ha)	Permanent land take (%)	Other significant impacts	Significance of effect
103 108 125	Boxworth End Farm	138.5		13.1	9%		Minor adverse
105 106	Thomas Galon Charity	25.8		3.1	12%		Minor adverse
107	New Barns Farm and Brickyard Farm West	104.7	9.5	21.0	20%	Access points added off of a service lane along A14.	Minor adverse
128	Boxworth Farm	63.2	43.8	17.1	27%	Large borrow pit likely to affect quality of farm and would lead to temporary loss of whole farm.	Major adverse
130	Clare College Farm and Grange Farm	227.3	11.2	18.2	8%	Three fields to the west have access lost from A14, require access change.	Minor adverse
132	Hill Farm	94.7	1.9	6.6	7%	Change to access, off of a service road.	Minor adverse
133	Noon Folly Farm	59.5		8.7	15%	New access lane added on north side of Bar Hill Junction.	Minor adverse
135 141	Hazlewell Farm Slate Hall Farm	144.7	2.2	24.5	17%	New access point added along access lane adjacent to A14.	Minor adverse
142 144	Slate Hall Farm	29.5	6.2	23.3	79%	Access off of access lane adjacent to A14. Site of borrow pit.	Major adverse
143	Hacker's Fruit Farm	14.0		5.0	36%		Moderate adverse

Plot #	Farm name	Original plot (Ha)	Temporary land take (Ha)	Permanent land take (Ha)	Permanent land take (%)	Other significant impacts	Significance of effect
145	Scotland Farm	44.6		4.5	10%	Eastern portion of farmstead is severed by minor road.	Minor adverse
147	Poplar Farm (St John's College)	63.2	0.3	20.6	33%		Moderate adverse
148	Grange Farm	70.5		6.7	10%		Minor adverse
149	Townlands Trust	2.7		0.5	16%		Minor adverse
150	Catch Hall	70.0	4.4	25.7	37%		Moderate adverse
152 155 156 157 158	Trinity College (Moors Barn Farm)	84.9	7.9	29.3	35%	Scheme severs the plot significantly changing layout and accessibility.	Major adverse
153	University of Cambridge	16.0		3.9	24%		Minor adverse
164 165	St John's College	30.0		8.0	27%		Moderate adverse
169	Sunlight Services	6.6	1.1	0.5	8%		Minor adverse
186	Garden House Properties	16.9		1.2	7%		Minor adverse

Plot #	Farm name	Original plot (Ha)	Temporary land take (Ha)	Permanent land take (Ha)	Permanent land take (%)	Other significant impacts	Significance of effect
209 210 225 226	Freeman's Charity of Huntingdon (including Mill Common and View Common)	21.9		7.0	32%	While not farmland it is used for grazing. Access point added to east of plot. Major reorganisation of plot due to addition of roundabout and detrunking of A14 removes existing severance while also subjecting plot to land take. On balance the improved access is likely to outweigh the loss of land in facilitating use of this pasture.	Minor beneficial

Community facilities, private property and development land

16.6.10 *Table 16.12* provides a summary of likely effects on community facilities and private property. The assessment describes residual effects after proposed mitigation. Assets have not been listed where the effect is likely to be negligible. *Figure 16.2* shows the location of community facilities and private property assets.

Table 16.12: Summary of effects on community facilities and private property

Receptor	Nature of impact	Sensitivity of receptor	Magnitude of impact	Significance of effect
Community facilities				
Offord and Buckden Angling Society	The scheme would cross the river Great Ouse at a point where the 250 member society has fishing rights, which may cause disturbance to the ability to fish at this point.	Medium	Low (negative)	Slight adverse
Cambridge Services	Access to be maintained through new layout, loss of approximately 20% of potentially developable property along verge.	Medium	Low (negative)	Moderate adverse
Cambridge City Crematorium	New access route would lead to slight improvement in ease of access.	High	Low (positive)	Slight beneficial
Cambridgeshire Constabulary HQ	New road to pass behind Constabulary which would result in a loss of approximately 20% of the property including car park and workshop building.	High	Medium (negative)	Moderate adverse
Huntingdon Fire Service	New layout may increase traffic at access point.	High	Low (negative)	Slight adverse
Golf courses				
Hemingford Abbot Golf Club	The viability of the golf club as a business may benefit from reduced lorry traffic along the existing A14 resulting in improved amenity for golfers and potentially increased patronage.	Medium	Low (positive)	Slight beneficial
Menzies Cambridge Hotel and Golf Course	Negative amenity impact during construction may be sufficient to reduce patronage affecting business viability.	Medium	Low (negative)	Slight adverse

