The Cambridge South East Transport Order

Transport And Works Act 1992

Transport And Works (Applications And Objections Procedure) (England And Wales) Rules 2006

ENVIRONMENTAL STATEMENT
ADDENDUM

Document Reference	CD1-10.02.
Revision Number	01
Applicant	Cambridgeshire County Council
Date	November 2026

AtkinsRéalis

The Cambridge South East Transport Phase 2

Transport and Works Act Order

04 November 2026

ENVIRONMENTAL STATEMENT ADDENDUM

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This document has 87 pages including the cover.

Document history

Revision	Purpose description	Originated	Checked	Reviewed	Authorised	Date
Rev 0	Draft	JB	RS	DP	EK	04/06/2026
Rev 1	Draft	JB	RS	DP	EK	26/06/2026
Rev 2	Final	Multiple	RS	DP	EK	04/11/2026

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1. Introduction

1.1 Purpose of the Environmental Statement Addendum

1.1.1 This Environmental Statement (ES) Addendum has been prepared to support three proposed design changes to the Cambridge South East Transport Phase 2 Scheme (herein referred to as the Scheme) in respect of an application for an Order under the Transport and Works Act 1992 and updates to the assessments for water quality, groundwater, biodiversity and landscape and visual impact. The original ES (CD1-10.02) and associated appendices (CD1-10.03 to CD1-10.58 inclusive) provide a comprehensive assessment of the likely significant environmental effects of the Scheme in accordance with The Transport and Works (Applications and Objections Procedure) (England and Wales) Rules 2006 (as amended) (the TWA Rules).

1.1.2 This ES Addendum provides an update to the original ES and associated appendices (CD1-10.03 to CD1-10.58 inclusive), taking into account three proposed design changes. Due to the passage of time since the original ES was produced, new information has come to light that requires the update of some of the environmental assessments including water quality, groundwater, biodiversity. The landscape and visual impact assessment has also been updated. These findings from the updated assessments are reported in this ES Addendum.

1.2 Legal context

1.2.1 The Scheme is being promoted under the Transport and Works Act 1992 (TWA) and is therefore subject to the requirements of the TWA Rules. The Environmental Impact Assessment (EIA) for the Scheme has been undertaken in accordance with Rule 7A of the TWA Rules, which requires that an ES is prepared.

1.2.2 In accordance with section 13B of the TWA, before determining an application for a Transport and Works Act Order (TWAO) for development requiring an EIA, the Secretary of State must consider the EIA information and must reach a reasoned conclusion about the likely significant effects of the proposed works or project on the environment. The reasoned conclusion must be taken into account in determining the application and when doing so, the Secretary of State must be satisfied that the reasoned conclusion is up to date.

1.2.3 In response to ongoing consultation and engagement with affected landowners and utilities, the Applicant proposes three changes to the design of the Scheme. This ES Addendum has been produced to provide the relevant additional environmental information required in order for the Secretary of State to come to a reasoned conclusion about the likely significant effects of the Scheme as amended. This ES Addendum also provides additional information on the effects of dewatering during construction which were not assessed in the original ES, a new biodiversity assessment on a designated site that was designated after the original desk study was undertaken, an updated landscape and visual assessment, and an updated cumulative effects assessment.

1.3 Additional environmental information

1.3.1 Three design changes are proposed to the Scheme as follows:

- Change request 1: Extension of the Order limits to allow (i) a short diversion of the existing Pipeline where the busway crosses the Pipeline and (ii) protective works over the existing Pipeline running alongside the proposed Travel Hub, as well as amendments to the layout of the proposed Travel Hub and reconfiguration of the highway arrangements at the A1307 Cambridge Road to provide a signalised junction in place of a roundabout (within Work Nos. 9, 10 and 11)
- Change request 2: Reduction in the Order limits, realignment of the cycle track and private means of access and amendments to the ecology ponds near Hobsons Conduit (within Work No.3)
- Change request 3: Reduction of the Order Limits in the Stapleford area (within Work Nos. 6 and 7)

1.3.2 This ES Addendum provides, a description of each of the changes, and an assessment of the potential likely significant effects. The changes have resulted in amendments to the Order Limits so the Biodiversity Net Gain assessment has been updated.

1.3.3 In addition to the above three changes, new information is provided on the construction of the Hobson's Conduit crossing, and the two River Granta crossings which result in potential effects that were not assessed in the original ES due to groundwater abstraction. New information is also provided on the effects of the Scheme on Hobson's Park County Wildlife Site (CWS) which was designated after the original desk study was undertaken.

1.3.4 The landscape and visual impact assessment and cumulative effects assessment have been updated and the assessments reported in this ES Addendum.

1.3.5 The ES Addendum is set out as follows:

- Chapter 2 – Change request 1 reasons, description, and consideration of environmental impacts
- Chapter 3 – Change request 2 reasons, description, and consideration of environmental impacts
- Chapter 4 – Change request 3 reasons, description, and consideration of environmental impacts
- Chapter 5 – Assessment of the effect of groundwater abstraction during the construction of the Hobson's Conduit and River Granta crossings
- Chapter 6 – Biodiversity assessment on Hobson's Park County Wildlife Site (CWS)
- Chapter 7 – Landscape and visual impact assessment
- Chapter 8 – Updated cumulative effects assessment
- Chapter 9 – Conclusions
- Appendix A – Updated Biodiversity Net Gain Assessment

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2. Change request 1

2.1 Reason for the change

2.1.1 Following submission of the TWAO application for the Scheme, National Gas Transmission (NGT) made a representation in respect of possible impact to the Feeder Main FM03 – GT Wilbraham to Whitwell gas pipeline that would be crossed by the Scheme at two locations, approximately 255 m from the Travel Hub. Figure 2.1 shows the location of the gas pipeline in relation to the Scheme.

2.1.2 The representation raised concerns in respect of:

- The risk to the gas pipeline from the Scheme
- The risk of the gas pipeline to people using or working at the Travel Hub in the event of a failure of the gas pipeline

2.1.3 Following engagement with NGT, the Applicant seeks to amend the Scheme to incorporate certain design changes to mitigate these risks, as presented in section 2.2. below.

2.2 Description of the change

Reducing the risk to the gas pipeline from the Scheme

2.2.1 To mitigate the risk to the gas pipeline from the Scheme, two minor design changes been identified, one at each of the gas pipeline crossing points. The first crossing point would be by the busway at Chainage 8950. At this location, it is proposed to divert a short length of the existing gas pipeline which would be under the busway. The diversion of the pipeline would be undertaken in accordance with outage requirements during the construction enabling works. This would enable a reinforced section of pipeline to be installed in the area which will be crossed by the busway. The works would protect the pipeline from damage during the construction and operation of the busway.

2.2.2 This short diversion would require the excavation of a new trench, parallel to the existing pipeline, and connecting to the existing pipeline at either end. A new section of gas pipeline would be installed in the trench and connected at each end to the existing gas pipeline. Once the connection has been established, the open trench would be back filled ready for the main construction works to commence. The redundant section of existing gas pipeline would either remain in situ or be removed.

2.2.3 The works to undertake the gas pipeline diversion require additional land beyond the original Order Limits. Permanent rights to operate and maintain the stretch of diverted pipeline in its new location will be required, along with an additional working area which will be required temporarily during construction. The required area of additional land is shown on the Amended Proposed Site Section Sheets (2) **[CD-CR.5].**

2.2.4 The second location where the gas pipeline would be crossed by the Scheme is at the A1307, where the proposed new junction to provide access to the Travel Hub is located. The original junction design was for a three-armed roundabout and the north-western arm of the junction would have required the widening of the A1307 at the location where the existing highway crosses the gas pipeline. The original junction design is shown on page 38 of the ES Appendix 2.2 LEMP [**CD1-10.05**].

2.2.5 It is proposed to change the three-armed roundabout junction to a signalised T-junction as shown in on the Amended Proposed Site Section Sheets (2) **[CD-CR.5]**. This amended junction layout avoids the requirement to widen the existing A1307 at the location of the gas pipeline, where the pipeline is already protected from damage, and therefore eliminates the risk of construction works impacting the gas pipeline.

Reducing The Risk of the Gas Pipeline to People Using or Working at the Travel Hub in the Event of a Failure of the Gas Pipeline

2.2.6 The risk of failure of the gas pipeline is assessed by considering the acceptability of certain activities within distance bands from the gas pipeline, based on guidance provided by the Institution of Gas Engineers and Managers. The assessment is based on multiples of a defined Building Proximity Distance (BPM). For the FM03 gas pipeline the BPM is 78 m which is multiplied by 3 based on the population density at the Travel Hub as a “medium development”. This results in an exclusion zone of 234 m for facilities where people are likely to congregate for periods of time. At approximately 200 m from the gas pipeline, the proximity of the Travel Hub building and resulting risk is not acceptable to NGT.

2.2.7 To resolve this risk, the Travel Hub has been redesigned to move the waiting area approximately 255 m from the gas pipeline and beyond the 234 m exclusion zone. The original design is shown on pages 37 and 38 of the ES Appendix 2.2 LEMP [**CD1-10.05**]. The layout of the reconfigured Travel Hub is shown on the Amended Proposed Site Section Sheets (2) **[CD-CR.5**. This does not require any additional land outside of the existing Order limits. Only the configuration of the Travel Hub has changed. Other relevant design parameters, including the number of parking spaces, capacity, size of the building remain the same. The landscape design has been updated to accommodate the reconfigured layout but the mitigation principles for landscape and ecological impacts that were embedded into the design are retained. This includes screening vegetation, and areas of habitat that were included in the original design. This does, however, create the opportunity to reduce the loss of mature trees which was a concern raised by GCSP.

2.2.8 In addition to the Travel Hub redesign, protective matting will be placed over the top of the pipeline between the planned diversion, described above, and the A1307 to the north, and the River Granta to the south. The works will require the excavation of a trench to uncover the existing pipeline, laying the protective matting on top of the exposed pipeline, and then backfilling the trench. The protective matting will only be required where the pipeline passes through the fields and is not required where the pipeline passes underneath the two hedgerows in this location. The protective matting works would also require a short temporary diversion of footpath 12/4 during construction works.

2.3 Consideration of environmental effects

2.3.1 The gas pipeline diversion and protective matting works would be undertaken as part of the enabling works and would extend the programme for this phase of construction works. As such they were not considered in the original ES [**CD1-10.02**] and warrant additional consideration as to whether likely significant effects would arise.

2.3.2 The gas pipeline is located beneath agricultural land and crosses a public footpath and two hedgerows. The nearest residential receptor is located approximately 380 m to the east on Newmarket Road. An assessment of the likely significant effects resulting from the gas pipeline diversion is provided in Table 2.1. Impacts are limited to the construction phase, as once the works are complete, the gas pipeline will continue to operate as per the baseline situation.

2.3.3 The Travel Hub reconfiguration would not change the conclusions of the original ES [**CD1-10.02**]. The quantum of development and key parameters that were assessed have not changed as a result of the reconfigured layout. Key mitigation including ecology ponds, compensatory drainage ditches, and screening vegetation are all retained within the reconfigured layout.

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2.3.4 No additional environmental effects or mitigation beyond that already identified in the original ES [**CD1-10.02**] have been identified for Change request 1.

Table 2.1 Assessment of possible environmental effects from Change request 1

Aspect	Potential environmental effect
Air quality	The works are located in an agricultural field with no sensitive dust receptors nearby. The nearest residential property is located on the opposite side of the A11, along Newmarket Road approximately 380 m from the proposed works. Habitats that could be impacted by the works include a block of woodland between the gas pipeline and the Travel Hub. Impacts to this habitat from dust has already been assessed in Chapter 10 of the ES, and the works would not result in any additional impact. Mitigation for dust is already set out in the CEMP [CD1-10.08], and no further mitigation is required to ensure that there would be no significant effects. Combustion emissions from construction plant and traffic would be unlikely to generate any significant adverse effects given the scale of works required, and the lack of any receptors in the immediate vicinity of the proposed works.
Noise and vibration	The nearest noise sensitive receptor is located on the opposite side of the A11, along Newmarket Road approximately 380 m from the proposed works, further than the 300 m study area for construction noise. As such construction noise would not result in a significant effect. There would be a small increase in baseline noise emissions from construction plant and traffic in the area but this would not result in a change in the assessment conclusion set out in Chapter 7 of the ES, that there would be less than a 1 dB increase in noise and no significant effect. There are no noise sensitive receptors in the vicinity of the proposed works so there would be no effect from any noise increase. The small increase in construction traffic would not result in a significant change to road traffic noise. Excavation of the trenches for the existing and new pipelines could cause vibration. There are no vibration sensitive receptors within the 100 m study area for construction vibration so there would be no effect.
Water environment	The nearest surface water body is the River Granta located adjacent to the proposed works to install protective matting over the pipeline. Potential impacts include sediment laden runoff from bare earth caused by the excavation of the trenches and accidental leaks and spills of fuels from construction plant. Pollution impacts to the River Granta have already been assessed in the ES where the busway would cross the watercourse, The proposed pipeline protective works would not increase the impact already assessed in Chapter 8 of the ES. Mitigation for this impact has already been set out in the ES and secured within the CEMP. Relevant mitigation already identified in the ES includes: ▪ WE2 Implementation of best practice measures outlined in the draft CoCP and draft CEMP ▪ WE4 Adherence to pollution prevention guidance ▪ WE5 Safe storage of fuel and oil on Site, and measures to minimise leaks and drips ▪ WE9 Safe storage of chemicals and hazardous substances Most of the proposed works are located in Flood Zone 1 which is land assessed as having a low probability of flooding (0.1% annual probability), but works close to the River Granta would be located in Flood Zone 3. Works are anticipated to take approximately 1 to 2 days to complete and the contractor would not undertake the works if the River Granta was in flood or at risk of being in flood. The proposed works would not result in any change to runoff rates nor increase flood risk to third party land. There would be no significant effect to or from flooding.
Geology and soils	It is anticipated that the works would require relatively shallow excavations for the pipeline trenches, approximately 2.6 m in depth. There are no known sources of contamination in the area so the works would not create a new contaminant pathway and there would be no impact. The CEMP (CD1.10-08) already identifies the mitigation measures required to ensure that significant effects would not arise. Agricultural Land Classification (ALC) surveys indicate that soils in the location of the pipeline diversion are grades 2, 3a, and 3b. Grades 2 and 3a constitute Best and Most Versatile. The proposed pipeline works would result in an increased loss of approximately 0.3 ha of BMV land beyond that reported in the original ES, resulting in a total loss 31.6 ha which has already been assessed as significant in the ES. An additional 1.3 ha of land would be required for the temporary works but as these are very short duration lasting 1 or 2 days, there would be no significant effect. Soils would be retained and managed to ensure that quality is not impacted. Mitigation required to minimise impacts is set out in the CSET2 Scheme's Soils Management Strategy.
Biodiversity	The proposed works are located in an arable field with low biodiversity value and of limited value to any protected species. The two hedgerows which are crossed by the pipeline would be maintained and protected as per the other retained vegetation across the Site. Mitigation already identified in the ES would ensure these habitats are not impacted. The relevant mitigation is BD3 Retention and protection of existing vegetation using protective barriers. The detail of this mitigation is set out on page 177 of the original ES **[CD1-10.02].**Minor impacts from noise disturbance to the habitat or the species in the woodland close to the proposed works has already been assessed in the ES, and the impact would be no worse as a result of the proposed pipeline works.

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Aspect	Potential environmental effect
Landscape and visual	The proposed works would be located in the Granta River Valley Landscape Character Area (LCA) 9D and the Pampisford Lowland Chalklands LCA 8A which have both been assessed as being of medium sensitivity (see Chapter 7 of this ES Addendum for the updated landscape and visual assessment). The small scale of the proposed works, which would affect a very small part of the overall LCA would not result in significant adverse effects, so the original findings of the ES, as updated in Chapter 7 remain valid. Construction works would appear in the views of users of the public footpath which bisects the Travel Hub (representative Viewpoint 30). Construction works would be relatively minor, temporary, and reversible. Changes to views be in the context of the other construction works associated with the busway and Travel Hub and would not result in significant adverse effects. The change in the Travel Hub design would have broadly comparable landscape and visual impacts compared to the Scheme design assessed in the original ES. The shift of hard infrastructure including the building, and areas of hard standing closer to the A11 slightly reduces the impact on landscape character by minimising intrusion into open arable areas and increasing the amount of landscape buffer planting between the Travel Hub and fields beyond the Order Limits. The updated landscape design also retains the important tree AT025 which GCSP had specifically requested to be retained.
Historic environment	There is known archaeology present within the vicinity of the proposed works. Any archaeology that could be impacted by the works are likely to have already been damaged or lost as a result of the construction of the original pipeline. Further damage could occur but the presence of an archaeological watching brief and the allowance of sufficient time within the construction programme to address any discovered archaeology would be sufficient to mitigate possible effects. Consultation with the County Archaeologist has confirmed that this would be an acceptable approach and that no significant effects are likely. . The Babraham Conservation Area is approximately 300 m from the nearest point of the proposed gas pipeline works. Construction works are for a short duration, small in scale, temporary and reversible and the rural setting of the Conservation Area would be preserved. The negligible impact would result in a slight adverse and not significant effect, as reported in Chapter 12 of the ES.
Population and human health	There would need to be a short temporary diversion for footpath 12/4 during construction. The Contractor would need to determine this at the detailed design stage, but it is envisaged that the diversion could be accommodated within the Order Limits and would be a few tens of metres. The diversion would only be required for the duration of the construction works. The diversion is unlikely to discourage users of the footpath from continuing to use it so there would not be a significant effect. There would be no other impacts to population and human health receptors.
Traffic and transport	The amended junction layout would perform in a broadly similar way to the original roundabout junction, and would require similar time, materials, and construction traffic to build. There would be no change to traffic and transport related effects beyond those reported in the original ES (CD1-10.02).
Climate vulnerability	The duration of the construction phase would be less than a year long. Climate is not expected to change significantly in such a short time period and there would be no significant effects. Proposed works would be designed to the relevant standards to ensure resilience to future climate change.
Greenhouse gas emissions	There would be a small increase in greenhouse emissions due to the embedded carbon in the materials used during construction and the emissions from construction traffic and plant. This would be a negligible effect and would be considered unlikely to have a material impact on the UK Government from meeting its carbon reduction plan targets.
Waste and resources	A small amount of waste would be anticipated to be produced during construction. There would be a cut and fill balance as excavated material would be used to back fill the trench. The waste hierarchy would be adhered to and most of the waste is anticipated to be recyclable. There would not be a significant loss of landfill void capacity within the region. A small amount of materials will be used for the new pipeline. This would not be a significant effect. The proposed works are located in a Safeguarded Mineral Resource Area for chalk, and sand and gravels. The additional land take is 0.3 ha which would not result in a significant loss of the extensive Safeguarded Mineral Resource Areas.
Cumulative effects	No significant effects are anticipated, and minor impacts can be easily mitigated through standard best practice measures that would be set out in the CEMP. As the proposed works are of limited scale and duration, are temporary and reversible, any minor and non-significant effects would not result in cumulative effects with other projects. No individual receptors would be impacted by the proposed works through different environmental aspects, so there would be no in-combination effects.

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3. Change request 2

3.1 Reason for the change

3.1.1 Following submission of the TWAO application, the Applicant has continued to negotiate with affected landowners to seek voluntary agreement on the acquisition of the land within the Order Limits. As a result of this, it has been agreed that the Order Limits will be reduced for the parcel of land immediately south of Francis Crick Avenue which land is no longer required for the delivery of the Scheme.

1.1.1 In addition, ongoing engagement with the Hobson's Conduit Trust (HCT) has resulted in changes to the Scheme in the vicinity of Hobson's Conduit and Nine Wells to minimise the following environmental effects:

- Reducing shading of aquatic habitats in Hobson's Conduit;
- Minimising the risk of disrupting groundwater flows; and
- Minimising the risk of water quality impacts.

3.2 Description of the change

Reduced Order Limits

3.2.1 To enable a reduction in the amount of land required immediately south of Francis Crick Avenue, the two proposed Ecological Ponds 1 and 2 have been relocated from their original location to the east of the busway, to a new location to the west of the busway as shown on the Amended Proposed Site Section Sheets (1) [CD-CR.6].

3.2.2 The revised location of the two ecological ponds allows for the alignment of the proposed access and maintenance tracks in this location to be straightened and the small parcel of land where the two ecological ponds were originally located is no longer required.

3.2.3 The original Scheme design is shown on page 23 of the ES Appendix 2.2 LEMP [CD1-10.05].

Reducing shading of aquatic habitats in Hobson's Conduit

3.2.4 The proposed Hobson's Conduit Bridge has been amended by narrowing the width of the bridge deck by 1.75 m to a new width of 13.15 m, and by increasing the length of the bridge span by 1.5 m to a new length of 16.5 m.

3.2.5 The amended design will result in a larger aperture which will allow more natural light to penetrate underneath the bridge. Combined with the narrowing of the bridge deck, there will be a reduction in the area of shading underneath the bridge compared to the original design.

Minimising the risk of disrupting groundwater flows

3.2.6 Hobson's Conduit is a man-made channel that conveys surface water from natural springs located in the Nine Wells Local Nature Reserve (LNR) immediately adjacent to the Order limits. HCT have raised concerns that the excavation works for Ecological Pond 3 and Attenuation Pond 1, set out in the original ES, risk disrupting the ground water flows that feed the natural springs. HCT have also observed shallow ground water weeping from the southern bank of Hobson's Conduit and are concerned that Ecological Pond 3 and Attenuation Pond 1 would disrupt these flows, potentially reducing the overall flow of Hobson's Conduit.

3.2.7 To minimise both of these risks, Change request 2 removes Ecological Pond 3 entirely from the Scheme, and relocates Attenuation Pond 1 closer to the busway and further from the springs in Nine Wells. The shape and orientation of Attenuation Pond 1 in the preliminary design has been amended so that the revised pond design is elongated and orientated parallel to the busway. This minimises any potential disruption of shallow ground water flows that cause the observed weeping in the southern bank of Hobson's Conduit. This will be confirmed at the detailed design stage.

3.2.8 Ecological Pond 3 was intended to provide mitigation for water voles, which have been recorded in Hobson's Conduit. The assessed impact was a reduction in suitable habitat due to the presence of the Hobson's Conduit Bridge and Ecological Pond 3 would provide compensatory habitat within close proximity to the impacted location. Following engagement with HCT, it is now proposed to improve the suitability of the southern bank of Hobson's Conduit for water vole, by removing the existing scrub and vegetation, and exposing the bank. This would be complemented by the proposed grassland planting in the area of land south of Hobson's Conduit which would provide additional foraging habitat for water vole. Ecological Pond 3 would then not be required and so would be removed.

3.2.9 The revised landscape design showing the removal of Ecological Pond 3 and the amended design of Attenuation Pond 1 is shown on Amended Proposed Site Section Sheets (1) [CD-CR.6]. The original Scheme design is shown on page 23 of the ES Appendix 2.2 LEMP [CD1-10.05].

Minimising the risk of water quality impacts

Construction phase water quality

3.2.10 HCT have raised concerns about the proximity of construction compound 1 (referred to as construction compound 7 in the original ES) to both the Nine Wells LNR and Hobson's Conduit. The original ES had assumed that the boundary of the construction compound could abut the Nine Wells LNR and Hobson's Conduit. Change request 2 reduces the maximum size of construction compound 1 so that there would be a minimum of 40 m between the edge of the construction compound and the Nine Wells LNR and Hobson's Conduit. The revised construction compound confirming the 40 m buffer is shown on the Amended Construction Compounds drawing (CD-CR.8).

Operational phase water quality

3.2.11 HCT are concerned about the impact of contaminated surface water runoff from the busway impacting the water quality of Hobson's Conduit, particularly with regards to de-icing salt. The original drainage strategy [CD1-10.04] already allows for any necessary pollution control measures that would be required and this will be confirmed at the detailed design stage.

3.2.12 To provide reassurance that surface water runoff will be adequately treated before being discharged to Hobson's Conduit, a commitment has been made to include a reed bed treatment train as part of Attenuation Pond 1 as shown on Amended Proposed Site Section Sheets (1) [CD-CR.6].

3.3 Consideration of environmental effects

Reducing Order Limits

3.3.1 The reduction in Order Limits has resulted in the relocation of two ecological ponds. These are required to mitigate potential impacts on great crested newts as there are records of great crested newts in the nearby existing attenuation pond and North Ditch from previous surveys. The relocation of these two ponds to the other side of the busway would not change the effectiveness of these ponds in delivering the intended mitigation. No other assessments from the original ES **[CD1-10.02]** would be affected by this change and the conclusions of the original ES **[CD1-10.02]** remain valid.

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Reducing shading of aquatic habitats in Hobson's Conduit

3.3.2 The reduced width and increase span of the amended design of the proposed Hobson's Conduit bridge would result in a slightly reduced shading impact compared to the original design. The original ES (CD1-10.02) assessed Hobson's Conduit as being of local sensitivity and the shading impact as being a minor magnitude impact resulting a slight adverse and not significant effect. Whilst the amended bridge design would slightly reduce the shading impact, the impact magnitude would still be slight and the assessed effect would still be slight adverse and not significant.

Minimising the risk of disrupting groundwater flows

3.3.3 The original ES (CD1-10.02) assessed the impact of the Hobson's Conduit bridge piles on groundwater flows and concluded that there would be a negligible impact magnitude resulting in a slight adverse but not significant effect. This remains the case with the amended bridge design.

3.3.4 The proposed removal of Ecology Pond 3 means that there would be no impact on groundwater flows. Attenuation Pond 1 would be lined to prevent groundwater intrusion which would reduce the attenuation capacity of the pond. As such, any lateral groundwater flows contributing to the flow of Hobson's Conduit would be maintained as flow paths would continue around the pond. There would be a negligible impact magnitude which would result in a slight adverse but not significant effect due to the high value of Hobson's Conduit. No further mitigation beyond the amended design is proposed.

3.3.5 The mitigation provided by Ecology Pond 3 for compensatory water vole habitat would instead be provided by the improved habitat along the southern bank of Hobson's Conduit.