Receptor	Nature of impact	Sensitivity of receptor	Magnitude of impact	Significance of effect
Community land				
Westside Common	Reduction of traffic along former A14 may improve access to park.	Medium	Low (positive)	Slight beneficial
Bar Hill Parish Council land at Bar Hill Junction	Land take to be returned to council but a change in the layout of the green field is possible.	Low	Low (negative)	Slight adverse
Trinity College wood	Whole of wooded plot to be lost to land take.	Low	High (negative)	Moderate adverse
Residential property				
Grafham Cottages, Buckden	Demolition of two cottages.	High	High (negative)	Major adverse
Kasauli, Buckden	Residential property, access along Brampton road impacted by A14 exit across the street.	High	Low (negative)	Slight adverse
Hill Rise, Buckden	Residential property, access along Brampton road impacted by A14 exit across the street.	High	Low (negative)	Slight adverse
Orchard View, Buckden	Residential property, access along Brampton road impacted by A14 exit across the street.	High	Low (negative)	Slight adverse
Wayside, Boxworth	Residential property to be demolished.	High	High (negative)	Major adverse
Hill Farm Cottages, Lolworth	Residential property to lose approximately 10% of plot.	High	Low (negative)	Slight adverse

Receptor	Nature of impact	Sensitivity of receptor	Magnitude of impact	Significance of effect
Western of three properties between Huntingdon railway station car park and existing A14, Huntingdon	New access road to pass in front of property creating severance with rest of neighbourhood and green space to south of road.	High	Low (negative)	Slight adverse
Central of three properties between Huntingdon railway station car park and existing A14, Huntingdon	New access road to pass in front of property creating severance with rest of neighbourhood and green space to south of road	High	Low (negative)	Slight adverse
Eastern of three properties between Huntingdon railway station car park and existing A14, Huntingdon	New access road to pass in front of property creating severance with rest of neighbourhood and green space to south of road	High	Low (negative)	Slight adverse
Businesses				
Buckingway Business Park (multiple commercial tenants)	Improvement to access.	Medium	Low (positive)	Slight beneficial
Whippet Coaches Station	Improvement to access.	Medium	Low (positive)	Slight beneficial
Landro	Impacts from de-trunking of the A14 where raised above property likely to be minimal, although some land take from the property to occur.	Low	Low (negative)	Minor adverse

Receptor	Nature of impact	Sensitivity of receptor	Magnitude of impact	Significance of effect
Barker Storey Matthews	Loss of land, currently a car park but with development potential.	High	High (negative)	Major adverse
Landmans Portaloos	Potentially would lose small area on edge of property.	Medium	Low (negative)	Slight adverse
Goff Petroleum Site	To lose over 30% of property, this may be detrimental to plans for a fuel transfer depot.	Medium	Medium (negative)	Moderate adverse
Service stations and garages				
Little Chef KFC and Service Station at Fenstanton	Reduced business possible due to change in traffic patterns.	Medium	Medium (negative)	Moderate adverse
Little Chef, Lolworth	Improvement to access but small loss of land on edge.	Medium	Low (negative)	Slight adverse
Mason's Garage	Improvement in safety of access.	High	Low (positive)	Slight beneficial
Shell Station, Godmanchester	Reduced business possible due to change in traffic patterns.	Medium	Medium (negative)	Moderate adverse
Hotels				
Travelodge, Fenstanton	Possible reduction in number of customers due to reduced traffic flow, though improvement in amenity due to diverted traffic may improve appeal to guests somewhat.	Medium	Low (negative)	Slight adverse