Minimising the risk of water quality impacts

Construction phase effects

3.3.6 The original ES (CD1-10.02) assessed the impact of pollution from sediment laden runoff, accidental spills and leaks of oil and chemicals, wet cement or concrete, as having a negligible impact resulting in a slight adverse effect due to the proposed best practice mitigation that would be implemented. The 40 m buffer between the construction compound and Nine Wells LNR and Hobson's Conduit, proposed as part of change request 2, would further mitigate the impact which would still be negligible and would still result in a slight and not significant effect.

Operational phase effects

3.3.7 The original ES (CD1-10.02) assessed the impact of surface water drainage on the water quality of Hobson's Conduit as negligible due to the provision of pollution control measures in the drainage strategy (CD1-10.04). This was assessed as a slight adverse and not significant effect due to the high value of Hobson's Conduit. The additional pollution control via the reed bed treatment train would further reduce the impact, which would still be negligible and would still be a slight adverse and not significant effect.

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4. Change request 3

4.1 Reason for the change

4.1.1 As with Change request 2, negotiations with the land owner at the River Granta (Stapleford) Crossing have progressed resulting in a design change to remove two triangular shaped land parcels from the Order Limits.

4.2 Description of the change

4.2.1 The land that will be removed from the Order Limits was intended to provide landscape mitigation to the River Granta (Stapleford) Crossing, in the form of screening vegetation, and some enhancement, in the form of wildflower meadow planting. The enhancement is not required to mitigate any assessed environmental effects so can be removed from the Scheme. The landscape design has been amended within the revised Order limits as follows:

- Triangular block of woodland providing visual screening moved closer to the southern bridge abutment
- Additional woodland planting on the bridge abutment
- Reconfiguration of the compensatory ditch habitat

4.2.2 the Amended Proposed Site Section Sheets (1) **[CD-CR.6]** shows the amended Order Limits and amended landscape design. The original Scheme design is shown on page 30 of the ES Appendix 2.2 LEMP **[CD1-10.05]**.

4.3 Consideration of environmental effects

4.3.1 Changes to the Order Limits at the River Granta (Stapleford) Crossing would reduce the amount of land available for the landscape design. At this location, the Scheme's original landscape design proposed extensive areas of wildflower meadow, scattered trees, a small block of woodland, and compensatory ditch habitat.

4.3.2 The area of wildflower meadow was enhancement, whilst the other areas of planting were mitigation for habitat loss, integration into the surrounding landscape, and visual screening of the proposed viaduct. In the amended landscape design, all of the mitigation planting and habitats have been moved into the revised Order Limits so that they still effectively perform their mitigation function.

4.3.3 The total area of wildflower meadow planting will be reduced as a result of the amended Order Limits but as this planting type was for enhancement only, there would be no change to the conclusions of the original ES (CD1-10.02). There would be a reduction in the area available for Biodiversity Net Gain (BNG) and the BNG calculations have been updated accordingly (Appendix A). The updated calculations show that there would be a BNG increase of 31.88% for habitats. 78.35% for hedgerows, and 3.88% for watercourses.

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5. Assessment of effects from dewatering

5.1 Description of dewatering activities

5.1.1 The original ES assumed that no dewatering would be required during the construction of the Scheme. Further work has been undertaken on the approach to constructing the Scheme. It is now considered likely that dewatering will be required for the foundations of the Hobson's Conduit and two River Granta crossings.

5.1.2 The Ground Investigation Report **[CD1-10.26]** shows that groundwater depths, standing after 20 minutes, at the locations of the three bridges are as follows:

- Hobson's Conduit crossing: 0.86 mbgl to 3.2 mbgl
- River Granta (Stapleford) crossing: 0.00 mbgl to 1.91 mbgl
- River Granta (Babraham) crossing: 0.86 mbgl to 3.90 mbgl

5.1.3 These levels will fluctuate over time depending on seasonality, rainfall, and river flow levels over the preceding weeks.

5.1.4 To construct the piers of the two River Granta crossings, excavations of approximately 2 mbgl are expected to be required. This will provide sufficient depth to construct the pile cap at a thickness of 1,500 mm with a 500 mm cover of soil on top of the pile cap. Similar depth excavations are expected to be required for the abutments of all three bridges.

5.1.5 At these depths it is likely that some groundwater will be encountered which will require pumping to create a dry working area.

5.2 Impact assessment

5.2.1 The dewatering could have potential effects on groundwater and the surface water bodies which will receive the pumped and discharged water. The effects on these two receptors are assessed in the Tables 5-1 and 5-2 respectively. Effects will only occur during the construction phase whilst the bridge foundations are being constructed.

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Table 5-1 Assessment of effects on groundwater

Baseline		Impact assessment					
Receptor	**Value**	**Impact**	**Mitigation**		**Magnitude**	**Residual Effect**	**Significance**
Groundwater	High	Dewatering excavations of the River Granta and Hobson's Conduit crossings	GS7	Completion of a hydrogeological impact assessment.	Minor	Groundwater levels will be impacted as a consequence of localised dewatering, given the expected depth of the works (2.1 m bgl) and measured groundwater levels (0.3 - 0.5 m bgl at Hobson's Conduit and 2.85 - 3.3 m bgl at River Granta) required drawdowns are expected to be minimal. Where required, groundwater controls such as coffer dams, sheet piles etc will be utilised to restrict abstraction rates and drawdowns. All water is expected to be returned to the adjacent rivers or permeable vegetated ground nearby, which will limit impact to the wider water environment.	Slight adverse Not significant

Table 5-2 Assessment of effects on surface water

Baseline		Impact assessment					
Receptor	**Value**	**Impact**	**Mitigation**		**Magnitude**	**Residual Effect**	**Significance**
Hobson's Conduit	High	Discharge of dewatered water from excavations for the foundations of the Hobson's Conduit crossing	WE8	Safe disposal of pumped water	Minor	The groundwater quality in the vicinity of Hobson's Conduit is not expected to be significantly different to the receiving surface water in Hobson's Conduit due to locality. The nature of dewatering activities means that an increase in suspended solids is likely in the discharged water which could adversely impact the water quality of Hobson's Conduit downstream of the discharge point. Discharge to Hobson's Conduit will need to be undertaken in accordance with a permit from the Environment Agency and as such will be subject to prescriptive conditions, including requirements to meet suspended solids concentrations. Proprietary treatment to meet these conditions is proposed to meet these requirements and as such the magnitude of impact is expected to be minor resulting in a slight adverse and not significant effect.	Slight adverse Not significant
River Granta	High	Discharge of dewatered water from excavations for the foundations of the River Granta crossings	WE8	Safe disposal of pumped water	Minor	The groundwater quality in the vicinity of the River Granta at both the Stapleford and Babraham crossings is not expected to be significantly different to the receiving surface water in the River Granta due to locality. The nature of dewatering activities means that an increase in suspended solids is likely in the discharged water which could adversely impact the water quality of the River Granta downstream of the discharge point. Discharge to the River Granta will need to be undertaken in accordance with a permit from the Environment Agency and as such will be subject to prescriptive conditions, including requirements to meet suspended solids concentrations. Proprietary treatment to meet these conditions is proposed to meet these requirements and as such the magnitude of impact is expected to be minor resulting in a slight adverse and not significant effect.	Slight adverse Not significant

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5.3 Mitigation

GS7 Completion of a Hydrogeological Impact Assessments

5.3.1 A hydrogeological impact assessment will be undertaken during detailed design in accordance with the Environmental Agency guidance[1]. The hydrogeological impact assessment will consider the specifics of the proposed dewatering, quantify the impacts and identify any mitigation that may be required.

WE8 Safe Disposal of Pumped Water

5.3.2 Pumping works will be controlled using a 'Permit to Pump' system to prevent pollution of drainage systems or receiving water courses. In general, small volumes of localised pumping to dewater excavations will be discharged to an area of vegetated ground close to the excavation. Measures for prevention of pollution during larger dewatering activities will be agreed with the Environment Agency and could include the use of Silt Busters or other similar technologies. The method for treating discharged water will be determined at the detailed design stage.

5.4 Monitoring

5.4.1 Discharge from dewatering activities may be subject to permitting requirements as per Environment Agency Guidance[2]. In line with these requirements, baseline conditions of the receptor will be required and as such pre-construction monitoring for a minimum of 12 months (ideally 36 samples covering a full seasonal range), with monthly sampling will be required. During construction compliance checks may also be required, which will include water quality monitoring and daily visual inspections. Details of monitoring plans should be included within the relevant CEMP documents.

[1] https://www.gov.uk/government/publications/preparing-a-hydrogeological-impact-assessment/preparing-a-hydrogeological-impact-assessment

[2] Risk assessments for specific activities: environmental permits - GOV.UK

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6. Biodiversity assessment on Hobson's Park CWS

6.1 Background

6.1.1 Since undertaking the review of baseline information for the original ES, Hobson's Park has subsequently been designated as a County Wildlife Site (CWS) and so was not considered in the original ES. This chapter provides an update to the biodiversity chapter of the ES with an assessment of potential effects on the Hobson's Park CWS.

6.2 Baseline

6.2.1 Hobsons Park CWS is located approximately 110 m (at its closest point) from the Order Limits for land required temporarily during construction and approximately 135 m from the Order Limits for land to be permanently acquired. The site is designated for its breeding and wintering bird species and supports a population of the nationally scarce plant species Abaleas (*Torilis arvensis*). As a CWS, the site is considered to be of County Importance.

6.3 Impact assessment

6.3.1 The assessment of the potential effects on Hobson's Park CWS during construction are set out in Table 6-1 and during operation in Table 6-2.

Table 6-1 Assessment of effects on Hobson's Park CWS during construction

Baseline		**Impact assessment**					
Receptor	**Value**	**Impact**	**Mitigation**		**Magnitude**	**Residual Effect**	**Significance**
Hobson's Park CWS	County	Construction dust	AQ1	Implementation of the general mitigation measures specified in the IAQM guidance for all construction activities	Negligible	Construction dust could smother plants within the CWS causing damage to habitats. At 110 m from the nearest construction works, the main risk from dust would be from track out, as set out in the air quality assessment in the original ES. The mitigation specified in the original ES would ensure that the impact magnitude would be negligible resulting in a neutral effect that would not be significant.	Neutral Not significant
			AQ4	Implementation of the mitigation measures specified in the IAQM guidance for low risk track out activities			
Hobson's Park CWS	County	Pollution from sediment laden runoff, accidental spills and leaks of oil and chemicals, wet cement or concrete.	WE2	Implementation of best practice measures outlined in the draft CoCP and draft CEMP	Negligible	Hobson's Park is hydraulically linked to the Scheme via Hobson's Conduit. Pollution from construction works including sediment laden runoff, accidental spills and leaks of oil and other construction chemicals could be washed into Hobson's Conduit and migrate downstream to Hobson's Park causing damage to riparian habitats. The mitigation measures already set out in the original ES would ensure that any impact would be negligible, resulting in a neutral effect that would not be significant.	Neutral Not significant
			WE4	Adherence to pollution prevention guidance			
			WE5	Safe storage of fuel and oil on Site, and measures to minimise leaks and drips			
			WE6	Concrete washout procedure and other concrete mitigation			
			WE7	Temporary drainage and surface water management			
			WE9	Safe storage of chemicals and hazardous substances			

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Table 6-2 Assessment of effects on Hobson's Park CWS during operation

Baseline		Impact assessment					
Receptor	**Value**	**Impact**	**Mitigation**		**Magnitude**	**Residual Effect**	**Significance**
Hobson's Park CWS	County	Pollution associated with routine runoff along the busway. Risk of an accident resulting in a serious pollution incident	N/A	None proposed	Negligible	The drainage design includes filter drains, swales and other SuDS measures that will minimise the concentrations of pollutants entering Hobson's Conduit and which could flow downstream to Hobson's Park. The busway is expected to take only light usage (maximum of 24 buses per hour) compared to a traditional road so there is a relatively low risk of pollution from runoff. The magnitude of impact to Hobson's Brook from route runoff is negligible resulting in a neutral effect which would not be significant.	Neutral Not significant

6.4 Mitigation measures

6.4.1 Details of the mitigation measures set out in Table 6-1 can be found in the original ES as follows:

- AQ1 Implementation of the general mitigation measures specified in the IAQM guidance for all construction activities: See page 86 or the original ES
- AQ4 Implementation of the mitigation measures specified in the IAQM guidance for low risk track out activities: See page 87 of the original ES
- WE2 Implementation of best practice measures outlined in the draft CoCP and draft CEMP: See page 129 of the original ES
- WE4 Adherence to pollution prevention guidance: See page 130 of the original ES
- WE5 Safe storage of fuel and oil on Site, and measures to minimise leaks and drips: See page 130 of the original ES
- WE6 Concrete washout procedure and other concrete mitigation: See page 130 of the original ES
- WE7 Temporary drainage and surface water management: See page 130 of the original ES
- WE9 Safe storage of chemicals and hazardous substances: See page 130 of the original ES

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7. Landscape and visual impact assessment

7.1 Introduction

7.1.1 This chapter provides an update to the landscape and visual assessment that was presented in the original ES. The sections which have been updated are:

- Method of assessment (Section 11.3 in the original ES)
- Baseline conditions (Section 11.4 in the original ES)
- Impact assessment (Section 11.5 in the original ES)
- Summary of significant effects (Section 11.8 in the original ES)

7.1.2 All other sections in the original ES Chapter 11 remain as reported in the original ES.

7.2 Method of assessment

Guidance documents

7.2.1 The assessment was undertaken in accordance with the following guidance:

- Guidelines for Landscape and Visual Impact Assessment, 3rd Edition: (GLVIA3) Landscape Institute and Institute of Environmental Management and Assessment (2013)[3]
- Design Manual for Roads and Bridges (DMRB) LA 107 Landscape and visual effects[4].

Establishing the baseline

Study area

7.2.2 The study area for the assessment extends to 2 km radius from the Site in accordance with the Scoping Report and Scoping Opinion (CD1-10.11 and CD1-10.12 respectively). A Zone of Theoretical Visibility (ZTV) has also been established within the study area. The ZTV has been calculated using Geographical Information System (GIS) software with a digital surface model which includes the landform and topography, as well as buildings and vegetation. The GIS determines where within the landscape the Proposed Development would be visible from for a typical viewer at eye level (1.6 m). Two ZTVs have been produced, for the opening year (year 1) and 15 years after opening when the landscape planting will have established. The Lighting Impact Assessment (CSET-10-46-00) shows that no light spill will impact receptors outside of the study area.

Desk study

7.2.3 The following sources of information have informed the desk study:

- Natural England National Character Areas
- MAGiC maps
- Ordnance Survey Explorer Maps
- South Cambridgeshire District Council website
- Cambridge Southeast Transport – Consideration of Green Belt Issues
- South Cambridgeshire District Design Guide Supplementary Planning Document
- Aerial photography available from Google Earth
- Published landscape character assessments (Greater Cambridge Landscape Character Assessment by Chris Blandford Associates)[5]

Surveys

7.2.4 Walkover surveys to establish conditions on Site and to assess landscape and visual impacts were carried out in winter 2019 and summer 2021 with further confirmatory surveys carried out in autumn 2022.

7.2.5 Photographs were taken during winter and summer to represent the character of the landscape and existing views. A digital SLR camera with a full-frame sensor and 50mm fixed lens was used to capture the photographs. See Appendix 11.1 Viewpoint Photo Sheets (CD1-10.44) for the winter and summer photographs for each viewpoint.

Determining sensitivity on landscape receptors

7.2.6 The sensitivity of the landscape receptor is determined by considering the value of the landscape in combination with the susceptibility of the landscape receptor to change of the type proposed.

7.2.7 The value of each of the landscape receptors was determined using the criteria set out in Table 7-1 which is based on guidance in GLVIA3.

[3] Landscape Institute. Guidelines for Landscape and Visual Impact Assessment (GLVIA3). Available at: https: / / www.landscapeinstitute.org / technical / glvia3-panel /

[4] Standards for Highways. Available at: https: / / www.standardsforhighways.co.uk / dmrb / search / bc8a371f-2443-4761-af5d-f37d632c5734

[5] https: / / consultations.greatercambridgeplanning.org / sites / gcp / files / 2021-08 / LandscapeCharacterAssessment_GCLP_210831_Part_A.pdf

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Table 7-1 Landscape value criteria

Landscape value	Criteria
High	Designated landscape (such as National Park, AONB). Landscape of high scenic quality with a distinctive combination of features, elements and characteristics, outstanding views and a strong sense of place. A scarce or fragile landscape with cultural, historic or ecological elements which make a major contribution to landscape character. No or very few landscape detractors. Has components which are difficult to replace (such as mature trees). A tranquil landscape in good condition, largely intact, with an unspoilt character.
Medium	Landscape locally designated (such as conservation area, regional park) or locally valued (for its recreational facilities and footpath networks for instance). Some scenic quality and a moderate sense of place. A landscape with some distinctive features, elements and characteristics. Some cultural, historic or ecological elements which contribute to landscape character. Some high use areas, but overall medium tranquillity. Few landscape detractors.
Low	Undesignated landscape, not valued for its scenic quality, with a disparate combination of features, elements and characteristics and a weak sense of place. Mainly common features and few or no cultural, historic or ecological elements that contribute to landscape character. Many landscape detractors. A landscape of low tranquillity, in poor condition.

7.2.8 Landscape susceptibility is determined using the criteria set out in Table 7-2.

Table 7-2 Landscape susceptibility criteria

Susceptibility	Descriptors
High	The landscape is unlikely to be able to accommodate the proposed change without undue consequences.
Medium	The landscape is likely to be able to accommodate the proposed change, albeit with some consequences.
Low	The landscape will be able to accommodate the proposed change with little or no consequences.

7.2.9 Table 7-3 sets out the criteria used to determine the sensitivity of the landscape receptor as set out in DMRB LA107.

Table 7-3 Sensitivity of the landscape receptor criteria

Sensitivity	Definition
Very High	Landscapes of very high international/national importance, rarity and value with no or very limited ability to accommodate change without substantial loss/gain (i.e. national parks, internationally acclaimed landscapes - UNESCO World Heritage Sites).
High	Landscapes of high national importance, rarity and value with distinctive features/elements with limited ability to accommodate change without incurring substantial loss/gain (i.e. designated areas, areas of strong sense of place-registered parks and gardens, country parks).
Medium	Landscapes of local or regional recognition of importance able to accommodate some change (i.e. features worthy of conservation, some sense of place or value through use/perception).
Low	Local landscape areas or receptors of low to medium importance with ability to accommodate change (i.e. non-designated or designated areas of local recognition or areas of little sense of place).
Negligible	Landscapes of very low importance and rarity able to accommodate change.

Determining sensitivity for visual receptors

7.2.10 The sensitivity for visual receptors is determined by considering the value attached to specific views in combination with the susceptibility of visual receptors to changes to views and visual amenity.

7.2.11 The value of the view is considered in relation to planning designations or heritage assets. It may also be valued in relation to published information (e.g. interpretative material, literature or art). Table 7-4 defines the criteria for determining value of views.

Table 7-4 Criteria for determining value of views

Value	Criteria
High	Views from within landscapes of international / national importance, popular visitor attractions where the view is an important part of the experience or where there is an important cultural association with the view.
Medium	Views from within landscapes of regional / local importance or somewhat popular visitor attractions where the view is part of the experience or where the view has a local cultural association.
Low	Views from within non-designated landscapes with low visitor numbers or where the view has little or no cultural association.

7.2.12 The susceptibility of visual receptors to change is mainly a function of their occupation or activity and the extent to which their attention may be focussed on views, as set out in GLVIA3. Table 7.5 defines the criteria for determining susceptibility.

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Table 7-5 Susceptibility criteria

Susceptibility	Criteria
High	Residents; people who are engaged in outdoor recreation whose attention is likely to be focused on the landscape or particular views; visitors to heritage assets or attractions where views are an important part of the experience; travellers on recognised scenic routes.
Medium	Travellers on road, rail or other transport routes where travel involves regular scenic awareness of views; people whose views are an important contributor to their working life.
Low	People engaged in outdoor activities which does not depend upon an appreciation of views; people at their place of work whose focus is not normally on their surroundings.

7.2.13 The sensitivity of visual receptors is set out in Table 7-6 informed by DMRB LA107.

Table 7-6 Sensitivity of views

Sensitivity	Definition
Very High	Static views from and of major tourist attractions. Views from and of very important national/international landscapes, cultural/historical sites (e.g. National Parks, UNESCO World Heritage sites). Receptors engaged in specific activities for enjoyment of dark skies.
High	Views by users of nationally important PRoW / recreational trails (e.g. national trails, long distance footpaths). Views by users of public open spaces for enjoyment of the countryside (e.g. country parks). Static views from dense residential areas, longer transient views from designated public open space, recreational areas. Views from and of rare designated landscapes of national importance.
Medium	Static views from less populated residential areas, schools and other institutional buildings and their outdoor areas. Views by outdoor workers. Transient views from local/regional areas such as public open space, scenic roads, railways or waterways, users of local/regional designated tourist routes of moderate importance. Views from and of landscapes of regional importance.
Low	Views by users of main roads or passengers in public transport on main arterial routes. Views by indoor workers. Views by users of recreational/formal sports facilities where the landscape is secondary to enjoyment of the sport. Views by users of local public open spaces with limited variety or distinctiveness.
Negligible	Quick transient views such as from fast moving vehicles. Views from an industrial area, land awaiting re-development. Views from landscapes of no importance with no variety or distinctiveness

Impact assessment

Determining magnitude of change for landscape receptors

7.2.14 The magnitude of change to landscape receptors in construction and during operation will be informed by the criteria set out in Table 7-7 and informed by DMRB LA107.

Table 7-7 Magnitude of change description

Magnitude	Description
Major	Adverse: Total loss or large scale damage to existing landscape character or distinctive features or elements; and/or addition of new uncharacteristic, conspicuous features or elements (i.e. road infrastructure). Beneficial: Large scale improvement of landscape character to features and elements; and/or addition of new distinctive features or elements, or removal of conspicuous road infrastructure elements.
Moderate	Adverse: Partial or noticeable damage to existing landscape character or distinctive features or elements; and/or addition of new uncharacteristic, noticeable features or elements (i.e. road infrastructure). Beneficial: Partial or noticeable improvement of landscape character by restoration of existing features or elements; or addition of new characteristic features or elements or removal of noticeable features or elements.
Minor	Adverse: Slight loss or damage to existing landscape character of one (maybe more) key features and elements; and/or addition of new uncharacteristic features and elements. Beneficial: Slight improvement of landscape character by the restoration of one (maybe more) key existing features and elements; and/or the addition of new characteristic features.
Negligible	Adverse: Very minor loss, damage or alteration to existing landscape character of one or more features and elements. Beneficial: Very minor noticeable improvement of character by the restoration of one or more existing features and elements
No change	No noticeable alteration or improvement, temporary or permanent, of landscape character of existing features and elements.

Determining magnitude of change for visual receptors

7.2.15 The magnitude of change relates to the size or scale of change, its geographical extent and the duration and reversibility of change. Table 7.8 sets out the criteria used as set out in DMRB LA107.

7.2.16 Impacts have been considered at the year of opening (year 1) (i.e., effectively without any additional mitigation in the form of planting) and year 15 (i.e., after the additional mitigation provided by landscape planting has matured). Winter views have been assessed as a ‘worst-case’ as intervening vegetation will provide less screening potential.

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7.2.17 To support the assessment, several photomontages were prepared. These show the Scheme in winter of year 1 of operation. The photomontages are in Appendix 11.2 – Photomontages (CD1-10.45).

7.2.18 The impact of lighting on the character of the landscape and on views experienced by occupiers of residential properties was considered in the assessment, but other visual receptors, such as outdoor recreational receptors, were not considered as they would generally not be present at night, or their immediate context (for example, sports pitches) would already be lit. A Lighting Impact Assessment has been undertaken and can be found in Appendix 11.3 - LIA (CD1-10.46).

Table 7-8 Criteria for determining magnitude of change on visual receptors

Magnitude	Criteria
Major	The project, or a part of it, would become the dominate feature or focal point of the view.
Moderate	The project, or parts of it, would be obvious form a noticeable feature of the view which is readily apparent to the receptor.
Minor	The project, or part of it, would be perceptible but not alter the overall balance of features and elements that comprise the existing view.
Negligible	Only a very small part of the project work or activity would be discernible, or being at such a distance it would form a barely noticeable feature or element of the view.
No change	No part of the project work or activity would be discernible.

Determining effect significance

7.2.19 The significance of effect is partly informed by considering the relationship between the sensitivity of the receptor and the impact magnitude as shown in Table 7-9. Very large, Large or Moderate effects are deemed to be significant. Slight and Neutral effects are deemed to be not significant.

7.2.20 It is important to note that this approach acts as a guide to demonstrate a clear thought process in determining whether an effect will be significant or not. It is not intended to replace the professional judgement exercised by the assessor which will be the main determining factor for attributing effect significance.

Table 7-9 Criteria for determining significance

		Impact magnitude				
		Major	**Moderate**	**Minor**	**Negligible**	**No change**
Receptor sensitivity	**Very high**	Very large	Very large or Large	Large or Moderate	Slight	Neutral
	High	Very large or Large	Large or Moderate	Moderate or Slight	Slight	Neutral
	Medium	Large or Moderate	Moderate	Slight	Slight or Neutral	Neutral
	Low	Moderate or Slight	Slight	Slight or Neutral	Slight or Neutral	Neutral
	Negligible	Slight	Slight or Neutral	Slight or Neutral	Neutral	Neutral

7.2.21 Effects have been considered in terms of direct or indirect; short, medium, or long term; permanent or temporary; and positive or negative.

7.2.22 Where Table 7-9 identifies more than one level of significance, (e.g., Large or Moderate), professional judgement has been used to determine the suitable significance of effect based on the evidentiary baseline and knowledge of the likely activities or types of changes that would cause the impact.