Receptor	Nature of impact	Sensitivity of receptor	Magnitude of impact	Significance of effect
Leisure and recreational businesses				
Crystal Lakes Leisure Centre	Slight amenity benefit in reducing traffic in this outdoor activity area.	High	Low (positive)	Slight beneficial
Equestrian and animal shelters				
Wood Green Animal Shelters	Impact possible due to traffic which may disturb animals or require them to be moved.	Medium	Low (negative)	Slight adverse
Landfill, waste and recycling sites				
Buckden Landfill Site (Aggregate Movements Ltd.)	New scheme layout north of Buckden may make landfill a more attractive repository of materials via access from the new A14.	Low	Low (positive)	Slight beneficial
Utilities				
Network Rail and First Capital Connect	Losses of approximately 25% of verge land to land take.	High	Medium (negative)	Minor adverse
Anglian Water	Losses of approximately 15% of property to land take.	High	Low (negative)	Slight adverse
Public houses				
King William IV, Fenstanton	Less patronage possible due to change in traffic patterns, though most customers likely to be local.	Medium	Low (negative)	Slight adverse
Vacant and unused				
Area of Gravel Pits (west of river Great Ouse)	Loss of nature conservation value and informal fishing due to scheme severing of lake area.	Medium	Medium (negative)	Moderate adverse
Trinity Foot	Vacant pub to be demolished.	Low	High (negative)	Moderate adverse

Receptor	Nature of impact	Sensitivity of receptor	Magnitude of impact	Significance of effect
Eyre and Denison	Vacant land, to be fully lost to scheme footprint.	Low	High (negative)	Moderate adverse
Total UK	Vacant land, to be fully lost to scheme footprint.	Low	High (negative)	Moderate adverse
David Ball Group	Vacant building to be demolished near Bar Hill Junction.	Low	High (negative)	Moderate adverse

Development land

16.6.11 The significance of effects on development land is summarised in *Table 16.13*. In most cases the effects would be beneficial as a result of improvements to access during the operation of the scheme. *Figure 16.3* shows the location of development applications and planning allocations.

Table 16.13: Summary of effects on planning applications and development plans

Receptor (object / application ID)	Impact on development viability	Significance of effect
Planning applications		
34041	<i>Erection of 14 residential units</i> Improved access for residents as a result of improvements at Huntingdon.	Beneficial
33405	<i>Change of use of caretaker's bungalow to office use for site maintenance staff. Provision of additional car parking spaces</i> Improved access for maintenance staff as a result of improvements at Huntingdon.	Beneficial
1400263FUL	<i>Change of use of offices to residential forming 5 units including removal of external escape staircase.</i> Improved access for residents as a result of improvements at Huntingdon.	Beneficial
1400102FUL	<i>Fourteen new flats and associated external works.</i> Improved access for residents as a result of improvements at Huntingdon.	Beneficial
36765	<i>Erection of three dwellings and access following demolition of existing</i> Improved access for residents as a result of improvements at Huntingdon.	Beneficial
126171	<i>Change of use to A1 Retail</i> Improved access for residents as a result of improvements at Huntingdon.	Beneficial
37151	<i>Proposed change of use from retail to retail and/or residential development.</i> Improved access for residents as a result of improvements at Huntingdon.	Beneficial
111466	<i>Proposed use of B1 office and associated car park site for residential development</i> Improved access for residents as a result of improvements at Huntingdon.	Beneficial