7.3 Baseline conditions

Landscape

7.3.1 The landform of the study area varies between the Gog Magog Hills, part of a chalk ridge south-east of Cambridge, and the low-lying Granta valley. The rounded hills, planted with beech and other broadleaved trees, include White Hill, Clarke's Hill, Fox Hill and Little Trees Hill. The farmed landscape of the study area is mostly in arable cultivation, with large fields and gappy hedgerows. There are pockets of woodland on the higher ground and woodland belts lining the River Granta6. The CBC and residential development on the outskirts of Trumpington form a clear boundary between Cambridge and the rural landscape to the south-east. Villages lining the river corridor include the Shelfords, Stapleford, Sawston and Babraham. This is a landscape of historic interest with an Iron-Age hillfort at Wandlebury and a Roman road which runs along the ridge. There are panoramic views from the Gog Magog Hills ridge looking north-west towards Cambridge and south and south-west over the low-lying landscape of the River Granta Valley. Transport infrastructure includes the A1307 Babraham Road, the A1301 Cambridge Road, the A11 and the Great Northern railway line.

National character area assessments

7.3.2 The study area lies predominantly within NCA 87: East Anglian Chalk[7]. The key characteristics of NCA 87 include:

[6] The Ordnance Survey map labels the river as the River Cam or Granta – both names are used in published documents.

[7] National Character Area 87: East Anglian Chalk: http: / / publications.naturalengland.org.uk / file / 5515367898152960

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- Underlying chalk bedrock giving the area nutrient-poor and shallow soils
- River Rhee and River Granta (chalk rivers) flowing in gentle river valleys north-west across the NCA
- Rolling downland, mostly in arable production, with sparse tree cover but distinctive beech belts along long, straight roads. High points have small beech copses, characteristic features in the open landscape
- Remnant chalk grassland, including road verges, supporting chalkland flora and vestigial populations of invertebrates such as the Chalk Hill Blue butterfly
- Neolithic long barrows and bronze-age tumuli along the Icknield Way, Iron-Age hill forts at Wandlebury and dykes crossing the chalk, and Anglo-Saxon linear earthworks
- Settlement in valleys – small towns and villages
- Roads and lanes crossing the downs perpendicularly and following historic grazing routes, with major roads and railways prominent

7.3.3 A small part of the study area is located within the northeast of NCA 88: Bedfordshire and Cambridgeshire Claylands[8]. The key characteristics of NCA 88 include:

- Gently undulating, lowland plateau dissected by shallow river valleys
- Underlying geology of Jurassic and Cretaceous clays overlain with boulder clay and sand and gravel on the river valleys
- Lime-rich, loamy and clay soils
- Variable woodland cover comprising woodland belts, plantations, copses, secondary woodland, pollarded willows and poplar along river valleys and clusters of ancient woodland
- Open arable farmland landscape of planned and regular fields bounded by open ditches and trimmed, often species-poor hedgerows
- Major transport routes, including the M11, crossing the area
- Settlements cluster along major road and rail corridors, and smaller settlements widely dispersed and often nucleated around a church or village green

County landscape character assessment

7.3.4 The Greater Cambridgeshire Landscape Character Assessment (Chris Blanford Associates, 2021) sets out the context of the county level landscape character assessment. It explains that these evolved from the East of England Landscape Character Typology identified at the regional level and were also informed by the earlier Cambridgeshire Landscape Guidelines (1991). They comprise generic Landscape Character Types (LCTs) and more specific Landscape Character Areas (LCAs). The relevant LCTs are set out in Table 7-10 along with their key characteristics. Cambridge is not included as it is an urban landscape which are not typically assessed.

Table 7-10 Landscape Character Areas

LCA	Characteristics
LCA 3D Cam and Granta Tributaries Lowland Farmlands (LCT 3 Lowland Farmlands)	▪ Wider floodplain of the River Cam or Rhee and River Cam or Granta ▪ Shelterbelts and scattered blocks of deciduous woodland including historic parkland at Sawston Hall provide visual enclosure ▪ Dense pattern of large commuter villages with a suburban character and industrial influences, eroding rural character ▪ Transport networks including railway and major road networks fragment the area ▪ Green corridor including Hobson's Park and the rising foothills of the Gog Magog Hills to the east contributes to the setting of Cambridge
LCA 7A Eastern Chalk Hills (LCT 7 Chalk Hills)	▪ Simple landscape of large predominantly regular fields enclosed by low, gappy hedges ▪ Pocket of 'studscape' in the north including small rectangular paddocks divided by post and rail fencing and shelterbelts ▪ Distinctive pattern of broadleaf, coniferous and mixed shelterbelts and ornamental roadside trees ▪ Small scale landscape, visually contained by landform, trees and shelterbelts, with wind turbines prominent on the horizon of many views
LCA 7B Gog Magog Chalk Hills (LCT 7 Chalk Hills)	▪ Locally prominent chalk hills with distinctive panoramic views over Cambridge ▪ Ecologically diverse landscape with deciduous woodland, lowland calcareous grassland, good quality semi improved grassland, orchard and mosaic habitats ▪ Green corridor which links chalkland sites to the Fens, and contributes to the setting of Cambridge ▪ Accessible landscape with a network of Public Rights of Way (PROW) and recreational land uses including Wandlebury Country Park, local nature reserves and a golf course ▪ Strong sense of time depth due to Wandlebury Hill Fort, circular earthworks and a straight Roman road
LCA 7C Linton Chalk Hills (LCT 7 Chalk Hills)	▪ Simple rural landscape with large, rectilinear arable fields organised in an irregular pattern ▪ Sparsely scattered small woodland blocks, including ancient woodland ▪ Small pockets of lowland calcareous grassland and mosaic habitat ▪ Open character with long views across the Granta River Valley ▪ Distinctive linear features including earthworks, a Roman road, historic tracks, minor roads and dismantled railways

[8] National Character Area 88: Bedfordshire and Cambridgeshire Claylands: http: / / publications.naturalengland.org.uk / file / 4984544973291520

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LCA	Characteristics
LCA 8A Pampisford Lowland Chalklands (LCT 8 Lowland Chalklands)	▪ Mature hedgerows, small blocks of woodland and shelterbelts combine with occasional lines roadside trees to create a visually enclosed, intimate character ▪ Scattered designed historic parkland features, including some modern developments of large science and technology research parks, in proximity to the River Cam and River Granta ▪ Settlement pattern of scattered small villages on elevated ground at the edges of the River Valleys ▪ LCA 9B Cam River Valley (LCT 9 River Valleys) with the following key characteristics – ▪ Sense of separation between historic villages in the Lowland Farmlands ▪ Occasional discordant features including the major road network and railway ▪ Historical and cultural links with poets who described the Cam Valley around Grantchester ▪ Distinctive views across Grantchester Meadows towards Cambridge
LCA 9D Granta River Valley (LCT 9 River Valleys)	▪ Designed parkland landscapes, including modern development at Granta Park ▪ Sense of separation between villages on elevated land in the neighbouring Lowland Farmlands ▪ Time depth associated with historic routes into Cambridge, the Icknield Way and designed parkland

Landscape character areas

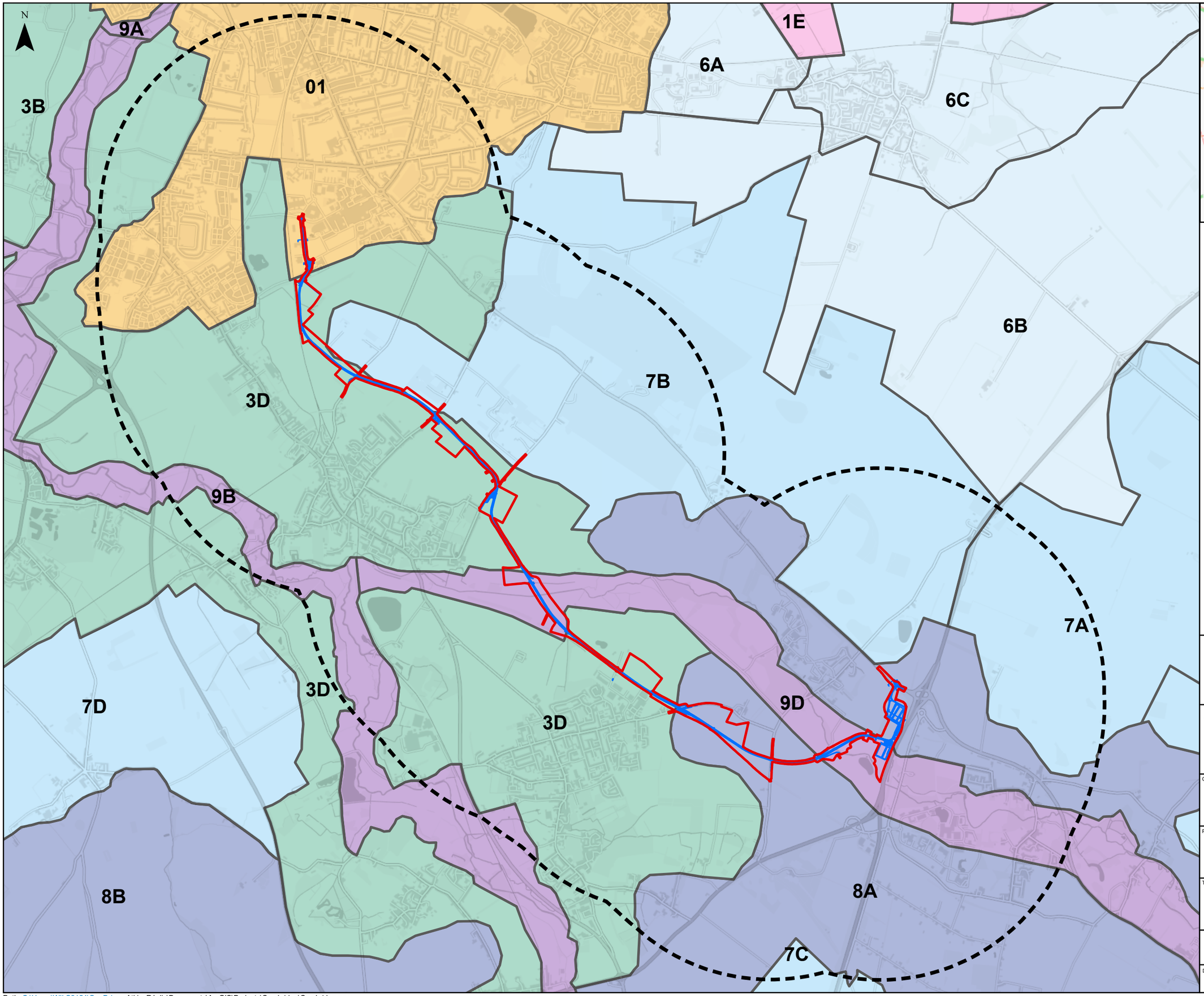
7.3.5 The LCAs identified in the Greater Cambridgeshire Landscape Character Assessment described above, and which are located within the study area are shown on Figure 7.1 and described in Table 7-11.

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Table 7-11 Landscape character areas

LCA	Description	Sensitivity
Cam and Granta Tributaries Lowland Farmland LCA 3D	This LCA comprises much of the west of the study area extending north around Cambridge and is not extensive outwith the study area. The settlements of Shelford, Stapleton and Sawston lie within it as well as scattered farmsteads and residential clusters. There are two Country Parks, Hobson's Park, Nine Wells Nature Reserve, shelterbelt trees and field and road boundary hedgerows. Some woodland is associated with Sawston Hall designed parkland. Hobson's Park and associated Hobson's Park Bird Reserve lies in the setting of Cambridge. The railway lies within the northwest of the LCA and a small section of the A1307 and the M11 and erode some of the rural character. There are many PRoW and Byways and the DNA path in use by cyclists and walkers. Industrial business parks, a dismantled railway and reservoir are other notable elements. As per the methodology criteria it is considered to have medium value and medium susceptibility.	Medium
Eastern Chalk Hills LCA 7A	This LCA comprises the southeast of the study area and is extensive outwith the study area. Gentle rolling hills make up this LCA with large arable fields enclosed by hedgerows. Shelterbelt, woodland and roadside trees are present in a small scale landscape with the chalk hills adjacent. Settlement is sparse, generally well integrated, and a sense of tranquillity is afforded. As per the methodology criteria it is considered to have medium to high value and medium to high susceptibility.	High
Gog Magog Chalk Hills LCA 7B	The LCA comprises the central east part of the study area and extends outwith the study area by approximately the same amount. The Gog Magog Hills, key to the character of the area, lie to the south-east of Cambridge. The landform is gently undulating, with smooth slopes rising up to relatively high, rounded hills, often capped with beech, lime or sycamore woodland. The Gog Magog Hills are one of the highest points around Cambridge and there are long views over the open landscape, framed by woodland blocks and plantations. Views to Cambridge give the area its strong sense of place. The predominant land use is farmland and there is relatively little settlement. Arable fields, some enclosed by hedgerow, are generally medium to large and regular in shape. Woodland belts screen the isolated cottages and farmhouses in the LCA, especially along Granham's Road, Hinton Way and Haverhill Road. Wandlebury Country Park, Magog Down and the Gog Magog Golf Course are important recreational destinations. Wandlebury Ring is an Iron-Age hill fort and Magog Down is an area of chalk downland, surrounded by scrub vegetation and woodland. Byways lead to and along the Roman Road (E2 European Long Distance Path). A railway line crosses the western end of the LCA between Cambridge and Great Shelford and tTraffic on the A1307 Cambridge Road and the A11 detract from the otherwise rural character of the area and reduce tranquillity. The area is unlit at night, apart from street lighting along some residential roads, at road junctions and around farms and isolated residential properties. As per the methodology criteria it is considered to have medium to high value and medium to high susceptibility.	High
Linton Chalk Hills LCA 7C	Only a tiny part of this extensive LCA (part of a farmer's field just south of Brent Ditch) encroaches within the southwest of the study area. No part of the Scheme lies within or adjacent to the LCA and the extent of it is too limited to be representative of a part of the study area. It is included here only to explain the reasons for not considering it further in the assessment.	N/A
Pampisford Lowland Chalklands LCA 8A	The LCA covers much of the southern part of the study area and extends somewhat beyond it. It is a transitional, broad scale landscape rising from the river valley and floodplains to the chalk hills. The fields are large with mature hedgerows. Settlement comprises of Babraham, Great Abington and Little Abington. The area around Babraham Hall and Pampisford Hall is quite well wooded with the former providing the setting for Babraham Research and Granta Park. Within the study area the LCA is bisected by the A11, the A1307 and the A505, which erode the local character, as well as local roads. As per the methodology criteria it is considered to have medium value and susceptibility.	Medium
Cam River Valley - Cambridge LCA 9B	The LCA comprises part of the western study area and extends by over as much again outwith the study area. It contains the River Cam or Granta and its immediate environs between Great Shelford and Little Shelford and associated riparian woodland, moats and weir. As per the methodology criteria it is considered to have an overall medium value and medium susceptibility.	Medium
Granta River Valley LCA 9D	The LCA comprises a relatively narrow band from the central to southern part of the study area and is not extensive beyond it. The LCA contains mostly farmland here, Babraham Park as the LCA abuts the Babraham Research Campus (but does not contain it) before continuing on south beyond the study area. As per the methodology criteria it is considered to have overall medium value and medium susceptibility.	Medium

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Legend

- Red Line Boundary
- Design Plan
- 2km Study Area

Landscape Character Areas

- 0_ Cambridge Urban Area
- 1E-Fulbourn Fen
- 3B-Bourn Tributaries Lowland Farmlands
- 3D-Cam & Granta Tributaries Lowland Farmlands
- 6A-Fen Ditton Fen Edge Chalklands
- 6B-Wilbraham Fen Edge Chalklands
- 6C-Fulbourn Fen Edge Chalklands
- 7A-Eastern Chalk Hills
- 7B-Gog Magog Chalk Hills
- 7C-Linton Chalk Hills
- 7D-Newton Chalk Hills
- 8A-Pampisford Lowland Chalklands
- 8B-Morden to Duxford Lowland Chalklands
- 9A-Cam River Valley - Cambridge
- 9B-Cam River Valley
- 9D-Granta River Valley

Metres

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AtkinsRéalis, Member of the SNC-Lavalin Group
Nova North
11 Bressenden Place
London
SW1E 5BY

Client: GREATER CAMBRIDGE PARTNERSHIP

Project: CAMBRIDGE SOUTH EAST TRANSPORT PHASE 2

Title: LANDSCAPE CHARACTER AREAS

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Rev: 00

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Visual amenity

7.3.6 Representative viewpoints were selected to represent the experience of different types of visual receptor and / or where larger numbers of viewpoints cannot all be included individually (in urban areas or where there are numerous public rights of way) and where visual effects are unlikely to differ. Specific viewpoints were selected to illustrate effects on key views from landscapes of high visual amenity or to illustrate a particular effect or issue.

7.3.7 The visual receptors and their existing views are described and evaluated in Table 7-12.The location of representative viewpoints is shown on Figure 7-2. Photographs illustrating the view from each viewpoint are shown in Appendix 11.1 – Viewpoint Photo Sheets (CD1-10.44).

Table 7-12 Description of viewpoints representing visual receptors

Viewpoint	Receptors represented by viewpoint	Existing view	Sensitivity
VP1	Residents on Babraham Road, Urwin Gardens and users of the permissive bridleway looking south-west	Partially filtered views over arable fields which rise to a chalk ridge that crosses the landscape to the south-west. The ridge and the woodland copse on White Hill form the background of the view. At night, the foreground is lit by street lighting, but the farmland to the south-west, beyond the lit area, is dark. The urban area of Cambridge is a source of sky glow to the west and north. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including arable fields and woodland and few discordant elements.	High
VP2	Staff working in the building on Dame Mary Archer Way and users of PRoW 39 / 47 looking south-west	Open views of grassland surrounded by post and rail fencing in the foreground, framed by the Abcam plc building on Discovery Drive. Arable farmland, partially screened by vegetation lining, Footpath 198 / 2 and the permissive path to Nine Wells Local Nature Reserve, rises to the wooded White Hill in the background. Views north, over Dame Mary Archer Way, are over vacant land towards Francis Crick Avenue and the Royal Papworth Hospital. This view includes typical components of the rural landscape including arable fields and woodland and few discordant elements.	Medium
VP3	VP3: Staff working on the Cambridge Biomedical Campus and users of Francis Crick Avenue looking south	Open views of the tree-lined Francis Crick Avenue and surrounding large-scale new development.	Low
VP4	Users of National Cycle Route 11 / DNA Cycle Path (PPA / 0155) looking south	Open views of arable fields, the DNA Cycle Path and the fencing, overhead line equipment and the raised track of the railway line in the foreground. The wooded Nine Wells Local Nature Reserve is visible in the background. This includes typical components of the rural landscape including arable fields and woodland, but the railway line is a discordant element.	Medium
VP5	Residents on Southwell Drive, Lapwing Avenue and Kingfisher Gardens and visitors to the Cabbage Moor campsite looking east	Extensive views over open farmland. The railway line and associated overhead line equipment crosses the landscape. Nine Wells Nature Reserve and the wooded White Hill can be seen in the background. At night, the foreground is lit by street lighting, but the farmland to the east, beyond Addenbrooke's Road, is dark. Lit moving trains on the railway line can be seen in the distance. The urban area of Cambridge is a source of sky glow to the north-east. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including farmland and woodland, but the railway line is a discordant element.	High
VP6	Visitors to Nine Wells Local Nature Reserve and users of Footpath 198 / 2 looking west	Views of Hobson's Brook and arable farmland in the foreground, with the railway line visible beyond the DNA Cycle Path. Addenbrooke's Road is on a bridge as it crossed the railway line. Buildings at Addenbrooke's Hospital and along Addenbrooke's Road are visible in the mid-distance and are viewed against the skyline. Housing at Trumpington forms the background of the view. Views out of the nature reserve are largely screened by intervening vegetation. This view includes typical components of the landscape on the urban fringe and discordant elements including the railway line and Addenbrooke's Road bridge.	High

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Viewpoint	Receptors represented by viewpoint	Existing view	Sensitivity
VP7	Users of National Cycle Network Route 11 / DNA Cycle Path (PPA / 0155) looking north	The railway line passes west of the viewpoint in the foreground, with open views of arable fields rising to the wooded White Hill and White Hill Farm in the north-east. White Hill Farm, Nine Wells House and White Hill House are visible within the view, partially screened by intervening vegetation. This view includes typical components of the rural landscape including farmland and woodland, but the railway line is a discordant element.	Medium
VP8	Residents at White Hill Farm, Nine Wells House and White Hill House, and users of the permissive bridleway looking south-west	Open views over arable fields, bordered by low hedgerows and sloping down to the railway line and DNA Cycle Path. Residential properties along Addenbrookes Road and the A1301 Shelford Road and a garden centre, partially screened by vegetation, are visible beyond the railway line in the south-west. The Nine Wells Local Nature Reserve and the Cambridge Biomedical Campus are visible in background of views looking north. At night, the foreground is dark, but street lighting along the A1301 and residential side streets and lit moving trains are visible in the background. The urban areas of Cambridge and Shelford are sources of sky glow to the west and north. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including farmland and woodland, but the railway line and urban development are discordant elements.	High
VP9	Residents on A1301 Cambridge Road and adjacent side roads looking east	Open views from the allotments and partially filtered views from residential properties of farmland and the overhead line equipment, and boundary fencing of the railway line. Residential properties in Granham's Road and a footbridge over the railway line are visible in views south-east and the Cambridge Biomedical Campus can be seen in the northeast. The land rises in the background to the chalk ridge of White Hill and Clarke's Hill. At night, views from residential properties across the allotments, farmland and the railway line are relatively dark, although lit moving trains can be seen in views filtered through garden vegetation. Street lighting and lighting in buildings on the Cambridge Biomedical Campus and skyglow above Cambridge are visible in the background to the north-east. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including farmland and woodland, but the railway line and urban development are discordant elements.	High
VP10	Residents on Granham's Road and users of Footpath 198 / 1 looking north-west	Open, filtered and partially screened views from residential properties and the PRoW over farmland and the overhead line equipment, telecommunications mast and substations and boundary fencing of the railway line. Properties on roads adjacent to the A1301 Cambridge Road are visible in the background beyond the railway line looking north-west. The Addenbrooke's Road bridge and residential properties in Trumpington can be seen in distant views north. A woodland belt screens long views north towards White Hill and the Cambridge Biomedical Campus. At night, views from residential properties over farmland and the railway line are relatively dark, although lit moving trains can be seen in views filtered through garden vegetation. Street lighting in Cambridge and Shelford and skyglow above Cambridge are visible in the background to the north-west. The viewpoint is in an area of low district brightness This view has includes typical components of the rural landscape including farmland and woodland, but urban development is a discordant element.	High
VP11	Users of Granham's Road and users of Footpath 39 / 8 looking south-west	Views across Granham's Road and over open countryside and arable farmland with occasional gappy hedgerows, rising to woodland along the top of the chalk ridge, including White Hill, in the background of the view. The intervening rolling landform limits mid-distance views south-west. This view includes typical components of the rural landscape including arable fields, hedgerows and woodland and few discordant elements.	Medium
VP12	Residents and users of Hinton Way looking south	Views across Hinton Way, over open countryside partially screened by intervening garden vegetation from residential properties. The land gently rises to a wooded chalk ridge to the south, which forms the skyline in the view. The rolling landform, hedgerows and woodland vegetation, screen long distance views to the south. At night, the foreground is lit by street lighting, but the farmland to the south, beyond the lit area, is dark. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including arable fields and woodland and few discordant elements.	High

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Viewpoint	Receptors represented by viewpoint	Existing view	Sensitivity
VP13	Residents on Hinton Way looking south-west	Dense hedgerows lining Hinton Way largely screen views over the farmland beyond. Views south-west from residential properties are limited by intervening garden vegetation. Views south are partially screened by the land rising to Fox Hill in the east. At night, the foreground is lit by street lighting. The residential properties along the road are additional sources of light, but this is filtered by garden vegetation and the hedgerows lining the road. The farmland to the south-west, beyond the lit area, is dark. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including farmland, hedgerows and woodland, and few discordant elements.	High
VP14	Residents on Hinton Way and Coppice Avenue looking north-east	Farmland east and west of Hinton Way is largely screened or filtered in views from residential properties on the road by intervening vegetation. Trees and vegetation in the gardens of residential properties on Coppice Avenue filter and partially screen views north-east of an arable field and the wooded background of Clarke's Hill beyond. At night, views north-east over farmland from the back of properties on Hinton Way and Coppice Avenue are dark. Hinton Way is lit and residential properties along the road are additional sources of light, but this is filtered by garden vegetation and the hedgerows lining the road. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including arable fields, hedgerows and woodland and few discordant elements.	High
VP15	Residents on Mingle Lane, Duke's Meadow and the western end of Gog Magog Way and visitors to St Andrew's Church and Stapleford Cemetery looking north-east	Long views of open countryside partially screened by garden vegetation at residential properties. Arable farmland gently rises to the wooded Fox Hill in the background. Properties on Hinton Way and the wooded Clarke's Hill are visible in the distance in views north. At night, views north-east over farmland from the back of residential properties are dark. Street lighting on Hinton Way and skyglow above Cambridge are visible in the background to the north. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including arable fields and woodland and few discordant elements.	High
VP16	Residents on Haverhill Road, Chalk Hill and at the eastern end of Gog Magog Way looking north-east	Long views from residential properties of the open countryside to the north and east are partially filtered by intervening garden vegetation. Views north-east from Haverhill Road and the adjacent footway towards the wooded Fox Hill, Magog Down and Little Tree Hill are open due to the absence of trees and hedgerows. Street lighting in Stapleford ends near the viewpoint and views north-east over farmland are dark. Skyglow above Cambridge is visible in the background to the north. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including arable fields and woodland and few discordant elements.	High
VP17	Residents of Middlefield Cottage, South Hill House, the House on the Hill and other residences on Fox Hill and users of Haverhill Road looking south and south-west	Expansive views of open arable fields from Haverhill Road, with houses in Stapleford visible beyond. The view from residential properties on Fox Hill looking south-west is over farmland, gently sloping down to Stapleford and the wooded background. Views from residential properties on Fox Hill looking south are over open, arable farmland. Views from most properties on Fox Hill are partially screened or filtered by intervening garden vegetation. At night, views south-west are over unlit farmland but street lighting and lighting in residential properties in Stapleford are visible in the background. Views south-east are over dark countryside. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including arable fields and woodland and few discordant elements.	High
VP18	Visitors to Magog Down, users of Footpath 212 / 3 and residents of Gog Magog Cottages looking south-west	Panoramic views over a gently rolling landscape of farmland, hedgerow and woodland. Stapleford is visible in distant views south-west and residential properties on Fox Hill are just discernible set within woodland, in views west. At night, street lighting in Stapleford is discernible in the background beyond the dark intervening farmland. The viewpoint is in an area of low district brightness. This view provides a panoramic view over the rural South Cambridgeshire landscape and is identified as a strategic view in the Cambridge Local Plan.	High

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Viewpoint	Receptors represented by viewpoint	Existing view	Sensitivity
VP19	Users of Bridleway 212 / 2 and residents on Haverhill Road looking east	Panoramic views of large arable fields, with gappy, low hedgerows. The land rises to Magog Down in the background. Residential properties on Haverhill Road and Fox Hill are partially screened by garden and roadside vegetation in views north. At night, views from the backs of residential properties over farmland are dark. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including arable fields, hedgerows and woodland and few discordant elements.	High
VP20	Users of Bridleway 212 / 2 looking west	Panoramic open views of flat, arable fields separated by the farm track that forms the bridleway. The course of the tree-lined River Granta is visible in views south and residential properties on the edge of Stapleford can be seen in views filtered through intervening vegetation. A powerline crosses the view. This view includes typical components of the rural landscape including arable fields, trees and woodland but the power line is a discordant element.	Medium
VP21	Users of Cambridge Road looking north-east	Panoramic views of flat arable fields, gently rising beyond the course of the tree-lined River Granta towards the chalk ridge in the north-east. Vegetation screens the Sawston sewage works in views east, but a mobile phone mast is visible above the trees. This view includes typical components of the rural landscape including arable fields and woodland with few discordant elements, but the mobile phone mast is a discordant element.	Low
VP22	Users of Restricted Byway 12 / 10 and residents of North Farm looking south-west	Close views south-west over arable fields from the PRoW towards new residential development on the eastern edge of Sawston. Filtered views south from North Farm over grassland, an earthwork and intervening vegetation towards the business units on the north-eastern edge of Sawston. Panoramic views of the arable farmland to the west and east. At night, the immediate surroundings of North Farm are dark, but there are close views of the street lighting on the business units and residential properties in Sawston, beyond. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including farmland and woodland, but urban development is a discordant element.	High
VP23	Users of Bridleway 12 / 12 (Rowley Lane) looking south-west	Panoramic views of open, arable farmland. A gentle rise in the landform south of Rowley Lane screens most mid-distance views south-west from the lane, but in places development on the edge of Sawston is visible in the background. This view includes typical components of the rural landscape including farmland, hedgerows and woodland, but urban development is a discordant element.	Medium
VP24	Residents on Babraham Road, Lynton Way and Stanley Webb Close looking east and south-east	Panoramic views from the cycleway and filtered and clear views from residential properties across Babraham Road and open, arable farmland. Woodland on the Babraham Estate forms the background to the view east. Long views to the wooded chalk ridge to the north and east. A powerline crosses the distant view east. The Hawthorns development on the northern side of Babraham Road is brightly lit, but views east over farmland are dark apart from the brightly lit Babraham institute, visible in the background. Skyglow is apparent above Cambridge in the north and above the A11 and Fourwentways roundabout in the east. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including farmland and woodland, but a powerline and urban development are discordant elements.	High
VP25	Users of Footpaths 179 / 1, 179 / 2, 196 / 12 and 196 / 14 looking north-east	Open and long views over arable fields, separated by fragmented hedgerows. Sawston is clearly visible in the west, but buildings on the Welcome Genome Campus and residential properties on Sawston Road are largely screened by woodland and vegetation lining the former railway line in views north-east. The water tower on Rivey Hill is visible, partially screened by trees on the horizon in the east. Views north from the residential property, The Wych (at the eastern end of PRoW 179 / 2), are screened by vegetation growing along the former railway line and views west towards Sawston are screened by agricultural buildings within the property boundary. This view includes typical components of the rural landscape including farmland, hedgerows and woodland and few discordant elements.	Medium
VP26	Users of Sawston Road and the cycleway looking west	Panoramic views over open arable farmland towards the edge of Sawston. Woodland on gently rising ground forms the background in the south-west. This view includes typical components of the rural landscape including farmland, hedgerows and woodland, with few discordant elements.	Medium

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Viewpoint	Receptors represented by viewpoint	Existing view	Sensitivity
VP27	Users of Footpath 12 / 9 and residents in properties north of Sawston Road looking south	Open views over the cycle path, arable fields, separated by gappy hedgerows. Views from residential properties screened and filtered by intervening vegetation within the gardens. Foreground and mid-distance views over farmland are dark but street lighting in Sawston is clearly visible in the background to the west. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including farmland, hedgerows and woodland and few discordant elements.	High
VP28	Users of Sawston Road and High Street looking east	Expansive open views over arable fields. The wooded corridor of the River Granta can be seen in the north-east. Vehicles on the A505 crossing the A11 can be seen in the background looking south-east, but the roads are largely screened by roadside vegetation. Wind turbines are discernible in the far-distance, looking north-east. This view includes typical components of the rural landscape including farmland and woodland but vehicles on the A505 are a discordant element.	Low
VP29	Residents at the northern end of High Street, Babraham and Oak Lane and users of the A1307 Cambridge Road looking south-east	Open views of rolling, arable farmland in the south-east and the A1307 and the wooded chalk ridge to the north-east. Residential properties on Oak Lane and the surrounding woodland partially screen the Two Acre Plantation immediately east of the A11 Travel Hub site. Planting along the A11 forms the wooded background. The A1307 is unlit between the Fourwentways roundabout and the High Street. Foreground and mid-distance views from residential properties over farmland are dark, but street lighting at the Fourwentways roundabout and in the service station nearby in the east is visible in filtered views in the background. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including farmland and woodland but the A1307 is a discordant element.	High
VP30	Users of Footpath 12 / 4 looking south and south-east and Footpath 4 / 3 looking west	Open, panoramic views of arable fields, sloping down to the tree-lined River Granta corridor. The A11 dual carriageway is well screened by dense, mature roadside vegetation, but gantries and occasional vehicles can be discerned in the background. Views west from Footpath 4 / 3 are contained by woodland lining the A11. This view includes typical components of the rural landscape including farmland and woodland but the A11 infrastructure and moving vehicles are discordant elements.	Medium
VP31	Residents at Home Farm Cottages, Pampisford Hall and users of Footpath 179 / 4 looking north-east	Views over arable farmland with fragmented hedges and framed by woodland. The land rises towards the north-east. Telegraph lines are visible in the view. At night, views over farmland are dark. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including farmland and woodland and few discordant elements.	High
VP32	Residents and road users on High Street, Babraham east of the River Granta looking south.	Open views of a grass meadow in the foreground looking towards the tree-line River Granta. The view is framed by woodland and by residential properties along the Home Farm access road and Footpath12 / 4. A powerline crosses the meadow. At night, views over farmland are dark. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including farmland and woodland and few discordant elements.	High
VP33	Residents and road users on High Street, Babraham west of the River Granta looking south.	Open views of a grass meadow in the foreground framed by a woodland belt and woodland growing along the River Granta. A line of vegetation follows a former watercourse which crosses the view in a shallow valley. A slight rise in the land allows views of the farmland in the distance. At night, views over farmland are dark. The viewpoint is in an area of low district brightness. This view includes typical components of the rural landscape including farmland and woodland and few discordant elements.	High

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AtkinsRéalis, Member of the SNC-Lavalin Group
Nova North
11 Bressenden Place
London
SW1E 5BY

ATKINS
Member of the SNC-Lavalin Group

Client

GREATER CAMBRIDGE PARTNERSHIP

Project

CAMBRIDGE SOUTH EAST TRANSPORT
PHASE 2

Title

REPRESENTATIVE VIEWPOINTS AND ZONE OF THEORETICAL VISIBILITY IN YEAR 1 AND 15 OF OPERATION

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7.4 Impact assessment

Construction phase impacts

7.4.1 Table 7-13 provides an assessment of impacts during construction and the potential effects on the landscape and visual receptors.

Table 7-13 Construction phase impact assessment

Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
Cam and Granta Tributaries Lowland Farmlands LCA 3D	Medium	Construction activity will occur within this LCA.	GEN1	Production of CEMP and CoCP	Minor	The northern part of the LCA is in close proximity to the recent and ongoing development of the Cambridge Biomedical Campus and the Cambridge Urban LCA so construction activity will not be new here. And the settlements are not directly affected by construction activity due to the built environment. In limited locations to the east of the LCA the construction will have more of an impact where it results in impact on elements of the landscape including localised clearance of vegetation to facilitate the proposal. However, for the LCA as a whole the magnitude of impact is minor.	Slight adverse Not significant
			LV1	Construction Lighting Plan			
Eastern Chalk Hills LCA 7A	High	No construction activity will be undertaken within the LCA but the travel hub is in close proximity.	GEN1	Production of CEMP and CoCP	Minor	No construction activity will be undertaken in this LCA and no direct changes to the elements and features of the LCA will result. However, the construction, including construction lighting, associated with the travel hub will be in close proximity to a small part of the LCA affording some localised impact. For the LCA as a whole the impact is not significant.	Slight adverse Not significant
			LV1	Construction Lighting Plan			
Gog Magog Chalk Hills LCA 7B	High	The introduction of construction works will occur along part of the boundary of the LCA.	GEN1	Production of a CEMP and CoCP	Minor	The LCA has high susceptibility to change due to the presence of valued landscape, ecological and heritage characteristics and scenic quality. The landscape has a low ability to accommodate change due to the large rural expanses of land. Construction will take place along part of the boundary of the LCA. Elsewhere, it will occur close to, but outside the boundary of the LCA. Construction lighting will temporarily increase the extent of lighting in the relatively dark landscape. There will be a reduction in levels of tranquillity, already affected by the A1307 Cambridge Road. Effects will be limited to a small proportion of the LCA by woodland on the chalk hills and variations in the local landform. The high sensitivity of the LCA, combined with the minor magnitude of change, will result in slight adverse effects which are not significant.	Slight adverse Not significant
			LV1	Construction Lighting Plan			
Pampisford Lowland Chalklands LCA 8A	Medium	Construction activity will occur in this LCA, including part of the travel hub.	GEN1	Production of a CEMP and CoCP	Minor	Construction activity, including for part of the travel hub and associated lighting, will directly impact two localised areas within this LCA. For the area where part of the travel hub will be constructed, lighting and vehicle activity are present due to the A11 and A1307 elevated junction, and nearby motel which reduce the magnitude impact. Further west the construction will also be present and result in some localised reduction in vegetation. For the LCA as a whole there is not considered to be a significant effect due to existing landscape detractors and the extent of the LCA beyond the construction locations.	Slight adverse Not significant
			LV1	Lighting Construction Plan			

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
Cam River Valley – Cambridge LCA 9B	Medium	No construction activity associated with the Scheme will occur in this LCA.	N/A	N/A	No change	No construction activity will be undertaken in this LCA and no direct changes to the elements and features of the LCA will result.	Neutral
Granta River Valley LCA 9D	Medium	Construction activity will occur in two separate locations within this LCA including part of the travel hub.	GEN1	Production of a CEMP and CoCP	Major	Due to the small scale enclosed character of the rural landscape here which sometimes contrast with the arable landuse, construction activity, including lighting and moving plant, associated with the travel hub and bridges over the River Granta, and reduction in vegetation, field boundaries and riparian woodland, will have a major impact.	Large adverse Significant
			LV1	Lighting Construction Plan			
VP1 Residents on Babraham Road, Urwin Gardens and users of the bridleway looking southwest.	High	The introduction of construction works between Francis Crick Avenue and Granham's Road, resulting in a new landscape feature, increased noise and activity.	GEN1	Production of a CEMP and CoCP	No change	The construction works will be screened by the intervening chalk ridge and woodland between the works and receptors. There will be no change in the view. At night, the construction works will be screened from receptors by the intervening chalk ridge and woodland. No direct lighting will be observable and night glow will be imperceptible in the context of the Cambridge Biomedical Campus and Trumpington. There will be no change in the view and effects will be neutral. The high sensitivity of the receptor combined with no change will result in neutral effects during the day and at night.	Neutral Not significant
VP2 Staff working in the building on Dame Archer Way and users of the PRoW	Medium	The introduction of construction works on Francis Crick Avenue and adjacent to Addenbrookes Road and the construction compound 7 adjacent to Nine Wells Nature Reserve.	GEN1	Production of a CEMP and CoCP	Minor	Construction works will be visible from the western end of Dame Mary Archer Way and the Abcam building on Discovery Drive. Views of the works during the day will be partially filtered by intervening buildings and vegetation. The magnitude of change will be minor. The medium sensitivity of the receptor combined with the minor magnitude of change will result in slight adverse effects which are not significant. Night time effects have not been assessed as the receptor is not residential.	Slight adverse Not significant
VP3 Staff working on the Cambridge Biomedical Campus and users of Francis Crick Avenue looking South	Low	The introduction of construction works along Francis Crick Avenue resulting in a new landscape feature, increased noise and activity.	GEN1	Production of a CEMP and CoCP	Major	The construction works on Francis Crick Avenue will be visible in close views from the footpath and road and Cambridge Biomedical Campus buildings. The works will affect the full width of the road and will be the dominant feature in the view during the daytime. The low sensitivity of the receptor combined with the moderate magnitude of change will result in slight adverse effects which are not significant. Night time effects have not been considered.	Slight adverse Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
VP4 Users of National Cycle Route 11 / DNA Cycle Path (PPA / 0155) looking South	Medium	The introduction of construction works at the Northern point of the DNA cycle path, the Hobsons Conduit crossing and construction compound 7 nearby.	GEN1	Production of a CEMP and CoCP	Moderate	The DNA Cycle Path will remain open during the majority of the construction period, but a temporary diversion may be needed during specific operations. There will be close views of construction Compound 7 nearby and of the construction of the Hobson's Conduit crossing and route. The works will form the dominant feature of the view. With the ability to divert the cycle path and maintenance of access, the medium sensitivity of the receptor, combined with the moderate magnitude of change, for these receptors will result in large adverse effects (not moderate as the matrix suggests) which are significant. Night time effects have not been considered.	Large adverse Significant
VP5 Residents on Southwell Drive, Lapwing Avenue and Kingfisher Gardens and visitors to the Cabbage Moor campsite looking east.	High	The introduction of construction works along the DNA cycle path, Hobsons Conduit crossing and construction compound 7.	GEN1	Production of a CEMP and CoCP	Minor	During the day, the construction works on the Proposed Development will be visible in the background of the view, partly screened by intervening vegetation and the fencing and overhead line equipment of the intervening railway line. At night, lighting in construction compound 7 and occasional task lighting (when working hours overlap with hours of darkness) will extend the lit area of the Cambridge Biomedical Campus south, into what is currently farmland. While perceptible, the change will be small in the context of the lit urban edge of Cambridge and will be seen beyond the street lighting along Addenbrooke's Road and lit trains moving through the landscape. The high sensitivity of the receptor, combined with the minor magnitude of change will result in slight adverse effects on the receptor, which are not significant.	Slight adverse Not significant
			LV1	Construction Lighting Plan			
VP6 Visitors to Nine Wells Nature Reserve and users of Footpath 196 / 2 looking west.	High	The introduction of construction works on the Hobson's Conduit crossing and construction compound 7, which result in increased noise, light and activity.	GEN1	Production of a CEMP and CoCP	Moderate	There will be close views of the construction of the Hobson's Conduit crossing and construction compound 7 from a short section of footpath 198 / 2, but the works will be screened from the nature reserve by intervening vegetation. Due to the high sensitivity of the receptor and the close views of the construction works, combined with the moderate change of impact, there will be moderate effects on the receptor, which are significant. Night time effects have not been considered as it is assumed that visitors will only visit in the daytime.	Moderate adverse Significant
VP7 Users of National Cycle Network Route 11 / DNA Cycle Path (PPA / 0155) looking north	Medium	The introduction of construction works between the Hobson's Conduit crossing and Granham's Road crossing, and construction compound 6. This will increase noise, lighting and activity.	GEN1	Production of a CEMP and CoCP	Moderate	The DNA Cycle Path and busway diverge south of the viewpoint location, and woodland adjacent to Granham's Road will screen the construction works and construction compound 6 from much of the cycle path. However, there will be close views of the construction of the Proposed Development from a section of the DNA Cycle Path adjacent to the route. The medium sensitivity of the receptor with the moderate magnitude of change will create moderate adverse effects on the receptor which are significant.	Moderate adverse Significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
VP8 Residents at White Hill Farm, Nine Wells House and White Hill House, and users of the permissive bridleway looking south-west	High	The introduction of construction works between the Hobson's Conduit crossing and Granham's Road crossing, and construction compound 6. This will increase noise, lighting and activity.	GEN1 LV1	Production of a CEMP and CoCP Construction Lighting Plan	Moderate	During the daytime, the construction of the busway will be partially screened by an existing hedgerow in wide open views from White Hill Farm. Views from other residential properties on White Hill will largely be filtered by garden vegetation. Construction compound 6 will be visible in oblique views from White Hill Farm and filtered views from the adjacent properties. The works will form a noticeable feature in the view. At night, lighting in construction compound 6 and occasional task lighting along the busway will be seen in filtered and oblique views from residential properties on White Hill as a brightly lit area against a dark background of woodland. The additional lighting will be a noticeable new feature in the view. The high sensitivity of the receptor, combined with the moderate magnitude of change will result in large adverse effects which are significant.	Moderate adverse Significant
VP9 Residents on A1301 Cambridge Road and adjacent side roads looking east	High	The introduction of construction works between the Granham's Road and Hinton Way crossing and construction compound 6. This will increase noise, lighting and activity.	GEN1 LV1	Production of a CEMP and CoCP Construction Lighting Plan	Minor	During the daytime, there will be mid-distance views of the construction works on the busway across farmland and beyond the railway line from residential properties and the adjacent allotments. The works will be perceptible but will not alter the overall balance of the view. They will be seen in the context of the overhead line equipment, fencing and footbridge associated with the railway line. The magnitude of change will be minor. At night, lighting for construction compound 6 will be screened from receptors by a woodland belt immediately to the south-west of the compound and by intervening garden vegetation. Occasional task lighting may be visible along the busway, beyond the railway line. The high sensitivity of the receptor combined with the minor magnitude of change will result in slight adverse effects which are not significant.	Slight adverse Not significant
VP10 Residents on Granham’s Road and users of Footpath 198 / 1 looking north-west	High	The introduction of construction works Northwest of Granham's Road and construction compound 6. This will increase noise, lighting and activity.	GEN1 LV1	Production of a CEMP and CoCP Construction Lighting Plan	Minor	There will be mid-distance views of the construction works on the busway beyond Granham’s Road and arable farmland. They will be perceptible but will not alter the overall balance of the view. Construction compound 6 will largely be screened by an intervening woodland belt and vegetation bordering Granham’s Road, which curves away from the properties. At night, lighting on construction compound 6 will be screened from receptors by a woodland belt immediately to the south-west of the compound and by intervening garden vegetation. Occasional task lighting may be visible along the busway, but it will be seen against the lit background of the Cambridge Biomedical Campus. The high sensitivity of the receptor combined with the minor magnitude of change will result in slight adverse effects which are not significant.	Slight adverse Not significant
VP11 Users of Granham’s Road and users of Footpath 39 / 8 looking south-west	Medium	The introduction of construction works along the DNA cycle path, Granham's Road and surrounding agricultural land and construction compound 6. This will increase noise, lighting and activity.	GEN1	Production of a CEMP and CoCP	No change	The construction works will be screened by the intervening chalk ridge and woodland between the works and receptors. Due to the distance between the receptor and the works, combined with the existing screening, there will be no change which will have a neutral effect which is not significant. Night time effects have not been considered as it is assumed that visitors will only visit in the daytime.	Neutral Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
VP12 Residents and users of Hinton Way looking south	High	The construction works will be screened by the intervening chalk ridge and woodland between the works and receptors.	GEN1	Production of a CEMP and CoCP	No change	The construction works will be screened by the intervening chalk ridge and woodland between the works and receptors. At night, the construction works will be screened from receptors by the intervening chalk ridge and woodland and any night glow will be imperceptible in the context of Stapleford.	Neutral Not significant
VP13 Residents on Hinton Way looking south-west	High	The introduction of construction compound 5 and works at the Hinton Way crossing. This will create increased noise, lighting and activity within the landscape setting.	GEN1	Production of a CEMP and CoCP	Minor	During the daytime, the construction works will largely be screened from view by intervening woodland, hedgerow and garden vegetation and the western end of Fox Hill. There may be filtered views of construction and construction Compound 5 and adjacent materials storage compound from upper-floor windows of the properties adjacent to the viewpoint. The magnitude of change will be minor. At night, views of lighting on construction compound 5 will be screened or filtered from receptors by the hedgerow along Hinton Way and intervening garden vegetation. When visible, the lit compound will be seen against a backdrop of street lighting on Hinton Way. The high sensitivity of the receptor combined with the minor magnitude of change will result in slight adverse effects which are not significant.	Slight adverse Not significant
			LV1	Construction Lighting Plan			
VP14 Residents on Hinton Way and Coppice Avenue looking north-east	High	The introduction of construction works on Hinton Way and the agricultural fields both North and South of it combined with the construction compound 5 will increase noise, lighting and activity within the landscape setting.	GEN1	Production of a CEMP and CoCP	Major	During the daytime, views of the construction from properties on Coppice Avenue will be partially filtered or screened by intervening garden vegetation but visible from upper-floor windows. Views of the construction of the busway, the Great Shelford Stop and of construction compound 5 and adjacent materials storage compound will largely be oblique and screened at ground level from residential properties on Hinton Way by the hedgerows bordering the road but will be visible from upper-floor windows. Construction activity will result in a substantial alteration to existing views over farmland from Coppice Avenue. During the night time, views of lighting on construction compound 5 will be screened or filtered from receptors by the hedgerow along Hinton Way and intervening garden vegetation. The construction of the Proposed Development will be clearly visible from the upstairs window of 154 Hinton Way facing north-east. The lit compound will be seen against a dark background. Occasional task lighting may be visible along the Proposed Development. The high sensitivity of the receptor combined with the major magnitude of change will result in large adverse effects which are significant.	Large adverse Significant
			LV1	Construction Lighting Plan			
VP15 Residents on Mingle Lane, Duke's Meadow and the western end of Gog Magog Way and visitors to St Andrew's Church and Stapleford Cemetery looking north-east	High	The introduction of construction activity between Hinton Way and Haverhill Road which will increase the level of noise, lighting and activity within the landscape setting.	GEN1	Production of a CEMP and CoCP	Moderate	During the daytime, the construction of the busway and materials storage compound will be visible beyond intervening hedgerows from properties on Mingle Lane, Duke's Meadow and the western end of Gog Magog Way and from Stapleford Cemetery and the churchyard of St Andrew's, Stapleford. The works will be a noticeable element in the panoramic view, but partially screened or filtered by intervening vegetation. At night time, occasional task lighting will be visible along the busway, temporarily introducing lighting into views over the dark landscape. Due to the combination of the receptor's high sensitivity and the moderate magnitude of change, there will be moderate adverse effects on the receptor which are significant.	Moderate adverse Significant
			LV1	Construction Lighting Plan			

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
VP16 Residents on Haverhill Road, Chalk Hill and at the eastern end of Gog Magog Way looking north-east	High	The introduction of construction works on Haverhill Road and construction compound 4 will increase noise, lighting and activity within the landscape setting.	GEN1	Production of a CEMP and CoCP	Major	At daytime, there will be close views of the construction of the busway and the Stapleford Stop and construction compound 4 and adjacent materials storage compound from residential properties on Haverhill Road, adjacent to the route. The construction works will be visible in filtered or oblique views from properties on Haverhill Road, south of the Proposed Development, on Chalk Hill and on the eastern end on Gog Magog Way. There will be wider and more open views of construction activity from upper-floor windows at these properties. The construction works will form the dominant focus in the view. At night, lighting on construction compound 4 will be clearly visible from residential properties on Haverhill Road, adjacent to the route and in filtered or oblique views from properties on Haverhill Road, south of the Proposed Development, Chalk Hill and the eastern end of Gog Magog Way. The lit compound will be a noticeable feature in the view, seen against a dark background. Occasional task lighting may be visible along the busway. The combination of high sensitivity and the major magnitude of change will result in large adverse effects on the receptor, which are significant.	Large adverse Significant
			LV1	Construction Lighting Plan			
VP17 Residents of Middlefield Cottage, South Hill House, the House on the Hill and other residences on Fox Hill and users of Haverhill Road looking south and south-west	High	The introduction of construction works on Haverhill Road and within the agricultural fields either side, and construction compound 4 will increase noise, lighting and activity within the landscape setting.	GEN1	Production of a CEMP and CoCP	Moderate	During the daytime, the construction of the busway and materials storage compound will be visible in open and partially screened views from Haverhill Road and residential properties on Fox Hill looking south-west. The works will be a noticeable element within the panoramic view from these properties. From Middlefield and other properties looking south, the construction works will be visible in mid-distant views, framed by woodland. At night, there will be oblique views, filtered through intervening vegetation, of lighting on construction compound 4, but it will be seen against the lit backdrop of Stapleford. Occasional task lighting may be visible along the busway. The combination of high receptor sensitivity and a moderate magnitude of change will result in a moderate adverse effect which is significant.	Moderate adverse Significant
			LV1	Construction Lighting Plan			
VP18 Visitors to Magog Down, users of Footpath 212 / 3 and residents of Gog Magog Cottages looking south-west	High	The introduction of construction works between Hinton Way and Sawston, and construction compound 4, resulting in a new landscape feature, increased noise and activity.	GEN1	Production of a CEMP and CoCP	Minor	During the daytime there will be open, distant views of the construction of the busway from Magog Down, many of the footpaths crossing the area and upper floor windows at Gog Magog Cottages. Construction activity will constitute a small element within the wider panorama and will not alter the balance of features comprising the existing view. At night, lighting on construction compound 4 will be discernible in distant views from Gog Magog Cottages against the lit background of Stapleford. Due to the high sensitivity of the receptor combined with the minor magnitude of change, there will be a slight adverse effect which is not significant.	Slight adverse Not significant
			LV1	Construction Lighting Plan			