Receptor (object / application ID)	Impact on development viability	Significance of effect
101818	<i>Redevelopment to include 402 dwellings; community building (425 square metres); retail use (500 square metres); business (B1) floor space (7125 square metres) and associated highway improvements</i> Improved access for residents and customers at the A14 Huntingdon bypass.	Beneficial
127768	<i>Wind turbine (73 metre hub height, 100 metre blade tip height, 500kW maximum output) with associated access road, crane platform and transformer kiosk.</i>	Neutral
32100	<i>Proposed siting of mobile home.</i> Site would likely not be useable for this purpose as the scheme footprint intersects the property.	Adverse
1400283FUL	<i>Provision of sports pavilion.</i> Improved access for spectators at the A14 Huntingdon bypass.	Beneficial
S/0141/11	<i>Extension of time limit for implementation of planning consent S/0303/08 for the Erection of 15 Units (including 9 Terraced) with Ancillary Offices, Service Yards, Car Parking and Landscaping and the Erection of 4 Terraced Office</i> Loss of approximately 10% of plot to land take.	Adverse
S/2551/12/FL	<i>Change of use from Storage or Distribution to General Industrial installation of a waste paper compactor plant unit to the front forecourt.</i>	Neutral
S/1778/10	<i>12 x Extra Care Apartments</i>	Neutral
S/1191/11	<i>Erection of three storey building for student accommodation (50 rooms) including new gym facilities, rebuilding and alterations to the existing swimming pool, alterations to the squash court building, minor alterations to existing buildings.</i>	Neutral
S/2438/12/E1	<i>Environmental Impact Assessment Scoping Opinion for NIAB2, 1,100 homes and associated infrastructure.</i>	Neutral
S/0174/14/FL	<i>Formation of a Landscaped Mound adjacent to and south of the A14 to be formed from excess spoil from the Darwin Green One development.</i> Loss of approximately 5% of plot to land take.	Adverse
S/2064/13/RM	<i>Reserved matters application for 79 dwellings and associated infrastructure and landscape following the outline approval of S/2559/11</i>	Neutral

Receptor (object / application ID)	Impact on development viability	Significance of effect
S/2559/11	<i>Site for the erection of 112 dwellings, including vehicular access and Construction of a mixed use building involving 7 retail units (840sqm) and 28 flats, (2, 1 bedroom and 26, 2 bedroom) including landscaping and open space.</i>	Neutral
S/0710/11	<i>Erection of 34 Dwellings and Associated Infrastructure.</i>	Neutral
S/1923/11	<i>Erection of 16 dwellings together with roads, sewers and ancillary works</i>	Neutral
S/0179/13/OL	<i>Erection of three buildings totalling 13,800m2 at Phase VI of Cambridge Science Park.</i>	Neutral
S/0303/10/F	<i>Erection of 296 bedroom hotel following demolition of existing health club and Offices. Change of use of existing Trinity Centre to hotel facilities with connection to hotel for associated restaurant, bar and meeting rooms.</i>	Neutral
S/2347/12/FL	<i>Extensions to existing building to provide additional floor space (including plant at ground and first floors); demolition of existing outbuildings and erection of replacement outbuilding. Loss of approximately 5% of plot to land take.</i>	Adverse
S/1510/12/FL	<i>Erection of office and associated parking and landscaping.</i>	Neutral
S/1261/10	<i>Change of use of land to Nature Reserve, installation of education buildings, access track and toilet compound and car/coach parking area and erection of pond dipping platform and 3 viewings shelters. At site to north of Fen Drayton. Approved.</i>	Neutral
Development plans		
Alconbury Weald	The scheme would reduce traffic along the current portion of the A14 which allows access from this development site to Huntingdon improving access. The Huntingdon bypass would also allow better access to the wider Cambridgeshire region from the site.	Beneficial
Northbridge	Development on the north-west edge of Huntingdon would likely benefit from reduced through traffic on the existing A14 due to the presence of the scheme's Huntingdon bypass.	Beneficial
Huntingdon West	Development is likely to benefit from the de-trunking of the A14 (Section 6) through Huntingdon and improved access via the local road improvements around Hinchbrook.	Beneficial

Receptor (object / application ID)	Impact on development viability	Significance of effect
RAF Brampton	Development at this site would benefit from improved access to Cambridge and eastern Cambridgeshire though some negative amenity effect is possible from the proximity of the scheme to the southern edge of the development.	Neutral
Bearscroft Farm	Development to the east of Godmanchester would likely benefit from reduction of traffic on current A14 to north of development.	Beneficial
Northstowe	Access off of the A14 at Bar Hill would likely lead to an improvement in access to this development in the vicinity of Longstanton, the scheme would enable Northstowe phase 2 (3,500 dwellings) to proceed.	Beneficial
Bourn Airfield	Development lies several kilometres off of the scheme to the south-west of Bar Hill and is unlikely to be significantly affected.	Neutral
North West Cambridge Development	Development to the north-west of Cambridge would benefit from improved access at the Girton Interchange.	Beneficial
Darwin Green	Development land lies to the south of the online portion of the scheme and is unlikely to be significantly affected.	Neutral
Orchard Park	Widening off online section of A14 on the northern side of Cambridge to north of development is unlikely to affect the viability of the development.	Neutral
Cambridge Northern Fringe East	Development lies at the eastern terminus of the scheme and is unlikely to be significantly affected.	Neutral
University of Cambridge West Cambridge Site	Development site to the west of Cambridge, it is unlikely to be significantly affected.	Neutral
Cambridge East	Development lies to the east of Cambridge at the site of the airport and is unlikely to be significantly affected.	Neutral
Land North of Waterbeach	Development is several kilometres to the north of the online portion of the scheme around Cambridge and is unlikely to be significantly affected.	Neutral

Community and socioeconomics

Community severance

- 16.6.12 The severance effects on settlements are described in *Table 16.14* below. It is noted that, in general, settlements along online portions of the scheme are not likely to experience additional adverse effects. Settlements along the offline portions to the north of the scheme are also unlikely to experience significant adverse effects as access to the larger community of Huntingdon is not compromised, while settlements to south are also unlikely to experience significant adverse effects due to the provision of overpasses.
- 16.6.13 Haulage routes during construction may cause temporary inconvenience, but are not thought to be enough in number to lead to any significant additional severance, with the possible exception of those from borrow pit 5, which is larger than the other borrow pits and is expected to generate more haulage traffic in proximity to Boxworth. Conington, Hilton, Buckden and Offord Cluny and Offord D'Arcy are likely to experience slight adverse effects due to the scheme acting as a barrier to movement towards Huntingdon, though due to the provision of overpasses along the route this effect is not thought to be significant.
- 16.6.14 When the scheme is in operation, traffic would be diverted onto the new offline section of the A14 which would result in reductions in traffic levels on the existing local road network and the current A14 route. This would provide relief from existing severance issues between communities and community facilities by easing congestion and reducing hazards. In addition, the de-trunking of the A14 in Huntingdon would ease severance within the town.
- 16.6.15 On the online section between Fen Drayton and Milton the scheme would provide improved access between existing community facilities along the A14 corridor and to Cambridge via the route improvements.
- 16.6.16 According to traffic data, of roads which meet the minimum threshold of 8,000 AADT, the three stretches of the current A14 between Alconbury and Huntingdon, between Brampton Hut and Huntingdon, and between Fen Drayton and Godmanchester, would have a traffic reduction by 60% to 75%, while the stretch of the A1 from Alconbury to Brampton Hut would have a traffic increase of more than 90%.

Table 16.14: Summary of effects on community severance

Settlement	Population	Severance effects	Assessment of effect
Alconbury	1,569	Traffic along the A1 south from Alconbury is likely to substantially increase, while the A14 southbound to Huntingdon is likely to have a moderate decrease in traffic. The overall effect is expected to be neutral.	Negligible