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
VP19 Users of Bridleway 212 / 2 and residents on Haverhill Road looking east	High	The introduction of construction works at the River Granta crossing, within the surrounding agricultural fields and public rights of way, and construction compound 4 which will result in a new landscape feature, lighting, noise and activity.	GEN1	Production of a CEMP and CoCP	Major	During the daytime, the bridleway will remain open during construction, but a short section may be temporarily diverted where it is immediately adjacent to the works. There will be close views of the construction of the busway, materials storage compound and River Granta (Stapleford) Crossing from the bridleway where the busway crosses the PRoW. There will be mid-distance, filtered views of construction from the southern end of Haverhill Road and more open mid-distance views from much of the PRoW. Construction compound 4 will be visible in the distance from the PRoW. The construction works will be the dominant feature in the view. At night, lighting on construction compound 4 will be screened by intervening buildings and vegetation from residential properties at the southern end of Haverhill Road, but occasional task lighting may be visible along the busway. Due to the combined high sensitivity of the receptor and the major magnitude of change, there will be a large adverse effect which is significant.	Large adverse Significant
			LV1	Construction Lighting Plan			
VP20 Users of Bridleway 212 / 2 looking west	Medium	The introduction of construction works at the River Granta crossing, within the surrounding agricultural fields and public rights of way, and construction compound 4 which will result in a new landscape feature, lighting, noise and activity.	GEN1	Production of a CEMP and CoCP	Major	The bridleway will remain open during construction, but a short section may be temporarily diverted where it is immediately adjacent to the works. There will be close views of the construction of the busway, materials storage compound and River Granta (Stapleford) Crossing from the bridleway where the busway crosses the PRoW and mid-distance, filtered and open views from the rest of the PRoW to the east. The construction works will be the dominant feature in the view. Due to the combined medium sensitivity of the receptor and the major magnitude of change, there will be a large adverse effect which is significant. Night time effects have not been considered as it is assumed that visitors will only visit in the daytime.	Large adverse Significant
VP21 Users of Cambridge Road looking north-east	Low	The introduction of construction works between Haverhill Road and Sawston Road crossings which will result in a new land feature and increased noise and activity.	GEN1	Production of a CEMP and CoCP	Minor	The majority of the construction works will be screened by a woodland belt running along the former railway line (north-east of the viewpoint), around the waste water treatment works and along the western boundary of the business units in Sawston. Cranes might be visible above the woodland but would form a small element in the view. Due to the combined low sensitivity of the receptor and the minor magnitude of change, there will be a slight adverse effect which is not significant. Night time effects have not been considered as these are not residential receptors.	Slight adverse Not significant
VP22 Users of Restricted Byway 12 / 10 and residents of North Farm looking south-west	High	The introduction of construction works at North Farm, its surrounding land and at Sawston Road, and construction compound 3 will create new features within the landscape and result in increased noise, lighting and activity.	GEN1	Production of a CEMP and CoCP	Moderate	During the daytime the construction works will run through farmland at North Farm and will cross the PRoW. The bridleway will remain open during construction, but a short section will be temporarily diverted where it is immediately adjacent to the works. There will be close views of the construction of the busway, construction compound 3 and adjacent materials storage compound from the byway and the farmhouse. Some views from the farmhouse will be partially filtered through intervening garden vegetation and an earth bank between the farmhouse and the construction works will partially screen the works at ground level. Overall construction activity will form the dominant element in views from the PRoW and the farm. At night, lighting on construction compound 3 and occasional task lighting along the busway will be visible from North Farm. The lighting will be seen in the context of the lit business units south of the busway. Due to the combination of high sensitivity and a moderate magnitude of change, there will be a moderate adverse effect which is significant.	Moderate adverse Significant
			LV1	Construction Lighting Plan			

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
VP23 Users of Bridleway 12 / 12 (Rowley Lane) looking south-west	Medium	The introduction of construction works at Sawston Road and the surrounding area and construction compound 3, will create a new landscape feature and result in increased noise, lighting and activity.	GEN1	Production of a CEMP and CoCP	Minor	Views of the construction of the busway, construction compound 3 and adjacent materials storage compounds here and by Sawston Road from the bridleway will largely be screened by the intervening landform between the viewpoint and the Proposed Development. There will be occasional mid-distance views from short sections of the PRoW where variations in the intervening landform allow. The combination of medium sensitivity and a minor magnitude of change will result in slight adverse effects which are not significant.	Slight adverse Not significant
VP24 Residents on Babraham Road, Lynton Way and Stanley Webb Close looking east and south-east	High	The introduction of construction works at the Sawston Road crossing and agricultural fields south of this as well as construction compound 2 which will produce new landscape features and increase noise, lighting and activity within the landscape setting.	GEN1	Production of a CEMP and CoCP	Major	There will be close views of the construction of the busway and the Sawston stop and of construction compound 2 and material storage compounds from the residential properties (The Hawthorns) on the northern side of Babraham Road and more distant, filtered and mainly oblique views from residential properties south of Babraham Road. The construction works will be the dominant element in the view from The Hawthorns. At night, the lit construction compound 2 will be visible from The Hawthorns. It will be viewed beyond the brightly lit foreground, but against the dark farmland in the background. Occasional task lighting along the busway may be visible from The Hawthorns and residential properties south of Babraham Road. The combination of high sensitivity and a major magnitude of change will result in large adverse effects which are significant.	Large adverse Significant
			LV1	Construction Lighting Plan			
VP25 Users of Footpaths 179 / 1, 179 / 2, 196 / 12 and 196 / 14 looking north-east	Medium	The introduction of construction works in agricultural land south of Sawston Road. This will be a new landscape feature and will increase noise and activity within the setting.	GEN1	Production of a CEMP and CoCP	Moderate	There will be mid-distance views of the construction of the busway and the Sawston stop and of materials storage areas. Some views will be partially filtered through intervening vegetation. Construction activity will be a noticeable element of the view. Night time effects have not been considered as it is assumed that visitors will only visit in the daytime. The combination of medium sensitivity and a moderate magnitude of change will result in moderate adverse effects which are significant.	Moderate adverse Significant
VP26 Users of Sawston Road and the cycleway looking west	Medium	The introduction of construction works at the Sawston Road crossing and in fields north of this as well as construction compound 2, creating a new landscape feature which will increase noise, lighting and activity.	GEN1	Production of a CEMP and CoCP	Major	The cycleway will remain open during construction, but a short section may be temporarily diverted where it crosses the busway. There will be open views of the construction of the busway and Sawston stop and of construction compound 2 and materials storage area from the cycleway and road. The construction works will be the dominant feature in the view. The combination of medium sensitivity and a major magnitude of change will result in moderate effects on the receptor which are significant.	Moderate adverse Significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
VP27 Users of Footpath 12 / 9 and residents in properties north of Sawston Road looking south	High	The introduction of construction works at the High Street crossing and in the fields west of this as well as construction compound 2 will create a new landscape feature which will increase noise, lighting and activity within the setting.	GEN1	Production of a CEMP and CoCP	Moderate	The footpaths will remain open during construction, but a short section of Footpath 12 / 9 may be temporarily diverted where it crosses the busway and materials storage compounds which will be located on either side of the busway. There will be close views of the construction of the busway from Footpath 12 / 9 where the route crosses the footpath. Views of construction activity from the residential properties north of the road will largely be filtered or screened by garden vegetation. The construction works will be a noticeable feature in the view from the PRoW. During the night time, occasional task lighting along the busway and oblique views of lighting on construction compound 2 will be visible in filtered views from residential properties. The lit compound will be seen against a backdrop of street lighting in Sawston. The combination of high sensitivity with a moderate magnitude of change will result in a moderate adverse effect on the receptor which is significant.	Moderate adverse Significant
			LV1	Construction Lighting Plan			
VP28 Users of Sawston Road and High Street looking east	Low	The introduction of construction works at the southern River Granta crossing and the A11 Travel Hub to the east will create a new landscape feature and increase noise and activity in the setting.	GEN1	Production of a CEMP and CoCP	Moderate	There will be clear views of the construction of the busway and the River Granta (Babraham) Crossing from the road, but the construction of the A11 Travel Hub will be screened by vegetation lining the River Granta. The construction works will be a noticeable feature in the view. The combination of low sensitivity and a moderate magnitude of change will result in a moderate adverse effect (not slight as the matrix suggests) on the receptor which is significant.	Moderate adverse Significant
VP29 Residents at the northern end of High Street, Babraham and Oak Lane and users of the A1307 Cambridge Road looking south-east	High	The introduction of construction works on the Al1307 and the A11 Travel Hub, along with construction compound 1. This will create a new feature in the landscape and increase noise, lighting and activity in the setting.	GEN1	Production of a CEMP and CoCP	Minor	During the day, there will be views of the construction of the new junction on the A1307 and A11 Travel Hub and of construction compound 1 from the northern end of the High Street and the A1307 but they will be partially screened by intervening woodland and the rising landform to the south-east of the viewpoint. Views from residential properties will largely be screened by intervening woodland and garden vegetation, though cranes may be visible above the trees. At night, street lighting on construction compound 1 will be apparent beyond dark farmland in the foreground. The compound itself will be partially screened by the intervening landform and garden vegetation and the lighting will be seen in the context of street lighting on the Fourwentways roundabout and in the service station in the background. The combination of high sensitivity and a minor magnitude of change will result in a slight adverse effect on the receptor which is not significant.	Slight adverse Not significant
			LV1	Construction Lighting Plan			
VP30 Users of Footpath 12 / 4 looking south and south-east and Footpath 4 / 3 looking west	Medium	The introduction of construction works at the A11 Travel Hub will result in a new landscape feature and increased noise, lighting and activity in the existing setting.	GEN1	Production of a CEMP and CoCP	Major	The footpaths will remain open during construction but may be temporarily diverted. There will be open, close and mid-distance views of the construction of the busway, the River Granta (Babraham) Crossing and A11 Travel Hub from the majority of footpath 12 / 4. The construction of the new ramp to the existing footbridge over the A11 will be visible from Footpath 4 / 3. The works will form the dominant feature of the view. The combination of medium sensitivity and a major magnitude of change will result in a large adverse effect on the receptor which is significant. Night time effects have not been considered as it is assumed that visitors will only visit in the daytime.	Large adverse Significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
VP31 Residents at Home Farm Cottages, Pampisford Hall and users of Footpath 179 / 4 looking north	High	The introduction of construction works at the south River Granta crossing the A11 Travel Hub which will be a new feature in the landscape.	GEN1	Production of a CEMP and CoCP	No change	The construction of the busway will be screened from view by the intervening rising landform and vegetation. There would be no change in the view and therefore a neutral effect on the receptor which is not significant.	Neutral Not significant
VP32 Residents and road users on High Street, Babraham east of the River Granta looking south-east.	High	The introduction of construction works at the south River Granta crossing the A11 Travel Hub which will be a new feature in the landscape, increasing noise, lighting and activity within the existing setting.	GEN1	Production of a CEMP and CoCP	Minor	The construction of the River Granta (Babraham) Crossing will be visible in gaps between intervening existing vegetation and above an intervening hedgerow in distant views from Shepherd's Cottage and Harvest House (on the access road to Home Farm) and High Street. The construction of the PRoW diversion to the west of the properties will be visible in close views, partly screened by garden vegetation, from the same properties and from High Street, Babraham but the works will be small-scale and of short duration. Occasional task lighting along the busway will be visible in filtered views from residential properties. The combination of high sensitivity and a minor magnitude of change will result in a slight adverse effect on the receptor which is not significant.	Slight adverse Not significant
			LV1	Construction Lighting Plan			
VP33 Residents and road users on High Street, Babraham west of the River Granta looking south.	High	The introduction of construction works at the south River Granta crossing the A11 Travel Hub which will be a new feature in the landscape, increasing noise, lighting and activity within the existing setting.	GEN1	Production of a CEMP and CoCP	Minor	The construction of the River Granta (Babraham) Crossing and of the busway will be visible in glimpsed, distant views above or between intervening existing vegetation from High Street. Babraham. Views of construction from residential properties on High Street, including the Old Vicarage, will be largely screened by vegetation in gardens and intervening woodland. Occasional task lighting along the busway will be visible in filtered views from residential properties. The combination of high sensitivity and a minor magnitude of change will result in a slight adverse effect on the receptor which is not significant.	Slight adverse Not significant

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Operational phase impacts

7.4.2 Table 7-14 provides an assessment of impacts during operation and the potential effects on the landscape and visual receptors. Mitigation for landscape and visual effects has been implemented as part of the landscape design which is an inherent part of the Proposed Development that has been assessed. The Landscape and Ecological Management Plan (LEMP) in CSET-10-05-00 provides the detail of what the landscape design entails and how it has been developed to mitigate landscape and visual effects.

Table 7-14 Operational phase impact assessment

Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
Cam and Granta Tributaries Lowland Farmlands LCA 3D	Medium	The Scheme will introduce the busway, including bus stops and new street lighting into the LCA.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors;	Minor	Year 1: Where the busway is aligned closely with the railway line, and at road intersections, it will be an additional linear transport element in the landscape. The grass embankments will help integrate the crossing into the landscape and it will be seen in the context of the raised railway line adjacent. In other locations it will present as a new element introducing traffic movement, bus stops, signage and street lighting which will be locally uncharacteristic. The Hobson's Conduit crossing will replace an existing at-grade footbridge over Hobson's Brook with a much larger structure carrying the busway and service track at height over Hobson's Brook. The Hobson's Conduit crossing is in the wider landscape context of the adjacent urban character of south Cambridge and its associated bridge and transport structures. Embedded mitigation in the form of naturalistic form of SuDS and essential mitigation in the form of seeding will help integrate the Scheme into the landscape.	Slight adverse Not significant
			LV3	Landscape and Ecological Management Plan	Minor	Year 15: Mitigation, in the form of hedgerow and specimen trees, to tie in with similar existing landscape element combinations (existing hedgerows and hedgerow trees along field boundaries and roadsides) in areas where localised character is more open will retain a unified landscape design within a simple landscape. Woodland block mitigation in areas where localised character is more wooded will similarly align with the local character. These elements will have established whereby they will provide softening and/or screening of new busway infrastructure and tie in with existing landscape character. However, the level of significance remains within the same banding as there will still be new traffic movement and lighting which cannot be fully mitigated.	Slight adverse Not significant
Eastern Chalk Hills LCA 7A	High	No elements of the Scheme will be located within the LCA.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors;	Negligible	Year 1: Lighting from the travel hub and busway will be perceptible from this adjacent LCA.	Slight adverse Not significant
					Negligible	Year 15: Lighting from the travel hub and busway will remain perceptible from this adjacent LCA.	Slight adverse Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
Gog Magog Chalk Hills LCA 7B	High	The Scheme will run along the boundary of the LCA introducing a bus stop and new street lighting.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Minor	Year 1: The busway will run along the boundary of part of this LCA. It will mainly be aligned with or close to existing ground levels and therefore the new paved surfaces will not be prominent new features in the wider landscape. However, moving buses and users of the ATP will be apparent passing through arable farmland. The bus stop and road crossings at Granham's Road will be uncharacteristic additions to the rural landscape, with street lighting, signage and car parking. The Proposed Development will introduce new transport infrastructure into the countryside, affecting part of the LCA. Effects will be limited to a small proportion of the LCA by woodland on the chalk hills and variations in the local landform. Landscape mitigation will be in the form of seeding and naturalistic SuDS form. The high sensitivity of the LCA, combined with the minor magnitude of change, will result in slight adverse effects which are not significant.	Slight adverse Not significant
			LV3	Landscape and Ecological Management Plan	Minor	Year 15: While additional lighting and vehicle movement will remain perceptible, mitigation, in the form of hedgerow and specimen trees, to tie in with similar existing landscape element combinations (existing hedgerows and hedgerow trees along field boundaries and roadsides) will have established to provide softening and screening of most elements.	Slight adverse Not significant
Pampisford Chalklands LCA 8A	Medium	The Scheme will introduce the busway and part of the travel hub including associated buildings, carparking and lighting.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Minor	Year 1: Part of the travel hub will be located within the LCA. This will be an additional infrastructure development in close proximity to existing road infrastructure due to the A11 and A1307 elevated junction. The nearby motel and other developments also have car parking facilities and lighting. Part of the Proposed Development will also be further west within the LCA. Embedded mitigation includes siting the travel hub to avoid tree loss from the woodland. Essential mitigation includes seeding.	Slight adverse Not significant
			LV3	Landscape and Ecological Management Plan	Minor	Year 15: While additional lighting and elements of the travel hub and busway will have a locally adverse impact on the LCA, essential mitigation in the form of hedgerow and specimen trees, to tie in with similar existing landscape element combinations (existing hedgerows and hedgerow trees along field boundaries and roadsides) will have established to provide softening and screening of most elements. For the LCA as a whole there is not considered to be a significant effect due to existing landscape detractors and the extent of the LCA beyond the construction locations in combination with the mitigation.	Slight adverse Not significant
Cam River Valley-Cambridge LCA 9B	Medium	No elements of the Scheme will be located within or adjacent to the LCA.	N/A	N/A	No change	As there is no change, there is no resulting effect on the LCA at either year 1 or year 15.	Neutral

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
Granta River Valley LCA 9D	Medium	The Scheme will introduce new bridge crossings over the River Granta and part of the travel hub including associated buildings, car parking and lighting.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Major	Year 1: The River Granta bridge crossings at Stapleford and Babraham will have an adverse effect on the landscape character due to the scale of the structures being located in this relatively small scale landscape. Effects of the travel hub will arise from the introduction of these elements into this narrow band of landscape. It will increase the existing prominence of road infrastructure near the junction with the A11. The travel hub will be an uncharacteristic addition to the LCA, but effects will be contained to a relatively small area by existing woodland along the A11 (north and east of the site), the Two Acres Plantation (to the west) and trees along the River Granta (to the south). The Registered Park and Garden at Pampisford Hall will not be affected by the Proposed Development (see Chapter 12 Historic environment) due to its distance from the Proposed Development and the presence of intervening screening vegetation. Embedded mitigation includes siting of the hub to avoid the woodland. Essential mitigation includes seeding and specimen trees.	Large adverse Significant
			LV3	Landscape and Ecological Management Plan	Major	Year 15: While additional lighting and elements of the travel hub will remain, the essential mitigation including hedgerow and specimen trees, and woodland associated with the River Granta Stapleford Crossing Bridge and around the travel hub will have established whereby it will be expected to provide softening and partial screening of the new elements.	Moderate adverse Significant
VP1 Residents on Babraham Road, Urwin Gardens and users of the bridleway looking southwest.	High	The introduction of the busway and ATP between Francis Crick Avenue and Granham's Road, resulting in a new landscape feature, increased noise, activity and lighting.	N/A	None proposed	No change	In year 1 the Proposed Development will be screened by the intervening chalk ridge and woodland between the Proposed Development and receptors. As there is no change to the landscape setting of the area there will be a neutral residual effect on the receptor which is not significant.	Neutral Not significant
					No change	In year 15 the Proposed Development will be screened from receptors by the intervening chalk ridge and woodland. Effects will be neutral.	Neutral Not significant
VP2 Staff working in the building on Dame Archer Way and users of the PRoW	High	Modifications to Francis Crick Avenue.	N/A	None proposed	Minor	In year 1, the changes to the Addenbrooke's Road roundabout and moving buses will be visible from the western end of Dame Mary Archer Way and the Abcam Building on Discovery Drive. Views will be partially filtered by the recent planting along Dame Mary Archer Way and around the Abcam building. The moving buses will not be uncharacteristic new features in the view as they will be seen in the context of the existing road and rail network. The high sensitivity of the receptor combined with the minor magnitude of change will result in slight adverse effects.	Slight adverse Not significant
					Negligible	In year 15, maturing trees and hedgerows along Dame Mary Archer Way and around the Abcam building will further screen views of the Proposed Development and buses. The high sensitivity of the receptor combined with the negligible magnitude of change will result in a slight adverse effect.	Slight adverse Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
VP3 Staff working on the Cambridge Biomedical Campus and users of Francis Crick Avenue looking South	Low	Modifications to Francis Crick Avenue.	N/A	None proposed	Minor	In year 1, the widening of the western pedestrian footway to include a cycle path will reduce the verge width resulting in more visible hard infrastructure. At the north of Francis Crick Avenue, the widening of the junction and the road to include the bus stop lay-by will have a similar effect. The existing trees on both sides of the road will be retained so that the overall balance of the features and elements that comprise the existing view will be retained. The buses will be seen in the context of the existing road network. The Proposed Development will form a noticeable feature of the view. The low sensitivity of the receptor combined with a minor magnitude of change will result in a slight adverse effect.	Slight adverse Not significant
					Minor	In year 15, the existing trees planted along Francis Crick Avenue will grow and mature, further softening the additional hard infrastructure. The low sensitivity of the receptor combined with a minor magnitude of change will result in a slight adverse effect.	Slight adverse Not significant
VP4 Users of National Cycle Route 11 / DNA Cycle Path (PPA / 0155) looking South	Medium	Presence of new transport infrastructure in the landscape, comprising a concrete paved busway, service track and Hobson's Conduit Bridge	LV3	Landscape and Ecological Management Plan	Moderate	In year 1, the DNA Cycle Path will share a surface with the ATP and run parallel to the busway at this point. Views south will be of the grassed embankment, bridge and guardrails of the Hobson's Conduit Bridge. The top of the bridge deck will be approximately 2.35m above existing ground levels. The crossing will screen views of the busway south of the crossing. The busway, vehicles and crossing will be prominent in the view but will be seen in the context of the existing fencing, overhead line equipment and trains adjacent. A small amount of vegetation will be removed during construction. The medium sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
					Moderate	By year 15, the tree-lined hedge along the eastern side of the crossing over Hobson's Conduit will frame views of the busway, but the Proposed Development will remain a noticeable feature of the view from the DNA Cycle Path. The medium sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
VP5 Residents on Southwell Drive, Lapwing Avenue and Kingfisher Gardens and visitors to the Cabbage Moor campsite looking east.	High	Presence of new transport infrastructure in the landscape, comprising a concrete paved busway, service track and Hobson's Conduit Bridge	LV3	Landscape and Ecological Management Plan	Minor	In year 1, views of the moving buses in the background of the view will largely be screened by the intervening boundary vegetation, fencing and overhead line equipment of the railway line. The buses will not be uncharacteristic additions to the view in the context of the existing railway line. The stretch of the busway visible from this location will be unlit. The headlights of the moving vehicles on the route will be visible beyond the railway line, but in the context of lit moving trains they will not be an uncharacteristic addition to the night-time view. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
					Minor	No additional mitigation planting is proposed between the viewpoint and the Proposed Development and consequently the effects will be unchanged in year 15. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
VP6 Visitors to Nine Wells Nature Reserve and users of Footpath 196 / 2 looking west.	High	Presence of new transport infrastructure in the landscape, comprising a concrete paved busway, service track and Hobson's Conduit Bridge	LV3	Landscape and Ecological Management Plan	Minor	In year 1, the buses and the grassed embankment, concrete wingwalls, guardrails and the Hobson's Conduit Bridge will be clearly visible from a short section of Footpath 198 / 2, but they will be screened from most of the PRoW and nature reserve by intervening vegetation. The crossing embankments will partially screen views of the railway line west of the crossing. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
					Minor	By year 15, the tree-lined hedge planted along the eastern embankment of the Hobson's Conduit Bridge will partially filter views of the busway and buses moving along the route. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
VP7 Users of National Cycle Network Route 11 / DNA Cycle Path (PPA / 0155) looking north	Medium	Presence of new transport infrastructure in the landscape, comprising a concrete paved busway, service track and Hobson's Conduit Bridge.	LV3	Landscape and Ecological Management Plan	Moderate	In year 1, the cycle path and service track diverge south of the viewpoint location. There will be close views from a section of the DNA Cycle Path near this point, where the busway and moving buses will be prominent in views across arable fields towards White Hill. The Proposed Development will become decreasingly noticeable in the view from the cycle path as receptors move southwards. An existing woodland belt will screen the busway and vehicles from the cycle path as it approaches Granham's Road. The medium sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
					Minor	By year 15, a maturing woodland belt where the DNA Cycle Path and service track diverge will screen close views of the Proposed Development. The ATP, busway and moving buses will remain visible from the stretch of the cycle path south of the woodland belt. The medium sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
VP8 Residents at White Hill Farm, Nine Wells House and White Hill House, and users of the permissive bridleway looking south-west	High	Presence of new transport infrastructure in the landscape, comprising a concrete paved busway, service track and Hobson's Conduit Bridge. Street lighting from the Granham's Road crossing will be visible.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Moderate	The busway is slightly cut into the slope in this location, but the route and vehicles will be visible, partially screened by an existing hedgerow, in wide, open views from White Hill Farm. Views from other residential properties on White Hill will largely be filtered by garden vegetation. The Proposed Development will be seen in the context of the trains, fencing and track of the railway line beyond, but will be a noticeable new linear element in the view, closer to the viewpoint than the railway. Long views over the landscape to the south-west will be maintained. The stretch of the busway visible from this location will be unlit, but the lit buses will be apparent in filtered or partially screened views in year 1. The vehicles will be seen in the context of lit moving trains beyond and will not, therefore, be wholly uncharacteristic of the night-time view. The high sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
			LV3	Landscape and Ecological Management Plan	Minor	The maturing tree-lined hedgerow planted along the north-eastern side of the busway will screen the route and ATP from view, restoring the overall balance of features in the view. The moving buses will remain visible, but views will be partially filtered by the maturing trees. By year 15, maturing mitigation planting will further filter and screen views of the moving vehicles. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
VP9 Residents on A1301 Cambridge Road and adjacent side roads looking east	High	Presence of new transport infrastructure in the landscape, comprising a concrete paved busway, service track and Hobson's Conduit Bridge. Street lighting from the Granham's Road crossing will be visible.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Minor	In year 1, there will be mid-distance views of the busway and vehicles beyond farmland and the railway line from residential properties and the adjacent allotments. The Proposed Development will be seen in the context of the trains, overhead line equipment, fencing and footbridge associated with the railway and, though perceptible, will not alter the overall balance of features in the view. The stretch of the busway visible from this location will be unlit. The headlights of the moving vehicles on the route will be visible beyond the railway line but in the context of lit moving trains, they will not be an uncharacteristic addition to the night-time view. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
			LV3	Landscape and Ecological Management Plan	Minor	No additional mitigation planting is proposed between the viewpoint and the Proposed Development and consequently the effects will be unchanged in year 15. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
VP10 Residents on Granham's Road and users of Footpath 198 / 1 looking north-west	High	Presence of new transport infrastructure in the landscape, comprising a concrete paved busway, and service track. Street lighting from the Granham's Road crossing will be visible.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Minor	In year 1, there will be mid-distance views of the busway and vehicles beyond Granham's Road and arable farmland. The route will occupy a narrow corridor across the landscape, which will be perceptible but will not alter the overall balance of the view. The Proposed Development will be seen in the context of the railway line, visible to the north-west. Street lighting at the Granham's Road crossing will be largely screened by intervening vegetation, but it will be apparent in filtered, oblique views from residential properties on Granham's Road. The stretch of the busway visible from this location will be unlit, but the lit vehicles moving along the route will be visible. They will be seen in the context of the lit moving trains on the railway line adjacent and consequently will not be an uncharacteristic addition to the night-time view. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
			LV3	Landscape and Ecological Management Plan	Minor	No additional mitigation planting is proposed between the viewpoint and the Proposed Development and consequently the effects will be unchanged in year 15. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
VP11 Users of Granham's Road and users of Footpath 39 / 8 looking south-west	Medium	No change in the view	N/A	None proposed	No change	The Proposed Development will be completely screened by the intervening chalk ridge and woodland. There will be no change in the view.	Neutral Not significant
					No change	The Proposed Development will be completely screened by the intervening chalk ridge and woodland. There will be no change in the view.	Neutral Not significant
VP12 Residents and users of Hinton Way looking south	High	No change in the view	N/A	None proposed	No change	The Proposed Development will be completely screened by the intervening chalk ridge and woodland. There will be no change in the view.	Neutral Not significant
					No change	The Proposed Development will be completely screened by the intervening chalk ridge and woodland. There will be no change in the view.	Neutral Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Impact magnitude**	**Residual effect**	**Significance**
VP13 Residents on Hinton Way looking south-west	High	The presence of the new Great Shelford stop, and the Hinton Way crossing will be prominent in the view. The busway and service track will also be visible. There will be new lighting columns to illuminate the Great Shelford stop and Hinton Way crossing.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Minor	In year 1, the Great Shelford stop, Hinton Way crossing, busway and moving vehicles will largely be screened from view by intervening woodland, hedgerow and garden vegetation and the western end of Fox Hill. There will be filtered views of the stop, associated streetlights and vehicles using the route east of Hinton Way from upper floor windows of the properties adjacent to the viewpoint. In year 1, views of lighting at the Great Shelford stop and Hinton Way crossing will be screened or filtered from receptors by the existing hedgerow along Hinton Way and intervening garden vegetation. When visible, the stop and crossing will be seen against a backdrop of street lighting on Hinton Way. Street lighting along a new stretch of footway between the village, the Hinton Way crossing, and the stop will extend the existing lit boundary of Great Shelford closer to receptors. Lit buses will be apparent in filtered views moving through the dark landscape. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
			LV3	Landscape and Ecological Management Plan	Minor	In year 15, the existing hedgerow along Hinton Way and the maturing tree-lined hedgerow to be planted along the north-eastern side of the Proposed Development and around the Great Shelford Stop will largely screen the stop, crossing, route and moving vehicles from view, although the lighting columns will remain visible above the vegetation. The stop and associated planting will appear to merge into the background planting in the garden and along the field boundary immediately south of the stop. Buses moving along the route may be visible in filtered views from upper floor windows of the properties adjacent to the viewpoint. By year 15, maturing trees and hedgerow around the stop and crossing will partly screen it, but the lighting columns will remain visible above the vegetation. Trees and hedgerows along the busway will partly screen the lit moving vehicles. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
VP14 Residents on Hinton Way and Coppice Avenue looking north-east	High	The presence of the new Great Shelford stop, and the Hinton Way crossing will be prominent in the view. The busway and service track will also be visible. There will be new lighting columns to illuminate the Great Shelford stop and Hinton Way crossing.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Major	In year 1, the busway and ATP will be partly elevated, up to 1.5m above ground level, as they pass north-east of Coppice Avenue, but will be at around ground level as they cross Hinton Way and the landscape south-east of the road. Ground-level close views of the busway, buses and of users on the APT will be filtered from most residential properties on Coppice Avenue by intervening garden vegetation, but they will be visible from upper floor windows. The busway, Great Shelford stop, Hinton Way crossing, buses and users on the ATP will largely be screened at ground level from residential properties on Hinton Way by intervening hedgerow and garden vegetation, but visible from upper floor windows. The busway will not be lit at night, but street lighting at the Great Shelford Stop, the Hinton Way crossing and between the village and the stop will be apparent in filtered, oblique views from residential properties on Hinton Way and Coppice Avenue. A 2m-high noise fence barrier will screen the stop from ground level at 154 Hinton Way, but the stop will be visible from the upstairs window facing north-east. Lit buses moving through the dark landscape will be a noticeable new feature in the view from the rear of properties on Coppice Avenue and apparent in filtered, oblique views the rear of properties on Hinton Way. The high sensitivity of the receptor combined with the major magnitude of the impact will result in a large, adverse, and significant effect.	Large adverse Significant
			LV3	Landscape and Ecological Management Plan	Minor	By year 15, maturing woodland belts planted along both sides of the Scheme north-east of Coppice Avenue will screen views of the buses and users on the service track from the residential properties in this location. Maturing tree-lined hedgerows planted around the Great Shelford Stop and along the busway south-east of Hinton Way will screen the stop and route from residential properties on Hinton Way, but the buses and lighting columns around the Great Shelford stop will remain visible in filtered views from upper floor windows. The woodland north-east of Coppice Avenue will gradually appear to merge into the existing background woodland. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
VP15 Residents on Mingle Lane, Duke's Meadow and the western end of Gog Magog Way and visitors to St Andrew's Church and Stapleford Cemetery looking north-east	High	The Great Shelford and Stapleford halts, Hinton Way and Haverhill Road crossings, busway and service track will all be visible. Lighting columns will illuminate the two halts and the two road crossings.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Moderate	In year 1, the busway will be partly in cutting but buses and users on the ATP will be visible beyond intervening hedgerows and through intervening garden vegetation from residential properties on Mingle Lane, Duke's Meadow and the western end of Gog Magog Way and from Stapleford Cemetery and the churchyard of St Andrew's, Stapleford. The Proposed Development will introduce transport infrastructure into existing views over farmland and will be a noticeable and uncharacteristic element in the mid-distance. The stretch of the busway visible from this viewpoint will not be lit, but the lit buses moving through the dark landscape will be a noticeable new feature in filtered views beyond intervening hedgerows from the rear of properties overlooking the route. The high sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
			LV3	Landscape and Ecological Management Plan	Minor	By year 15 the maturing tree-lined hedgerow planted along the south-western side of the busway will screen the route and users on the ATP from residential properties, the cemetery and the churchyard, restoring the overall balance of features in the view. The tops of moving buses will remain visible, but views will be partially filtered by the maturing trees. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant

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Baseline		Impact assessment						
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
VP16 Residents on Haverhill Road, Chalk Hill and at the eastern end of Gog Magog Way looking north-east	High	The Stapleford stop and Haverhill Road crossing will be prominent new features. The stop and road crossing will both be illuminated by new lighting columns.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Major	In year 1, there will be open, oblique views of the busway, buses, Stapleford stop and Stapleford crossing from the bungalows on Haverhill Road nearly opposite the stop, and from 88 Haverhill Road. The lighting columns around the Stapleford stop will be especially prominent in the view due to their height. There will also be filtered views of the busway, vehicles and ATP users from properties on Haverhill Road, south-west of the Proposed Development, Chalk Hill and the eastern end of Gog Magog Way. Views of the Proposed Development from upper floor windows from these properties will be more open. The Proposed Development will introduce transport infrastructure into existing views over the rural landscape and this will result in a substantial alteration to the view. The busway will not be lit at night, but street lighting at the Stapleford stop, Haverhill Road crossing and along Haverhill Road will be visible in oblique views against a dark background from the bungalows on Haverhill Road near the stop, and from 88 Haverhill Road. Lit buses moving through the dark landscape will be a noticeable new feature in filtered views from the rear of properties on Haverhill Road, south-west of the Proposed Development, on Chalk Hill and on the eastern end of Gog Magog Way. The high sensitivity of the receptor combined with the major magnitude of the impact will result in a large, adverse, and significant effect.	Large adverse Significant
			LV3	Landscape and Ecological Management Plan	Moderate	By year 15. tree-lined hedgerows will be established along both sides of the busway and around the Stapleford Stop. This planting will largely screen the busway and users on the ATP from the residential properties. However, the Stapleford Stop, streetlights and tops of the buses will remain visible above the vegetation. Maturing tree-lined hedgerows will partially screen and break up views of the lighting at the Stapleford stop, crossing and of moving lit buses from properties overlooking the route. However, the stop will remain a noticeable feature in the night-time view from the bungalows opposite. The high sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
VP17 Residents of Middlefield Cottage, South Hill House, the House on the Hill and other residences on Fox Hill and users of Haverhill Road looking south and south-west	High	The Stapleford stop and Haverhill Road crossing will be prominent new features. The stop and road crossing will both be illuminated by new lighting columns.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Moderate	In year 1, the busway, buses, Stapleford stop, streetlights and ATP users will be visible in open and partially screened views from Haverhill Road and residential properties on Fox Hill looking south-west. They will be noticeable new features in the farmed landscape but seen against the background of houses in Stapleford. From Middlefield and other properties looking south, the busway, buses, Stapleford stop and users on the ATP will be visible in distant views, framed by woodland. The stretch of the busway visible from this viewpoint will not be lit, but the lit buses moving through the dark landscape will be a noticeable new feature in open and partially screened views from residential properties on Fox Hill. Lighting around the Stapleford stop, and crossing will be apparent in oblique, filtered views. The stop, crossing and lit vehicles will be seen against a background of street lighting in Stapleford. The high sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
			LV3	Landscape and Ecological Management Plan	Minor	By year 15, tree-lined hedgerows planted along both sides of the busway will largely screen the busway and users on the ATP from the residential properties. However, tops of the buses and the Stapleford Stop will remain visible above the vegetation. The Proposed Development will remain a perceptible feature in the view from residential properties on Fox Hill and a noticeable feature in road users' views. By year 15, maturing tree-lined hedgerows will partially screen and break up views of the moving buses and lighting around the Stapleford and crossing, but they will remain perceptible in the night-time view from residential properties on Fox Hill. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
VP18 Visitors to Magog Down, users of Footpath 212 / 3 and residents of Gog Magog Cottages looking south-west	High	New infrastructure including the busway, the Stapleford stop, Haverhill Road crossing and the landscaping scheme will be new features within the view. Lighting columns will illuminate the Stapleford stop and the Haverhill Road crossing.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Minor	In year 1, there will be distant views of the busway, buses, Stapleford Stop and users on the ATP from Magog Down and upper floor windows at Gog Magog Cottages. The majority of views from the PRoW will be filtered through intervening vegetation. The moving buses will introduce uncharacteristic movement into existing views over farmland from Magog Down, but they will be inconspicuous in the panoramic view. There will be distant views of the lighting on the Stapleford Stop against the lit background of Stapleford from upper floor windows at Gog Magog Cottages. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
			LV3	Landscape and Ecological Management Plan	Minor	By year 15, the tree-lined hedgerows planted along both sides of the busway and around the Stapleford Stop will largely screen the busway from Magog Down. The tops of moving buses and the streetlights around the Stapleford Stop will remain visible above the vegetation but will be inconspicuous in the wider view over the landscape. Maturing tree-lined hedgerows planted around the Stapleford stop will largely screen the lit stop, but street lighting will remain visible in distant views above the vegetation against the lit background of Shelford. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
VP19 Users of Bridleway 212 / 2 and residents on Haverhill Road looking east	High	New infrastructure including the busway, the River Granta (Stapleford) Crossing Bridge, and planting from the landscaping scheme within the view.	LV3	Landscape and Ecological Management Plan	Moderate	In year 1, there will be open views of the busway, buses, ATP and the grass embankments of the River Granta (Stapleford) Crossing Bridge from the PRoW. Views of the Proposed Development from the residential properties at the southern end of Haverhill Road will largely be filtered and screened by intervening vegetation, but the busway and vehicles will be visible from upper floor windows in mid-distant views. The Stapleford stop will be just visible in the background from the PRoW. The Proposed Development will introduce transport infrastructure and uncharacteristic movement into existing views over the rural landscape, resulting in a noticeable alteration to the view. The stretch of the busway visible from this viewpoint will not be lit, but the lit buses moving through the dark landscape will be a perceptible new feature in filtered, night-time views from the rear of properties at the southern end of Haverhill Road. The high sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
					Minor	By year 15, the tree-lined hedgerows planted along both sides of the busway will largely screen the busway and ATP from the PRoW and the southern end of Stapleford Road, but views across the landscape will become less open. Trees and woodland planted around the crossing embankments will partially screen them and help them merge into the surrounding existing vegetation. The tops of moving buses will remain visible above the trees and hedgerows. Maturing tree-lined hedgerows will partially screen and break up views of the moving buses, but the lit vehicles will remain perceptible passing through the dark landscape. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
VP20 Users of Bridleway 212 / 2 looking west	Medium	New infrastructure including the busway, the River Granta (Stapleford) Crossing Bridge, and planting from the landscaping scheme within the view.	LV3	Landscape and Ecological Management Plan	Major	In year 1, there will be clear views of the embankments, concrete wingwalls, parapets, noise barriers and bridge supported on piers of the River Granta (Stapleford) Crossing Bridge and the busway and buses, from the bridleway. The bridge will be a dominant, new and uncharacteristic element in the view. The bridge and buses crossing will appear above the skyline in places and will partially screen longer views of the countryside beyond. Intervening existing vegetation along the River Granta valley will screen the crossing from further east along the PRoW. The Proposed Development will introduce transport infrastructure and uncharacteristic movement into existing views over the rural landscape, resulting in a substantial alteration to the view. The medium sensitivity of the receptor combined with the major magnitude of the impact will result in a large, adverse, and significant effect.	Large adverse Significant
					Moderate	By year 15, trees and woodland planted around the embankments and bridge of the River Granta (Stapleford) Crossing Bridge will partially screen it from view and integrate it into its landscape setting; however, due to its height, the crossing and the buses using it will remain visible in close views from the PRoW. The medium sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
VP21 Users of Cambridge Road looking north-east	Low	No change in the view	N/A	None proposed	No change	In year 1, the Proposed Development will be screened by a woodland belt running along the former railway line (north-east of the viewpoint), around the wastewater treatment works and along the western boundary of the business units. There will be no change in the view.	Neutral Not significant
					No change	By year 15, the Proposed Development will be screened by a woodland belt running along the former railway line (north-east of the viewpoint), around the wastewater treatment works and along the western boundary of the business units. There will be no change in the view.	Neutral Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
VP22 Users of Restricted Byway 12 / 10 and residents of North Farm looking south-west	High	New infrastructure including the busway, the Sawston stop, and planting from the landscaping scheme within the view. New lighting columns will illuminate the Sawston stop, and the Sawston Road / Babraham Road crossing.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Major	In year 1, the busway and buses will run through farmland at North Farm and will cross the PRoW. There will be close views of the busway and vehicles from the byway and the farmhouse, although an earth bank and garden vegetation between the farmhouse and the route will partially screen it at ground level from the farmhouse. The Proposed Development will introduce transport infrastructure and uncharacteristic movement into existing views over farmland, but these will partly be seen against a backdrop of business units and a new residential development under construction (The Hawthorns). The stretch of the busway visible from this viewpoint will not be lit, but the lit buses moving through the dark landscape will be a perceptible new feature in filtered views from the North Farm. The vehicles will be seen against the lit background of the street lighting around the business units south of the busway. The high sensitivity of the receptor combined with the major magnitude of the impact will result in a large, adverse, and significant effect.	Large adverse Significant
			LV3	Landscape and Ecological Management Plan	Moderate	By year 15, tree-lined hedgerows planted along both sides of the busway will screen the busway from North Farm and the byway, except where the PRoW crosses the route. The moving buses will remain visible above the trees and hedgerows. The Proposed Development will remain a noticeable element in the view. At night, the maturing tree-lined hedgerows will partially screen and break up views of the moving buses, but the lit vehicles will remain perceptible passing through the landscape. The high sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
VP23 Users of Bridleway 12 / 12 (Rowley Lane) looking south-west	Medium	New infrastructure including the busway, the Sawston stop, and planting from the landscaping scheme within the view. New lighting columns will illuminate the Sawston stop, and the Sawston Road / Babraham Road crossing.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Minor	In year 1, views from the bridleway of the busway, buses and Sawston Road stop will largely be screened by the intervening landform between the viewpoint and the Proposed Development. Variations in the intervening landform will allow occasional mid-distance views from short sections of the PRoW, but where visible, the Proposed Development will be seen against a backdrop of the business units in Sawston and the new residential development on the edge of Sawston (The Hawthorns). The medium sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
			LV3	Landscape and Ecological Management Plan	Minor	By year 15, maturing hedgerows planted along the north side of the busway will screen the route, but the tops of the moving buses will remain visible above the hedgerows. Maturing woodland planted south of the route will partially screen the Hawthorns residential development on the edge of Sawston from the bridleway. The Sawston Road stop will be partially screened by tree-lined hedgerows around the stop. The medium sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
VP24 Residents on Babraham Road, Lynton Way and Stanley Webb Close looking east and south-east	High	New infrastructure including the busway, the Sawston stop, and planting from the landscaping scheme within the view. New lighting columns will illuminate the Sawston stop, and the Sawston Road / Babraham Road crossing.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Major	In year 1, the lighting, shelters, street furniture, car park and new road junction associated with the Sawston Road stop, and a noise barrier will form a prominent new feature in the view east from The Hawthorns. Noise fencing, 2m high, along the north-eastern boundary of the houses will screen the busway, which passes close to the boundary, but the buses will be visible above the fencing. The noise fence will also screen existing views east over the open countryside from ground level. More distant and oblique views of the busway and moving vehicles from residential properties south of Babraham Road will be filtered by intervening existing hedgerows and garden vegetation. The Proposed Development will introduce transport infrastructure into existing views over the rural landscape and this will result in a substantial alteration to the view. Street lighting at the Sawston Road stop and Sawston Road crossing will be clearly visible in open views from The Hawthorns. It will be viewed beyond the brightly lit foreground, but against the dark farmland in the background. Noise fencing, 2m high, along the north-eastern boundary of the houses will largely screen lit buses moving through the dark landscape, but they will be visible from upstairs windows. More distant and oblique views of the stop and lit vehicles from residential properties on the streets south of the busway will be filtered by intervening existing hedgerows and garden vegetation. The high sensitivity of the receptor combined with the major magnitude of the impact will result in a large, adverse, and significant effect.	Large adverse Significant
			LV3	Landscape and Ecological Management Plan	Moderate	By year 15, tree-lined hedgerows around the Sawston Road stop will partially screen views of the stop from The Hawthorns, but the buses, streetlights and shelters will remain visible above the hedgerows. A woodland belt along the north-eastern boundary of the houses will screen the buses and the noise fencing in ground-level views to the north-east. The tree-lined hedgerow along the south-western side of the busway will screen the route and the ATP from residential properties south of Sawston Road but buses will remain visible in filtered and oblique views. The Proposed Development will remain a noticeable feature of the view. The high sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
VP25 Users of Footpaths 179 / 1, 179 / 2, 196 / 12 and 196 / 14 looking north-east	Medium	New infrastructure including the busway, the Sawston stop, and planting from the landscaping scheme within the view. New lighting columns will illuminate the Sawston stop, and the Sawston Road / Babraham Road crossing.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Moderate	In year 1, there will be mid-distance views of the lighting, shelters, street furniture, car park and new road junction associated with the Sawston Road stop. Some views will be partially screened by intervening hedgerows. The Scheme will introduce transport infrastructure and moving vehicles into existing views over the rural landscape and will be a noticeable new element in the view. The magnitude of change will be moderate. The medium sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
			LV3	Landscape and Ecological Management Plan	Minor	By year 15, hedgerows with trees along the south-western side of the busway will screen the route and partially screen the buses and users of the APT as they pass through the landscape. The hedgerows planted as mitigation will become integrated into the existing pattern of hedgerows in the view. The Proposed Development will continue to be perceptible but will no longer alter the balance of the features in the view. The medium sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
VP26 Users of Sawston Road and the cycleway looking west	Medium	New infrastructure including the busway, the Sawston stop, and planting from the landscaping scheme within the view. New lighting columns will illuminate the Sawston stop, and the Sawston Road / Babraham Road crossing.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Moderate	In year 1, the streetlights, shelter, street furniture, car park, cycle parking and new road junction associated with the Sawston Road stop will be prominent in open views towards Sawston from the cycleway and road, urbanising the view. The busway will be discernible as a narrow feature in the landscape, but the moving buses will introduce uncharacteristic movement in panoramic views over farmland. The medium sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
			LV3	Landscape and Ecological Management Plan	Moderate	By year 15, hedgerows and trees along the eastern side of the busway will screen the route from the cycleway and road but the moving buses will be visible above the hedgerow. The Proposed Development will remain a noticeable feature of the view. The medium sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
VP27 Users of Footpath 12 / 9 and residents in properties north of Sawston Road looking south	High	New infrastructure including the busway and planting from the landscape scheme within the view.	LV3	Landscape and Ecological Management Plan	Minor	In year 1, there will be close views of the busway and ATP from Footpath 12 / 9 where the route crosses the footpath. However, from most of the footpath, the busway will be discernible as a narrow feature in the landscape and will not alter the overall balance of features in the view. The route will largely be screened from residential properties north of Sawston Road by intervening vegetation in the gardens of the properties. Street lighting at the Sawston Road stop and Sawston Road crossing will be perceptible in filtered views from residential properties north of Sawston Road but will be seen against the lit background of Sawston. Views of lit buses and lighting at the Babraham High Street crossing will be visible in filtered views against a dark background from these properties. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
					Minor	By year 15, hedgerows and trees along the north-eastern side of the Proposed Development will screen the busway from the majority of the footpath except where it crosses the route. The moving buses will be visible above the hedgerow. Maturing tree-lined hedgerows will further break up views of the lit buses and the street lighting at the Sawston Road stop and Sawston Road and Babraham High Street crossings, but theses will remain perceptible in the night-time view. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
VP28 Users of Sawston Road and High Street looking east	Low		LV3	Landscape and Ecological Management Plan	Minor	In year 1, The busway will be discernible as a narrow feature in the landscape, but the moving buses will introduce uncharacteristic movement in panoramic views over farmland. The embankments and bridge of the River Granta (Babraham) Crossing Bridge will be visible in the mid-distance, partially screened by existing vegetation growing along the River Granta corridor. The low sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
		New infrastructure including the busway, River Granta (Babraham) Crossing Bridge, and planting from the landscaping scheme within the view.			Minor	By year 15, hedgerows and trees along the northern side of the busway will change the pattern of the landscape in the view by dividing the large open field in the foreground into two. The hedgerow will also screen the busway from the road but moving buses will remain visible above the vegetation. The River Granta (Babraham) Crossing Bridge will largely be screened by maturing woodland planting. The low sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
VP29 Residents at the northern end of High Street, Babraham and Oak Lane and users of the A1307 Cambridge Road looking south-east	High	New infrastructure including the new roundabout junction on the A1307 within the view.	LV3	Landscape and Ecological Management Plan	Minor	In year 1, the access road and A11 Travel Hub will largely be screened by the existing woodland and rising landform between residential properties on High Street and Oak Lane and the Proposed Development but will be visible from the A1307 and the northern end of the High Street. Street lighting will be apparent above the trees from High Street. The new junction on the A1307 will be apparent on rising ground in the mid-distance, but the road is a dual carriageway at this point and the junction will be seen against a background of large-scale road infrastructure. Street lighting at the new roundabout on the A1307, along the new access road and in the northern part of the A11 travel hub will be visible in filtered and partially screened views from residential properties at the northern end of Babraham; however, it will be seen against street lighting on the Fourwentways roundabout and in the service station in the background. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
					Minor	By year 15, maturing hedgerow and woodland planted along the western side of the A11 Travel Hub will screen it and the access road from the A1307 and High Street, although street lighting may remain visible above the trees. Maturing woodland planting west of the A11 Travel Hub will largely screen views of the street lighting on the access road and A11 Travel Hub, but the tops of the light columns will remain visible in filtered views. The lighting at the roundabout will remain apparent from the northern end of Babraham High Street. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
VP30 Users of Footpath 12 / 4 looking south and south-east and Footpath 4 / 3 looking west	Medium	New infrastructure including the busway, River Granta (Babraham) Crossing Bridge, A11 Travel Hub, and planting from the landscaping scheme within the view. New lighting columns will illuminate the A11 Travel Hub.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Major	In year 1, there will be open, close and mid-distance views of the busway, the River Granta (Babraham) Crossing Bridge and the southern end of the A11 Travel Hub from the footpath. The crossing will be a new structure in the existing view over farmland but will be partially screened by existing trees lining the River Granta corridor. The bridge and buses on the crossing will not appear above the existing skyline. The northern end of the A11 Travel Hub, bus waiting area and associated building will be screened by Two Acre Plantation from much of the footpath, and a corridor of farmland and a number of existing trees along the footpath will be retained. Nevertheless, the introduction of car parking, roads, streetlights and signage into existing views over the rural landscape from the eastern end of the footpath will result in a substantial alteration to the view. The replacement of the steps to the existing footbridge over the A11 with a ramp, along with removal of vegetation during construction, will slightly increase the prominence of the bridge in the view from Footpath 4 / 3. The medium sensitivity of the receptor combined with the major magnitude of the impact will result in a large, adverse, and significant effect.	Large adverse Significant