Settlement	Population	Severance effects	Assessment of effect
Ellington	585	Traffic from Brampton Hut to Huntingdon is likely to moderately decrease, relieving severance between Ellington and Huntingdon.	Slight beneficial
Huntingdon	23,732	The scheme would break the continuous movement of traffic through Huntingdon via the de-trunking works thus reducing existing severance caused by the A14 through the town centre, traffic northbound and southbound on the current A14 is likely to moderately decrease.	Slight beneficial
Brampton	4,862	A reduction in traffic on the main roads around Brampton would reduce existing severance in access to Huntingdon, though traffic northbound along the A1 may substantially increase.	Slight beneficial
Godmanchester	6,711	Local roads and A14 likely to experience a moderate reduction in traffic which may provide relief from existing severance for users of these roads.	Slight beneficial
Buckden	2,805	The scheme acts as a barrier to accessing the facilities around Huntingdon which may be a deterrent to local residents; however, the road to Brampton is maintained via an overpass therefore the overall effect is likely to be minimal.	Slight adverse
Offord Cluny and Offord D'Arcy	1,341	The scheme acts as a barrier to accessing the facilities around Huntingdon which may be a deterrent to local residents; however, the road to Godmanchester is maintained via an overpass therefore the overall effect is likely to be minimal.	Slight adverse
Hilton	1,052	The scheme acts as a secondary barrier which may be a deterrent to local residents; however, the road to Fenstanton is maintained via an overpass therefore the overall effect is likely to be minimal.	Slight adverse
Fenstanton	3,087	Traffic along the current A14 to Huntingdon likely to moderately decrease improving access.	Slight beneficial
Conington	209	The scheme acts as a secondary barrier which may be a deterrent to local residents; however, the road to Fenstanton is maintained via an overpass therefore the overall effect is likely to be minimal.	Slight adverse

Settlement	Population	Severance effects	Assessment of effect
Fen Drayton	856	Traffic along the current A14 to Huntingdon likely to moderately decrease improving access.	Slight beneficial
Swavesey	2,463	No significant severance effects are expected.	Negligible
Boxworth	218	Due to its large size borrow pit 5 is a significant presence in close proximity to Boxworth, increased congestion during the construction phase may cause severance issues as regards access to the A14 from this location.	Moderate adverse
Lolworth	155	Online – temporary disruption during construction likely.	Slight adverse
Longstanton	2,657	Online – temporary disruption during construction likely.	Slight adverse
Bar Hill	4,032	Online – temporary disruption during construction likely.	Slight adverse
Dry Drayton	643	Online – temporary disruption during construction likely.	Slight adverse
Oakington	1,527	No significant severance effects are expected.	Negligible
Madingley	210	Online – temporary disruption during construction likely.	Slight adverse
Girton	4,559	No significant severance effects are expected.	Negligible
Histon	4,665	Online – temporary disruption during construction likely.	Slight adverse
Impington	4,060	Online – temporary disruption during construction likely.	Slight adverse
Cambridge	123,867	Online – temporary disruption during construction likely.	Slight adverse
Milton	4,697	Online – temporary disruption during construction likely.	Slight adverse

Socioeconomics

- 16.6.17 The socioeconomic assessment below has focused on the employment effects from the construction period of the scheme. The direct and indirect employment created as a result of the scheme will be the predominant local socioeconomic impact. Locally, investment in the scheme would predominantly be on labour, approximately a quarter of which is expected to be directly sourced from within Cambridgeshire, with a further third sourced from existing capacity which may be based within Cambridgeshire. Spend in addition to labour would include aggregate materials, which are largely expected to be sourced from within the area of the scheme itself, and equipment, which is expected to mostly be sourced from outwith Cambridgeshire.
- 16.6.18 Wider economic impacts are addressed in the economic assessment of the *Case for the Scheme*, while the assessment of human health impacts (*Appendix 18.1*) considers further broad socioeconomic factors. In summary, the economic assessment for the *Case for the Scheme* finds that the scheme is forecast to deliver significant economic benefits associated with reduced travel times together with greater journey time reliability and wider impacts associated with economic activity and business growth.
- 16.6.19 Business users and transport service providers would significantly benefit from the scheme as reduced travel times improve access to suppliers or customers and reduce vehicle operating costs such as fuel, vehicle maintenance and mileage-related depreciation. The combined value of these benefits is forecast to be £1 billion over a 60-year appraisal period.
- 16.6.20 Additional capacity delivered by the scheme would also benefit business users and transport service providers by providing greater journey time reliability. The monetised value of greater journey time reliability for business users and transport service providers is forecast to be £435 million over a 60-year appraisal period.
- 16.6.21 Congestion and delay on the A14 currently constrains future business growth. The scheme would help to unlock economic activity and contribute to wider benefits forecast to be £77 million over a 60-year appraisal period through greater productivity through the concentration of economic activity (agglomeration), tax revenues arising from an increase in employment and profits generated as a result of reduced transport costs.
- 16.6.22 Additionally, the *Case for the Scheme* also finds that the scheme would make a significant contribution to the local economy by unlocking local housing constraints, notably in relation to enabling phase 2 of the proposed 10,000 home development at Northstowe. The scheme would also contribute to improved connectivity between Cambridge and other economic centres which would contribute to economic benefits in terms of wider business and employment growth.
- 16.6.23 The socioeconomic assessment presented below focuses on the local employment effects of the construction of the scheme. The construction phase of the scheme would be expected to generate between 6,285 and 7,975 person years of construction employment across all six work sections. Once the estimated construction period between 2016 and 2021