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Baseline		Impact assessment					
Receptor	**Sensitivity**	**Impact**	**Mitigation**		**Magnitude**	**Residual effect**	**Significance**
			LV3	Landscape and Ecological Management Plan	Moderate	By year 15, tree planting around the crossing will not fully screen it but will reduce its prominence in the view. The hedgerows will change the pattern of the landscape in the view by dividing the large open field in the foreground into two. The A11 Travel Hub will remain the focal point of the view from the eastern end of the car park. The medium sensitivity of the receptor combined with the moderate magnitude of the impact will result in a moderate, adverse, and significant effect.	Moderate adverse Significant
VP31 Residents at Home Farm Cottages, Pampisford Hall and users of Footpath 179 / 4 looking north	High	No impact.	N/A	None proposed	No change	In year 1, the Proposed Development will be screened from view by the intervening rising landform and vegetation.	Neutral Not significant
					No change	In year 15, the Proposed Development will be screened from view by the intervening rising landform and vegetation.	Neutral Not significant
VP32 Residents and road users on High Street, Babraham east of the River Granta looking south-east.	High	New infrastructure including the busway, River Granta (Babraham) Crossing Bridge, A11 Travel Hub, and planting from the landscaping scheme within the view. New lighting columns will illuminate the A11 Travel Hub.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Minor	In year 1, the upper part of River Granta (Babraham) Crossing Bridge and the buses using the crossing will be visible in gaps between intervening existing vegetation and above an intervening hedgerow in distant views from Shepherd's Cottage and Harvest House (on the access road to Home Farm), and High Street, Babraham. A new gap in the flint and brick wall on High Street Babraham will be opened to allow access to the diverted Footpath12 / 4. The diverted PRoW will be surfaced in gravel or compacted stone and will resemble a rural path, rather than an urban footway. It will be visible from High Street, running through the meadow in the foreground. The stretch of the busway visible from this viewpoint will not be lit, but the lit buses moving through the dark landscape will be a perceptible new feature in filtered views. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
			LV3	Landscape and Ecological Management Plan	Minor	By year 15, maturing tree-lined hedgerows will partially screen and break up views of the moving buses, but the lit vehicles will remain perceptible passing through the landscape. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
VP33 Residents and road users on High Street, Babraham west of the River Granta looking south.	High	New infrastructure including the busway, River Granta (Babraham) Crossing Bridge, and planting from the landscaping scheme within the view. New lighting columns will illuminate the A11 Travel Hub.	BD37	Operational lighting design to minimise impacts to wildlife, landscape and visual receptors	Minor	In year 1, the River Granta (Babraham) Crossing Bridge, a short section of the busway and buses will be visible in glimpsed, distant views above or between intervening existing vegetation from High Street, Babraham. Views from residential properties on High Street, including the Old Vicarage, will be largely screened by vegetation in gardens and intervening woodland. The stretch of the busway visible from this viewpoint will not be lit, but the lit buses moving through the dark landscape will be a perceptible new feature in filtered views. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant
			LV3	Landscape and Ecological Management Plan	Minor	By year 15, maturing hedgerow and woodland planted along the northern side of the River Granta (Babraham) Crossing will partially screen and break up views of the crossing and buss using it from High Street Babraham. The magnitude of change will remain minor, with slight adverse effects. Maturing tree-lined hedgerows will partially screen and break up views of the moving buses, but the lit vehicles will remain perceptible passing through the landscape. The high sensitivity of the receptor combined with the minor magnitude of the impact will result in a slight, adverse, and not significant effect.	Slight adverse Not significant

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7.5 Summary of significant effects

7.5.1 During construction there will be significant adverse landscape effects to the Granta River Valley LCA and significant adverse visual effects for the following visual receptors:

- VP4 Users of National Cycle Route 11 / DNA Cycle Path (PPA / 0155) looking south
- VP6 Visitors to Nine Wells Nature Reserve and users of Footpath 196 / 2 looking west.
- VP7 Users of National Cycle Network Route 11 / DNA Cycle Path (PPA / 0155) looking north
- VP8 Residents at White Hill Farm, Nine Wells House and White Hill House, and users of the permissive bridleway looking south-west
- VP14 Residents on Hinton Way and Coppice Avenue looking north-east
- VP15 Residents on Mingle Lane, Duke's Meadow and the western end of Gog Magog Way and visitors to St Andrew's Church and Stapleford Cemetery looking north-east
- VP16 Residents on Haverhill Road, Chalk Hill and at the eastern end of Gog Magog Way looking north-east
- VP17 Residents of Middlefield Cottage, South Hill House, the House on the Hill and other residences on Fox Hill and users of Haverhill Road looking south and south-west
- VP19 Users of Bridleway 212 / 2 and residents on Haverhill Road looking east
- VP20 Users of Bridleway 212 / 2 looking west
- VP22 Users of Restricted Byway 12 / 10 and residents of North Farm looking south-west
- VP24 Residents on Babraham Road, Lynton Way and Stanley Webb Close looking east and south-east
- VP25 Users of Footpaths 179 / 1, 179 / 2, 196 / 12 and 196 / 14 looking north-east
- VP26 Users of Sawston Road and the cycleway looking west
- VP27 Users of Footpath 12 / 9 and residents in properties north of Sawston Road looking south
- VP28 Users of Sawston Road and High Street looking east
- VP30 Users of Footpath 12 / 4 looking south and south-east and Footpath 4 / 3 looking west

7.5.2 At the opening year, there will be significant adverse landscape effects to the Granta River Valley LCA and significant adverse visual effects for the following visual receptors:

- VP4 Users of National Cycle Route 11 / DNA Cycle Path (PPA / 0155) looking south
- VP7 Users of National Cycle Network Route 11 / DNA Cycle Path (PPA / 0155) looking north
- VP8 Residents at White Hill Farm, Nine Wells House and White Hill House, and users of the permissive bridleway looking south-west
- VP14 Residents on Hinton Way and Coppice Avenue looking north-east
- VP15 Residents on Mingle Lane, Duke's Meadow and the western end of Gog Magog Way and visitors to St Andrew's Church and Stapleford Cemetery looking north-east
- VP16 Residents on Haverhill Road, Chalk Hill and at the eastern end of Gog Magog Way looking north-east
- VP17 Residents of Middlefield Cottage, South Hill House, the House on the Hill and other residences on Fox Hill and users of Haverhill Road looking south and south-west
- VP19 Users of Bridleway 212 / 2 and residents on Haverhill Road looking east
- VP20 Users of Bridleway 212 / 2 looking west
- VP22 Users of Restricted Byway 12 / 10 and residents of North Farm looking south-west
- VP24 Residents on Babraham Road, Lynton Way and Stanley Webb Close looking east and south-east
- VP25 Users of Footpaths 179 / 1, 179 / 2, 196 / 12 and 196 / 14 looking north-east
- VP26 Users of Sawston Road and the cycleway looking west
- VP30 Users of Footpath 12 / 4 looking south and south-east and Footpath 4 / 3 looking west

7.5.3 After 15 years, the landscape planting will have established, offering screening or softening for visual receptors and providing integration by softening the appearance of the Proposed Development within the wider landscape. There will remain a moderate adverse and significant landscape effect to the Granta River Valley LCA, and moderate adverse and significant visual effects for the following visual receptors:

- VP4 Users of National Cycle Route 11 / DNA Cycle Path (PPA / 0155) looking south
- VP16 Residents on Haverhill Road, Chalk Hill and at the eastern end of Gog Magog Way looking north-east
- VP20 Users of Bridleway 212 / 2 looking west
- VP22 Users of Restricted Byway 12 / 10 and residents of North Farm looking south-west
- VP24 Residents on Babraham Road, Lynton Way and Stanley Webb Close looking east and south-east
- VP26 Users of Sawston Road and the cycleway looking west
- VP30 Users of Footpath 12 / 4 looking south and south-east and Footpath 4 / 3 looking west

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8. Cumulative effects

8.1 Background

8.1.1 The inter project cumulative effects assessment in the original ES was undertaken in December 2024. Due to the subsequent elapsed time, the longlist of developments has been reviewed to see if any new developments that could give rise to cumulative effects have been proposed. This chapter includes the revised longlist of developments, and the assessment of the subsequent revised shortlist of developments. The method for undertaking the cumulative effects assessment remains the same as set out in the original ES.

8.1.2 The original ES identified significant cumulative effects on Landscape Character Areas (LCAs). Since completion of the ES, the LCA baseline has been updated and a revised landscape character assessment methodology has been introduced. As a result, the cumulative effects assessment has been reassessed and updated within this Addendum (see section 8.3).

8.2 Updated longlist of developments

8.2.1 There are 12 new developments that have been proposed since the inter project cumulative effects assessment was undertaken in the original ES and which meet the criteria for the longlist. These are set out in Table 8-1. Note that Table 8-1 does not show the developments that were included in the original ES. Figure 8-1 shows the location of the long list of developments.

Table 8-1 Updated longlist of developments

ID	Development	Certainty of outcome (PINS methodology)	Certainty of outcome (other methodology)	Current status of development	Distance from Order Limits based on grid reference for development	Grid reference	Description and planning status	Availability of environmental information	Inclusion in assessment
ID64	Former Comfort Cafe Fourwentways Newmarket Road Little Abington Cambridgeshire CB21 6AP	Tier 1	Certain	25/04728/FUL - approved Wed 10 Jun 2026	c 300m	Easting 552227 Northing 249844	Demolition of existing buildings/hardstanding and erection of commercial building (use classes E(g)(ii), E(g)(iii), B2 and B8 to be applied flexibly) with associated substation, access, parking, landscaping and associated infrastructure works.[3521sqm]	No EIA. Planning application supported by a Planning Statement, Transport Assessment and Travel Plan, Flood Risk Assessment and Drainage Strategy, Preliminary Ecological Appraisal and supporting ecology surveys, Arboricultural Impact Assessment, Noise Impact Assessment, Air Quality Assessment, Landscape Strategy, Geo-environmental Assessment and associated technical drawings and reports.	Scoped in. Consented employment development located approximately 300 m from the Scheme. The scale, proximity and nature of the proposal indicate potential for cumulative effects relating to Traffic and Transport, Air Quality, Noise and Vibration, Climate Change and Materials and Waste. Sufficient environmental information is available to inform the cumulative effects assessment.

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ID	Development	Certainty of outcome (PINS methodology)	Certainty of outcome (other methodology)	Current status of development	Distance from Order Limits based on grid reference for development	Grid reference	Description and planning status	Availability of environmental information	Inclusion in assessment
ID65	Land West Of Newmarket Road Great Abington Cambridgeshire	Tier 1	Certain	26/02585/FUL - awaiting decision Fri 30 Oct 2026	c. 1km	551936.06 249149.89	Development of a Racquets Club comprising four padel courts, two pickleball courts, clubhouse facilities, access, car and cycle parking provision and associated landscaping and infrastructure works	No EIA. Planning application supported by planning and technical documentation proportionate to the scale of the development. Information is available through the planning application and supporting submissions to understand the nature, location and likely environmental effects of the proposal.	Scoped out. Located approximately 1 km from the Scheme, the development is situated towards the western extent of the Scheme and would have limited interaction with the main construction activities and receptors associated with the Scheme. Owing to its modest scale and low traffic generation, significant cumulative effects are not anticipated. The proposal is therefore not considered likely to contribute materially to cumulative environmental effects and has not been taken forward to the short list for detailed cumulative assessment.
ID66	Babraham Research Campus 101 High Street Babraham Cambridgeshire CB22 3AT	Tier 3	Uncertain	25/00340/SCOP - Wed 05 Mar 2025 decided	c 800m	551351.14 250548.79	EIA Scoping Opinion request pursuant to Regulation 15 of the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended) Scheme consists of an outline application (all matters reserved apart from access) for mixed-use development at Babraham Research Campus including employment (laboratory and office) floorspace (Class E(g)(i)(ii)), up to 83 residential dwellings (Class C3), supporting community uses and social infrastructure including a nursery, retail space and community facilities, one multi storey car park, associated landscaping, demolition and infrastructure works	EIA Scoping Report and Scoping Opinion available. Environmental topics identified for assessment include transport and access, air quality, noise and vibration, landscape and visual effects, ecology, archaeology and cultural heritage, flood risk, drainage, socio-economics and climate-related matters.	Scoped out. The Scoping Opinion relates to the same development proposal as planning application 25/04634/OUT, (ID67). Inclusion of both applications would result in duplication and therefore this earlier Scoping Opinion has not been taken forward to the short list.

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ID	Development	Certainty of outcome (PINS methodology)	Certainty of outcome (other methodology)	Current status of development	Distance from Order Limits based on grid reference for development	Grid reference	Description and planning status	Availability of environmental information	Inclusion in assessment
ID67	Babraham Research Campus High Street Babraham Cambridgeshire CB22 3AT	Tier 1	Certain	25/04634/OUT - Application Received: 1 Dec 2025 Expiry Date: Mon 30 Nov 2026 Awaiting decision	c 800m	551351.14 250548.79	Outline application (all matters reserved apart from access) for mixed-use development at Babraham Research Campus including employment (laboratory and office) floorspace (Class E(g)(i)(ii)), up to 83 residential dwellings (Class C3), supporting community uses and social infrastructure including a nursery (Class E(f)), retail uses and community facilities (Class E(a,b,d), Class F2 (a-b)), one multi-storey car park, associated landscaping and works, demolition and infrastructure works.	EIA development with environmental information available through the planning application and associated EIA Scoping documentation.	Scoped in. Tier 1 mixed-use development located approximately 800 m from the Scheme. The scale and nature of the proposal, including employment floorspace, residential development and supporting infrastructure, indicate potential for cumulative effects, particularly in relation to traffic and transport and landscape and visual. Sufficient environmental information is available to enable consideration within the cumulative effects assessment.
ID68	Dales Manor Business Park Grove Road Sawston Cambridgeshire CB22 3TJ	Tier 1	Certain	26/02432/OUT Application Received: 26 Jun 2026 Agreed expiry date: Fri 13 Nov 2026 Awaiting decision	adjacent to the development	549273.27 250199.74	Outline planning application for the phased construction of flexible employment units Eg (ii), Eg (iii), B2, B8 with ancillary office, together with associated service areas, new access points, multi-storey car park, multi-storey cycle park and wellness centre, landscaping and associated works and infrastructure with some matters reserved apart from access.	No EIA identified at this stage. The outline planning application is supported by planning and technical documentation expected to include transport, access, drainage, ecology, landscape and other environmental considerations commensurate with the scale of the proposal. Sufficient information is available through the planning application description and supporting documents to understand the nature, scale and location of the development for cumulative assessment purposes.	Scoped in. Given its scale, proximity and potential overlap in construction and operational periods with the Scheme, there is potential for cumulative effects relating to traffic and transport, air quality, noise and vibration and landscape and visual impact. Sufficient environmental information is available to enable consideration within the cumulative effects assessment.

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ID	Development	Certainty of outcome (PINS methodology)	Certainty of outcome (other methodology)	Current status of development	Distance from Order Limits based on grid reference for development	Grid reference	Description and planning status	Availability of environmental information	Inclusion in assessment
ID69	Sawston Village College 12 New Road Sawston Cambridgeshire CB22 3BP	Tier 1	Certain	24/04406/FUL Decision: Thu 27 Feb 2025			Demolition of eight existing school buildings (Blocks EFAD, EFAF, EFAK, EFAL, EFAM, EFAN, ANC1, ANC2), refurbishment of the Marven Centre (Block EFAH) and Blocks EFAG and EFAI, and the refurbishment and single-storey extension to the sports block (EFAC), and construction of a new replacement two-storey school building, along with access, parking, landscaping and associated infrastructure.	Full planning application supported by numerous technical assessments and supporting documentation, including construction-related information and associated surveys.	Scoped out. Construction works have already commenced and/or substantially progressed and the development is therefore considered part of the existing baseline environment. Any effects associated with the development are captured within the baseline conditions and are not considered a future cumulative development for the purposes of the cumulative effects assessment.
ID70	Building B Granta Park Great Abington Cambridgeshire CB21 6GP	Tier 1	Certain	26/03410/FUL - application received 7 Sept 2026 Awaiting decision	1km	Easting: 552519 Northing: 248873	Erection of a temporary indoor padel tennis centre comprising 6 covered courts and a coaching court with reception and ancillary cafe, together with changing accommodation, parking, cycle parking, landscaping, drainage works and associated infrastructure (meanwhile use). - 1950 sqm of floor space	Full planning application supported by planning, transport and technical documentation available through the planning application.	Scoped out. Whilst the proposal is a Tier 1 development, it comprises a relatively small-scale temporary leisure facility within the existing Granta Park employment campus. Given the scale, nature and temporary use of the development, there is limited potential for significant cumulative effects with the Scheme. No material cumulative effects pathways have been identified and the development has therefore not been taken forward to the short list.

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ID	Development	Certainty of outcome (PINS methodology)	Certainty of outcome (other methodology)	Current status of development	Distance from Order Limits based on grid reference for development	Grid reference	Description and planning status	Availability of environmental information	Inclusion in assessment
ID71	Land Between Mingle Lane And Hinton Way Stapleford Cambridgeshire	Tier 3	Uncertain	26/02928/SCRE Application received - Fri 31 Jul 2026 Awaiting decision	100m	Easting: 547287 Northing: 252596.19	EIA Screening Opinion under the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 for up to 400 new dwellings including provision of affordable housing.	EIA Screening Opinion request only. Limited environmental information is currently available through the screening submission and planning application documentation. No Environmental Statement or detailed technical assessments have been submitted at this stage. Information available is sufficient to identify the broad nature, scale and location of the proposed development.	Scoped out. Application 26/02928/SCRE relates to an EIA Screening Opinion request for a residential-led development of up to 400 dwellings, including affordable housing. The proposal remains at a very early stage in the planning process, with no planning application or detailed environmental information currently available. As a screening request only, there is considerable uncertainty regarding the final form, scale, design and delivery timescales of the development. Whilst relatively close to the Scheme, the available information is insufficient to identify meaningful cumulative environmental effects with confidence. The proposal is therefore not considered a reasonably foreseeable development for detailed cumulative assessment at this stage and has not been taken forward to the short list.
ID72	Land Between Hinton Way And Mingle Lane, Great Shelford And Stapleford	Tier 3	Uncertain	26/00610/OUT Refused	<500m		Outline planning application (all matters reserved except means of access) for residential development of up to 110 houses, including affordable dwellings, together with open space, play areas, landscaping, land for ecological purposes, drainage and associated works.	Comprehensive planning application supported by transport, air quality, ecology, flood risk and other technical assessments.	Scoped out. The application was refused planning permission and there is no evidence of an active appeal. The development is therefore not considered sufficiently certain to come forward and is unlikely to contribute to future cumulative effects. Accordingly, it has not been taken forward to the short list.

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ID	Development	Certainty of outcome (PINS methodology)	Certainty of outcome (other methodology)	Current status of development	Distance from Order Limits based on grid reference for development	Grid reference	Description and planning status	Availability of environmental information	Inclusion in assessment
ID73	Land North East Of Davey Field Cambridge Road Great Shelford Cambridgeshire	Tier 1	Certain	26/01933/OUT Application validated: Wed 24 Jun 2026 Determination Deadline: Wed 23 Sep 2026 Awaiting decision	c400m	545379.76 253315.55	Outline planning application (all matters reserved except means of access) for residential development of up to 100 houses, including affordable dwellings, together with open space, play areas, landscaping, land for ecological purposes, drainage and associated works.	No EIA identified. The outline planning application is supported by planning and technical information appropriate to the proposed residential development, including information relating to access, drainage, ecology, landscaping and other environmental considerations. Sufficient information is available through the planning application documentation to understand the nature, scale and location of the proposal for cumulative assessment purposes.	Scoped in. The site is located approximately 400 m from the Scheme and has the potential to interact cumulatively with the Scheme through shared use of the local highway network, particularly Cambridge Road and surrounding junctions. Construction traffic associated with both developments could occur concurrently, resulting in the potential for cumulative effects relating to traffic and transport, and associated secondary effects such as noise and air quality. Sufficient environmental information is available to enable consideration within the cumulative effects assessment and the application has therefore been taken forward to the short list for further assessment.

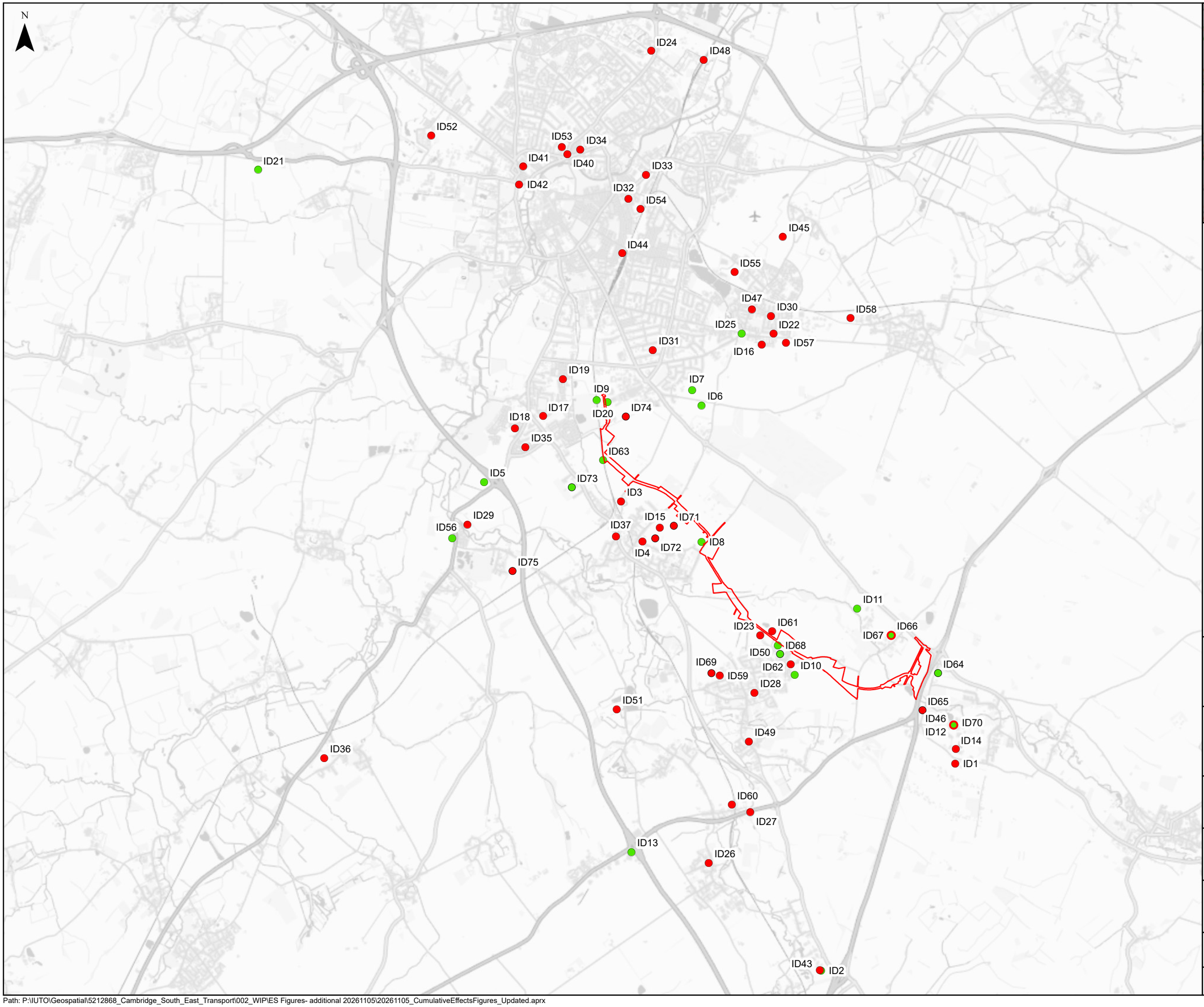
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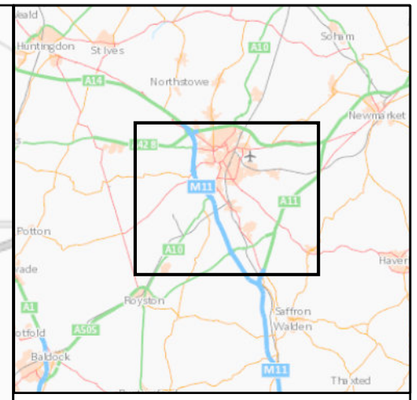
ID	Development	Certainty of outcome (PINS methodology)	Certainty of outcome (other methodology)	Current status of development	Distance from Order Limits based on grid reference for development	Grid reference	Description and planning status	Availability of environmental information	Inclusion in assessment
ID74	Land South Of Dame Mary Archer Way Cambridge Biomedical Campus Cambridge Cambridgeshire	Tier 1	Uncertain	26/01066/REM - Granted Permission 17 Jul 2026	<100m		Reserved Matters Application pursuant to 16/0176/OUT for all matters (access, appearance, landscaping, layout and scale) relating to the development of a mixed-use laboratory and office building (4000 Discovery Drive) including associated plant, access, car parking, cycle parking, landscaping, public open space, and other works, and the discharge of Conditions 8 (Transport spurs), 10 (Energy Demand), 14 (EV Charging), 31 (On Plot Cycle and Pedestrian Facilities), 33 (Car Parking Spaces), 36 (Disabled Car Parking Spaces), 37 (Cycle Parking Spaces), 39 (Ecological Conservation Management Plan), 41 (Drainage), 43 (Sustainability), 48 (Waste), and 49 (Landscape) of Planning Permission 16/0176/OUT.	Reserved Matters application supported by detailed plans, landscaping, transport, drainage, sustainability and ecology information, with approximately 96 documents available.	Scoped out. Already assessed the Cumulative effects of the Outline Application (ID20 in the original ES).