is taken into account, this equates to between 2,530 and 3,520 individual jobs.

- 16.6.24 This analysis has been based on the capital cost estimates derived for the A14 scheme, estimated as £1,237.5 million as of the DCO submission date. To determine the potential job creation of the construction project, the construction cost estimate has been divided by £149,000 and £189,000. These figures represent the annual revenue in the construction of roads and motorways per worker (2008 data), and the annual revenue in the Civil Engineering sector as a whole per worker (2012 data). These figures are from the *Office for National Statistics' (ONS) Annual Business Survey 2012* (Office for National Statistics, 2014).
- 16.6.25 Over the course of the six year construction period, the number employed on the project would vary. The expected number of jobs in a given year is presented in *Table 16.15* below. The assessment has been based on the profile estimated for the construction scenario developed for the scheme which is consistent with the information provided within in *Appendix 3.2*. This approach ensures that construction labour requirements are not double counted by assuming section based rather than simultaneous phasing. Thus the job creation estimates assume transferability of labour across section phasing and represent a likely worst case scenario in terms of overall employment.
- 16.6.26 The methodology considers the construction requirements for the six sections of the scheme described in brief in paragraphs 16.3.7 to 16.3.12 and in more detail in *Chapter 3* to estimate the number of jobs that would be supported across the full construction period.

Table 16.15: Summary of expected jobs directly employed by the scheme, by year and section

	2016	2017	2018	2019	2020	2021
Section 1	151 - 191	151 – 191	0	0	0	0
Section 2	0	503 – 638	503 – 638	503 – 638	0	0
Section 3	0	799 – 1,013	799 – 1,013	799 – 1,013	0	0
Section 4	503 – 638	503 – 638	503 – 638	503 – 638	0	0
Section 5	0	0	377 – 479	377 – 479	0	0
Section 6	0	0	0	0	201 - 255	201 - 255
Total	654 – 829	1,956 – 2,481	2,182 – 2,768	2,182 – 2,768	201 – 255	201 – 255

- 16.6.27 Not all of these jobs would be additional to Cambridgeshire, as some jobs may be displaced from elsewhere while others would be filled by people from outside the local area. In order to convert the estimated number of gross jobs into net additional jobs for Cambridgeshire, an allowance must be made for deadweight, displacement and leakage. In addition, the potential for indirect and induced jobs has been assessed.

- 16.6.28 Deadweight is defined as the proportion of total outputs/outcomes that would have been secured without the scheme. It is what is expected to happen in the absence of the scheme going ahead. In this case it assumes that the A14 would remain as it is, and no other road improvements in the area would come forward in its place. It has therefore been assumed that no new jobs would be provided in the absence of the scheme. Therefore, deadweight is not relevant in this case.
- 16.6.29 Displacement is defined as the proportion of employment associated with a development that reduces employment elsewhere in the area, thus displacement refers to employment which has merely transferred from one place to another rather than through the creation of a new job. For this project, during the construction phase displacement is expected to operate via the labour market. By employing workers who would otherwise be available to other local employers the local labour market is tightened. This may make it more difficult for other employers to find workers who meet their particular needs and so reduces employment elsewhere in the local economy.
- 16.6.30 In line with guidance from the *Additionality Guide* (English Partnerships 2008) the level of displacement has been assessed. While it is not thought that any other major highways works would occur in the area, it is acknowledged that the level of employment required for this project exceeds local construction capacity. As this may draw employees from other, non-highways projects then the assessed displacement is expected to be Medium, “*About half of the activity would be displaced*”. The displacement effect has therefore been assumed to be 50%.
- 16.6.31 In line with guidance from the *Additionality Guide* (English Partnerships 2008) the level of leakage has also been assessed. Leakage is defined as the proportion of outputs that benefit those outside the study area; in this case that would be jobs that are sourced outside of Cambridgeshire. Neither the existing construction industry in Cambridgeshire nor the pool of unemployed labour within Cambridgeshire would be fully sufficient to supply the labour demands of this project. It may therefore draw workers from other regions.
- 16.6.32 The assessed leakage is expected to be Medium to High, so “*A reasonably high proportion of the benefits will be retained within the target area*” or “*Many of the benefits will go to people living outside the area*”. The leakage effect has therefore been assumed to be 25–50%.
- 16.6.33 Indirect employment is created as suppliers increase activities, and hire new workers to supply the inputs for the additional goods and services required for the project. Induced impacts occur as construction workers and the suppliers’ employees create further demand in the local economy via their spending on local goods and services.
- 16.6.34 In order to calculate these local indirect and induced impacts, the *Additionality Guide* suggests multipliers of 1.3, 1.5 and 1.7 at the Regional level, dependant on the assessed level of linkage, or the potential for one economic sector to provide the necessities of other sectors.

- 16.6.35 In this case, an assessment of below average levels of linkages has been considered appropriate, and there for the use of a multiplier of 1.3. This is due to Cambridgeshire's economy not being highly geared towards construction and civil engineering projects, with evidence that the proportion of those working in construction is significantly lower than the regional and national averages, thus supporting economic sectors are also likely to be small.
- 16.6.36 Taking account of displacement and leakages in the workforce, and multipliers to incorporate direct and induced spend, it has been estimated that the net number of job years that would be captured within the Cambridgeshire region is between 2,043 and 3,888. Taking into account the construction periods, by factoring each sections total job years by the length of time that section would be worked on, this equates to between 824 and 1,567 additional jobs in the region as a result of the scheme.
- 16.6.37 *Table 16.16* below summarises the findings of the socioeconomic employment assessment.

Table 16.16: Total project employment estimates

	Factor used	Job-years	Jobs
Construction cost	£1,237,500,000		
Gross jobs	£149,000 – 189,000 per job-year	6,287 – 7,975	2,534 – 3,214
Deadweight, displacement and leakage	Deadweight: 0% Displacement: 50% Leakage: 25 – 50%	4,715 – 4,984	1,901 – 2,009
Multiplier impact	1.3	472 - 897	190 - 362
Net local additional jobs		2,043 – 3,888	824 – 1,567

16.7 Summary and conclusion

- 16.7.1 *Table 16.17* briefly summarises the overall effects of the scheme on community and private assets. These findings should be set in context of the scheme objectives are to deliver increased economic growth by enhancing major residential and commercial developments; to connect people by placing the right traffic on the right roads and freeing up local capacity for all road users; and to create a positive legacy for local communities and businesses.

Table 16.17: Summary of the likely significant effects of the scheme on community and private assets

Receptor group	Significance of overall effects
Agricultural land	The overall effect on agricultural land is major adverse as overall approximately 1,000ha of predominantly high grade land is to be lost as a result of the scheme.
Farms	30 farm units are significantly adversely affected by the scheme with the overall effect likely to be moderate adverse.
Community facilities and private property	Community facilities and private property are affected in a varied way, but overall at a scheme wide level the effect is not a level considered to be significant.
Development land	The effect on development is likely to be beneficial overall as the scheme would improve access to as yet unbuilt planning allocations.
Community severance	Community severance is likely to not be significant overall as both beneficial and adverse effects are likely to be slight and to balance at the scheme wide level.
Socioeconomics	The regional economy would benefit from the creation of 800 to 1,600 additional jobs to the local region during construction of the scheme.

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