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ID	Development	Certainty of outcome (PINS methodology)	Certainty of outcome (other methodology)	Current status of development	Distance from Order Limits based on grid reference for development	Grid reference	Description and planning status	Availability of environmental information	Inclusion in assessment
ID75	Street Record High Street Hauxton Cambridgeshire	Tier 3	Uncertain	26/02161/SCRE - Decided 26 June 2026 - not requred	544271.32 251751.24	c. 3km from development	EIA Screening Opinion under the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 for residential development with an upper limit 140 homes.	EIA Screening Opinion request available. Limited environmental information is currently available through the screening submission and associated planning documentation. No Environmental Statement or detailed technical assessments have been submitted. Information available is sufficient to identify the broad nature, scale and location of the proposed development.	Scoped out. The proposal remains at an early stage in the planning process, with no planning application currently submitted and limited environmental information available. The site is located approximately 3 km from the Scheme and is separated from the main construction activities and sensitive receptors associated with the Scheme. Given the distance from the Scheme, the relatively modest scale of the residential proposal, and the uncertainty regarding the final form, design and delivery programme of the development, significant cumulative effects are not anticipated. The proposal is therefore not considered a reasonably foreseeable development for detailed cumulative assessment at this stage and has not been taken forward to the short list.

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Order Limit

Cumulative Effects Assessment

- Scoped in
- Scoped out
- Scoped out

Linear schemes with no preferred route (ID38 and ID39) not shown on the map.

Metres

0 1,000 2,000

Service Layer Credits: Source ESRI, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
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AtkinsRéalis
2 Atlantic Square
York Street
Glasgow
G2 8NJ

Client

GREATER CAMBRIDGE PARTNERSHIP

Project

CAMBRIDGE SOUTH EAST TRANSPORT PHASE 2

Title

COMMITTED DEVELOPMENTS

Sheet Size	Original Scale	Designed / Drawn	Checked	Authorised
A3	1:65,000	LHu	BT	ML
		Date 09/11/26	Date 09/11/26	Date 09/11/26

Drawing Number: FIGURE 18.1

Rev: 01

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8.3 Updated cumulative effects assessment of short listed developments

8.3.1 Four of the long-listed developments have been scoped in for further cumulative effects assessment. In addition, five inter-project cumulative effects identified as significant in the original ES have been reassessed, as the LCA baseline has since been updated and may result in different significance conclusions.

8.3.2 Table 8-2 sets out the cumulative effects assessment for the four short listed developments and the five landscape character cumulative assessments.

8.3.3 Significant adverse cumulative effects identified in Table 8-2 are the same as reported in the original ES, but refer to cumulative effects on the updated Landscape Character Areas identified in Chapter 7. No new significant cumulative effects have been identified in the updated cumulative effects assessment.

Table 8-2 Updated assessment of inter-project cumulative effects

ID	Planning application ref. and development location	Inter-project cumulative effects during construction and proposed mitigation	Inter-project cumulative effects during operation and proposed mitigation	Likely residual effect
ID64	25/04728/FUL - approved Wed 10 Jun 2026 Former Comfort Cafe Fourwentways Newmarket Road Little Abington Cambridgeshire CB21 6AP	The Planning Application comprises the demolition of existing buildings and hardstanding and the construction of a 3,521 m² commercial development (Use Classes E(g)(ii), E(g)(iii), B2 and B8), together with associated infrastructure works. The site is located approximately 300 m from the Scheme, on the opposite side of the A11. Potential inter-project effects could arise in relation to Traffic and Transport, Air Quality, Noise and Vibration, Climate Change and Materials and Waste. There is potential for cumulative traffic effects on the surrounding road network, particularly the A11 and associated junctions, should construction traffic from both developments utilise the same routes during overlapping construction periods. However, these effects would be temporary, localised and limited to the construction phase. The A11 and associated junctions are part of the Strategic Road Network with capacity to take large volumes of traffic. Consequently, any cumulative traffic effects arising from concurrent construction activities are not anticipated to result in a significant adverse effect. Potential cumulative effects relating to air quality and noise may arise from increased construction traffic movements, on-site plant and construction activities occurring simultaneously across both sites. However, given the separation distance between the developments, the relatively small scale of the Planning Application and the temporary nature of construction activities, any cumulative effects are expected to be limited in extent and duration and not significant. Inter-project effects could also arise in relation to Climate Change through combined greenhouse gas emissions associated with construction materials, transport and installation activities. However, even when considered cumulatively, the scale of emissions generated by the two developments is not expected to result in a significant adverse effect. Limited cumulative effects may also arise in relation to Materials and Waste through additional demand on waste management infrastructure and construction materials during overlapping construction periods. However, established waste management infrastructure and embedded construction waste management measures are expected to ensure any such effects remain negligible and not significant.	No residual significant cumulative effects are anticipated during operation.	Slight adverse, not significant.

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ID	Planning application ref. and development location	Inter-project cumulative effects during construction and proposed mitigation	Inter-project cumulative effects during operation and proposed mitigation	Likely residual effect
ID67	25/04634/OUT Application Received: 1 Dec 2025 Expiry Date: Mon 30 Nov 2026 Awaiting decision Babraham Research Campus High Street Babraham Cambridgeshire CB22 3AT	The Planning Application comprises an outline application (with all matters reserved except access) for a mixed-use expansion of Babraham Research Campus, including employment floorspace (laboratory and office uses), up to 83 residential dwellings, supporting community uses and social infrastructure, a nursery, retail and community facilities, a multi-storey car park, associated landscaping, infrastructure works and demolition. The site is located at the existing Babraham Research Campus and represents a substantial expansion of the established employment and innovation campus. Potential cumulative effects during construction could arise in relation to Traffic and Transport should construction activities associated with both developments occur concurrently. Construction traffic generated by both developments may utilise sections of the surrounding highway network, including the A1307 and associated junctions, resulting in a temporary increase in HGV movements and construction-related traffic. However, the ES prepared for the Planning Application identified only negligible transport effects during construction, with anticipated traffic increases remaining below significance thresholds. Any cumulative traffic effects would therefore be temporary, localised and limited to the construction phase. Construction Traffic Management Plans and associated mitigation measures would further minimise impacts on the local highway network. Consequently, significant cumulative construction effects are not anticipated. Significant cumulative landscape and visual effects are not anticipated due to the established nature of the Babraham Research Campus and the extensive vegetation screening surrounding the site, which limits inter-visibility between the developments.	During operation, potential cumulative effects could arise in relation to Traffic and Transport as a result of vehicle movements generated by both developments. The Planning Application would introduce additional employment, residential and community uses which would generate additional traffic on the local highway network, including the A1307 and A11 corridors. However, the Transport Assessment submitted in support of the Planning Application concluded that the development could be accommodated on the highway network without significant effects, with operational transport impacts assessed as negligible to minor adverse. Furthermore, the ES for the Scheme identifies an overall beneficial effect on transport and connectivity. Given the scale of the surrounding highway network, the embedded transport mitigation measures associated with both developments and the findings of the respective transport assessments, significant cumulative operational traffic effects are not anticipated.	Slight adverse, not significant.
ID68	26/02432/OUT Application Received: 26 Jun 2026 Agreed expiry date: Fri 13 Nov 2026 Awaiting decision Dales Manor Business Park Grove Road Sawston Cambridgeshire CB22 3TJ	The Planning Application comprises an outline application for the phased construction of flexible employment units (Use Classes E(g)(ii), E(g)(iii), B2 and B8), ancillary office accommodation, associated service areas, new access points, a multi-storey car park, multi-storey cycle park, wellness centre, landscaping and associated infrastructure works. The site is located immediately adjacent to the Scheme. Potential cumulative effects during construction could arise in relation to Traffic and Transport, Air Quality, Noise and Vibration, and Landscape and Visual Amenity. Construction traffic from both developments may utilise the same sections of the local highway network, whilst concurrent construction activities may result in temporary increases in noise, dust and visual disturbance. Potential cumulative landscape and visual effects may arise from the simultaneous presence of construction compounds, plant, machinery and construction activities across both sites. However, these effects would be temporary in nature and would be experienced within the context of an existing commercial and employment area undergoing development. Overall, any cumulative effects would be temporary, localised and limited to the construction phase. Embedded mitigation measures, including Construction Environmental Management Plans (CEMPs) and Construction Traffic Management Plans (CTMPs), would reduce potential impacts. Consequently, significant cumulative construction effects are not anticipated.	No residual significant cumulative effects are anticipated during operation.	Slight adverse, not significant.

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ID	Planning application ref. and development location	Inter-project cumulative effects during construction and proposed mitigation	Inter-project cumulative effects during operation and proposed mitigation	Likely residual effect
ID73	26/01933/OUT Application validated: Wed 24 Jun 2026 Determination Deadline: Wed 23 Sep 2026 Awaiting decision Land North East Of Davey Field Cambridge Road Great Shelford Cambridgeshire	The Planning Application comprises an outline application (all matters reserved except access) for the construction of up to 100 residential dwellings, including affordable housing, together with open space, play areas, landscaping, land for ecological enhancement, drainage infrastructure and associated works. The site is located approximately 400 m from the Scheme. Potential cumulative effects during construction could arise in relation to Traffic and Transport, Air Quality, and Noise and Vibration. Construction traffic associated with both developments may utilise Cambridge Road and surrounding junctions, resulting in temporary increases in vehicle movements. Concurrent construction activities may also give rise to temporary increases in construction noise and dust. However, any cumulative effects would be temporary, localised and limited to the construction phase. Standard construction management measures, including Construction Environmental Management Plans (CEMPs) and Construction Traffic Management Plans (CTMPs), would reduce potential impacts. Consequently, significant cumulative construction effects are not anticipated.	During operation, potential cumulative effects could arise primarily in relation to Traffic and Transport as a result of additional vehicle movements generated by the residential development and the Planning Application. The Planning Application would generate additional resident, visitor and servicing trips on the local highway network, including Cambridge Road and surrounding junctions. Potential indirect effects on air quality may also arise as a result of increased traffic movements. However, the Scheme incorporates a Park & Ride facility which is intended to encourage modal shift away from private car use, helping to reduce traffic volumes and congestion on the surrounding highway network. As such, the Scheme is anticipated to have an overall beneficial effect on traffic and transport. Given the relatively modest scale of the Planning Application and the transport mitigation that would be secured through the planning process, any cumulative operational traffic effects are expected to be limited and not significant. Consequently, significant cumulative operational effects are not anticipated.	Slight adverse, not significant.
5	Southwest Travel Hub Planning application approved at committee. Decision issued on 28 July 2022.	Inter-project effects could arise on the landscape character of the Cam & Granta Tributaries Lowland Farmland LCA from both the Scheme and the other development, if construction works on both developments took place concurrently. Presence of construction activity will mean that there is a reduction in existing levels of tranquillity although it is noted that the scheme is adjacent to the M11 Junction 11 so this part of the LCA is not tranquil. Construction lighting will temporarily increase the extent of lit areas in the largely unlit LCA, although again this is in the context of the M11 Junction 11 which is lit. The construction works will be out of character with the existing rural, farmed landscape and will affect a substantial proportion of the LCA. Whilst any adverse effects would be temporary, they would be major and therefore result in a significant large adverse inter-project effects on the LCA at all hours. compounds, materials stockpiles and construction machinery would directly and indirectly impact the landscape character of the Cam & Granta Tributaries Lowland Farmland LCA.	Significant cumulative impacts could arise on the Cam & Granta Tributaries Lowland Farmland LCA in the first year of operation due to the planting not providing sufficient screening of the Scheme and the other development. By year 15, the impact would be considered not significant as the planting would have established. The cumulative effects would be moderate adverse in the first year, decreasing to slight adverse as the maturing tree-lined hedgerows and planting will gradually integrate the Scheme and the other development into the surrounding landscape of farmland.	Significant adverse residual effect to the Cam & Granta Tributaries Lowland Farmland LCA during construction and the opening year of the Proposed Development, but not at the design year, 15 years after opening.

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ID	Planning application ref. and development location	Inter-project cumulative effects during construction and proposed mitigation	Inter-project cumulative effects during operation and proposed mitigation	Likely residual effect
6	Land at Newbury Farm, Babraham Road 19 / 1168 / OUT approved on 24.05.21 RM application (21 / 04186 / REM) for phase 1 (infrastructure works) 21.10.22	Potential inter-project effects could arise in relation to the local landscape character areas (Cam & Granta Tributaries Lowland Farmland LCA), and to breeding and overwintering birds. However, the effects are expected to be temporary as the landscape design would provide mitigation for breeding and wintering birds.	No significant cumulative impacts identified during operation due to the distance of the other development from the Scheme (1.4 kilometres); therefore, no significant effects are anticipated.	Cam & Granta Tributaries Lowland Farmland LCA moderate adverse and significant effects during construction Breeding and overwintering birds slight adverse and not significant during construction.
7	Netherhall Farm Worts Causeway CB1 8RJ 20 / 01972 / OUT - Approved (T) 07.01.22	Potential inter-project effects could arise in relation to the local landscape character areas (Cam & Granta Tributaries Lowland Farmland LCA), and to breeding and overwintering birds. However, the effects are expected to be temporary as the landscape design would provide mitigation for breeding and wintering birds.	No significant cumulative impacts identified	Cam & Granta Tributaries Lowland Farmland LCA moderate adverse and significant effects during construction Breeding and overwintering birds slight adverse and not significant during construction.

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ID	Planning application ref. and development location	Inter-project cumulative effects during construction and proposed mitigation	Inter-project cumulative effects during operation and proposed mitigation	Likely residual effect
8	Land between Haverhill Road and Hinton Way Stapleford Cambridge Appeal Allowed Dec 21. RM application 22 / 04303 / REM submitted on 27 Sept 2022 (20 / 02929 / OUT)	Limited information in the planning statement to state whether breeding birds, arable weeds, GCN and badgers will be affected by the construction works. Biodiversity enhancements in the form of a proposed countryside park, are designed to maximise the value of the Public Open Space.	Potential for Inter-Project cumulative effects, and a limited element of harm, to the setting of Little Trees Hill Scheduled Monument. The scheme's Heritage Statement concludes that the level of 'less than substantial harm' is low to medium and therefore sits at the lowest end of the spectrum of less than substantial harm. The archaeological significance of the monument can still be appreciated and understood within its wider chalk downland context. Significant cumulative effects are not anticipated. The planning statement concludes that there will be moderate adverse effects for some of the assessed viewpoints, although it does not specify where these are. It is assumed that these would be from the Gog Magog Hills to the north where the greatest visibility of site is achieved. The predicted visual impact to Viewpoint 18, from the Gog Magog Hills from the Proposed Development is slight adverse. A slight cumulative effect would result from the Stapleford Retirement Village filling in the gap between the Proposed Development and the northern boundary of Stapleford resulting in an encroachment into the open countryside. The Landscape Officer consultation response concludes that there would also be significant adverse landscape effects. The Proposed Development assesses the Cam & Granta Tributaries Lowland Farmland LCA to receive slight adverse effects which could result in a slight adverse cumulative effect.	Viewpoint 18 – Slight adverse cumulative effect that would not be significant during operation. Cam & Granta Tributaries Lowland Farmland LCA - Slight adverse cumulative effect that would not be significant during operation.

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ID	Planning application ref. and development location	Inter-project cumulative effects during construction and proposed mitigation	Inter-project cumulative effects during operation and proposed mitigation	Likely residual effect
63	East West Rail Connection Stage 3	There is a proposed construction compound in the area of land between the existing West Anglian Main Line, Granham's Road, and the Proposed Development. This would be adjacent to the Proposed Development's satellite construction compound 6. As the scheme and the Proposed Development are adjacent to each other, there is likely to be a cumulative landscape effect on the Cam & Granta Tributaries Lowland Farmland LCA which both projects are situated within. A major significant adverse effect is predicted to occur to the Cam & Granta Tributaries Lowland Farmland LCA as a result of the Proposed Development. The East West Rail construction site and compound in this area is of a similar scale to the Proposed Development and is likely to result in a moderate adverse cumulative effect. The construction compounds for both projects will use Granham's Road for access resulting in cumulative construction traffic effects as it is anticipated that construction traffic routes will be the same or similar for both projects to avoid residential areas as far as possible. Whilst construction traffic effects for users of Granham's Road are assessed as minor or slight and not significant, combined construction traffic flows from both projects have the potential to result in a moderate adverse cumulative effects. Both projects cross Hobson's Brook. The Proposed Development has been assessed to cause neutral effects to the watercourse with the proposed mitigation in place during construction. Construction of the East West Rail scheme is likely to cause similar effects and is expected to implement similar best practice measures to minimise the construction effects on surface water bodies. Any potential cumulative effect would be slight or neutral. Construction phase impacts could be mitigated through close coordination and phasing of both schemes to minimise and potentially avoid any overlap in construction programme. Whilst this may result in longer duration construction phase effects, the scale of effects would be reduced.	Once both schemes are operational there will be a cumulative landscape effect on the Cam & Granta Tributaries Lowland Farmland LCA caused by an effective doubling in width of the existing railway corridor adjacent to the Proposed Development. A significant effect is predicted to occur to this LCA from the Proposed Development, but this is due to the Proposed Development introducing new infrastructure into a large extent of the LCA. The addition of the East West Rail scheme would double the width of the existing rail corridor so would not be a new infrastructure element, but an extension of an existing landscape feature. The East West Rail scheme would only affect a small part of the LCA so the cumulative effect would be slight and not significant. The East West Rail scheme would double the width of the railway overbridge crossing Hobson's Brook. This would result in additional shading of the watercourse and a consequential reduction in aquatic habitat quality. The same effect would occur from the Proposed Development which has been assessed as not significant. There would be a cumulative shading effect from both schemes that would cause a cumulative reduction in habitat quality. This is likely to be a slight adverse cumulative effect.	During construction there is likely to be moderate adverse cumulative effects which would be significant on the Cam & Granta Tributaries Lowland Farmland LCA, and users of Granham's Road. If construction phasing can be planned to avoid or minimise construction programme overlap, this could reduce the effect to neutral. During operation there would be a slight adverse cumulative effect which would not be significant on the Cam & Granta Tributaries Lowland Farmland LCA. This effect has been mitigated as far as possible and no further mitigation is proposed. There would be a slight adverse cumulative effect which would not be significant on Hobson's Brook from both schemes due to the combined effect of shading causing a reduction in habitat quality.

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9. Conclusion

9.1.1 The three proposed changes are minor, and none would result in significant effects. Appropriate mitigation to minimise effects has already been identified in the ES, and no further mitigation is necessary as a result of any of the changes.

9.1.2 The assessment of the effects of dewatering the foundations of the three watercourse crossings has identified the need for additional mitigation and monitoring to prevent significant effects arising to surface and ground water bodies. This would be a permittable activity and the Environment Agency would need to agree the necessary mitigation and monitoring prior to issuing a permit. No significant effects are predicted to arise.

9.1.3 The assessment of effects on Hobson's Park CWS has concluded that mitigation already identified in the original ES will prevent significant effects from arising during both construction and operation.

9.1.4 The updated landscape and visual impact assessment has a revised landscape baseline with different landscape character areas (LCAs) than assessed in the original ES. The impact to landscape character has not changed since the original ES, but because the boundaries and names of the LCAs assessed in this ES Addendum differ from those assessed in the original ES the description of the significant landscape effects has changed. There is still just one LCA that would be significantly impacted, Granta River Valley LCA 9D. The visual assessment has been refreshed to reflect the updated method but there is no change in the conclusions. No new mitigation has been identified.

9.1.5 The cumulative effects assessment has been updated to take into account recently proposed developments since the submission of the original ES and the updated landscape and visual impact assessment. No new significant cumulative effects have been identified.

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Appendix A. Updated Biodiversity Net Gain (BNG) assessment

A.1 Introduction

A.1.1 The Environmental Assessment for the proposed Cambridge South East Transport (CSET) scheme (hereafter referred to as the Scheme) was published in January 2025. Although Biodiversity Net Gain (BNG) is not a mandatory requirement for a Transport and Works Act Order (TWAO) application, a voluntary BNG assessment was undertaken for the Scheme to help quantify habitat loss and creation. This assessment was submitted as Appendix 10.12 in support of the Environmental Impact Assessment (EIA). However, since submission of the application documents, minor amendments have been undertaken to the Scheme boundary. Therefore, this Appendix has been produced to update the BNG assessment as a result of minor alterations to the Scheme boundary.

A.2 Background habitat summary

A.2.1 The desk study identified six statutory designated sites for nature conservation within 2 km of the Site. Of these, four were Sites of Special Scientific Interest (SSSI) and two were Local Nature Reserves (LNRs). A total of 24 non-statutory designated sites for nature conservation were identified within 2 km of the Site.

A.2.2 The desk study found no ancient woodland/ veteran trees within the Site during the desk study. Native hedgerows, lowland mixed deciduous woodland, and the River Granta are priority habitats within the Scheme boundary.

A.2.3 The majority of the Site comprised cropland composed of cereal and non-cereal crops. Other habitats include grassland comprising other neutral grassland and modified grassland predominantly in Good or Moderate condition, heathland and scrub comprising mixed scrub in Moderate condition, and a single non-priority pond in Poor condition. Other areas of the Site comprise existing roads and footpaths classified as developed land/ sealed surface for which there is no condition assessment. Urban trees are also present within the Site to the north of the Site. Woodland is also present on Site comprising other broadleaved and lowland mixed deciduous woodland.

A.2.4 The Site comprises native hedgerows predominately considered to be low distinctiveness in Moderate condition. Native hedgerow associated with bank or ditch and native hedgerow with trees of medium distinctiveness and Moderate or Good condition are also present. Native hedgerow associated with bank or ditch has been included as a hedgerow only in baseline unit calculations with the ditch assessed separately in the ditch assessment below.

A.2.5 Native species rich hedgerows present on Site predominantly comprised medium distinctiveness, without trees or banks/ ditches, in Moderate or Good condition. Native species rich hedgerow with trees of high distinctiveness in Good condition is also present.

A.2.6 Approximately 0.34 km of line of trees was recorded as being present on Site in either Poor condition due to their young age and being newly planted or as a precautionary Good condition as they were not accessed.

A.2.7 The river condition assessment found that all sub-reaches on the River Granta were of River Type H (straight-sinuous planform with a sand channel bed). Hobson's Brook was determined to have a River Type K (straight/sinuous with a silt channel bed).

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A.3 September 2024 BNG assessment

Baseline BNG assessment

A.3.1 The baseline BNG score for area habitats, hedgerow habitats, and watercourses are provided in Tables A.1 to A.3.

Table A.1 - Baseline area habitat scores and unit values within the Site

Broad habitat	Proposed habitat	Baseline area (ha)	Distinctiveness		Condition		Strategic significance		Baseline units	Retained area (ha)	Retained units
			Band	Score	Band	Score	Band	Score			
Urban	Bare ground	0.82	Low	2	Poor	1	Low	1	1.64	0.1275	0.26
Cropland	Cereal crops	95.52	Low	2	N/A	1	Low	1	191.04	0.1474	0.29
Urban	Developed land; sealed surface	3.68	V. Low	0	N/A - Other	0	Low	1	0.00	1.4115	0.00
Grassland	Other neutral grassland	0.58	Medium	4	Good	3	Low	1	6.96	0.0038	0.05
Grassland	Other neutral grassland	3.7	Medium	4	Moderate	2	Low	1	29.60	1.3357	10.69
Grassland	Other neutral grassland	3.57	Medium	4	Poor	1	Low	1	14.28	0.174	0.70
Grassland	Modified grassland	0.94	Low	2	Good	3	Low	1	5.64	0.0699	0.42
Grassland	Modified grassland	2.29	Low	2	Moderate	2	Low	1	9.16	0	0.00
Grassland	Modified grassland	0.5	Low	2	Poor	1	Low	1	1.00	0.1595	0.32
Heathland and shrub	Bramble scrub	0.03	Medium	4	N/A	1	Low	1	0.12	0.0083	0.03
Heathland and shrub	Mixed scrub	0.15	Medium	4	Moderate	2	Low	1	1.20	0.0524	0.42
Heathland and shrub	Mixed scrub	0.04	Medium	4	Poor	1	Low	1	0.16	0	0.00
Lakes	Ponds (non-priority habitat)	0.02	Medium	4	Poor	1	Low	1	0.08	0.0147	0.06
Woodland and forest	Lowland mixed deciduous woodland	0.02	High	6	Moderate	2	High	1.15	0.28	0	0.00
Woodland and forest	Lowland mixed deciduous woodland	0.65	High	6	Poor	1	High	1.15	4.49	0.6485	4.47
Woodland and forest	Other woodland; broadleaved	1.14	Medium	4	Moderate	2	Low	1	9.12	0	0.00
Woodland and forest	Other woodland; broadleaved	0.39	Medium	4	Poor	1	Low	1	1.56	0	0.00
Urban	Artificial unvegetated, unsealed surface	0.52	V. Low	0	N/A - Other	0	Low	1	0.00	0	0.00

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Broad habitat	Proposed habitat	Baseline area (ha)	Distinctiveness		Condition		Strategic significance		Baseline units	Retained area (ha)	Retained units
			Band	Score	Band	Score	Band	Score			
Individual trees	Urban tree	0.0814	Medium	4	Good	3	Low	1	0.98	0.0814	0.98
Individual trees	Rural tree	0.2484	Medium	4	Moderate	2	Low	1	1.99	0.2484	1.99
Totals		114.56 (114.89 incl. trees)							279.29	4.48	20.67

Table A.2 Baseline hedgerow habitat scores and unit values within the Site

Proposed habitat	Baseline length (km)	Distinctiveness		Condition		Strategic significance		Baseline units	Retained length (ha)	Retained units
		Band	Score	Band	Score	Band	Score			
Line of trees	0.56	Low	2	Good	3	Medium	1.1	3.70	0.52	3.43
Line of trees	0.06	Low	2	Moderate	2	Medium	1.1	0.26	0	0.00
Native hedgerow	1.54	Low	2	Good	3	High	1.15	10.63	1.14	7.87
Native hedgerow	0.25	Low	2	Moderate	2	High	1.15	1.15	0.2	0.92
Native hedgerow	0.01	Low	2	Poor	1	High	1.15	0.02	0.01	0.02
Native hedgerow - associated with bank or ditch	0.66	Medium	4	Good	3	High	1.15	9.11	0.62	8.56
Native hedgerow - associated with bank or ditch	0.93	Medium	4	Moderate	2	High	1.15	8.56	0.78	7.18
Native hedgerow with trees	0.32	Medium	4	Good	3	High	1.15	4.42	0.28	3.86
Native hedgerow with trees	0.19	Medium	4	Moderate	2	High	1.15	1.75	0.15	1.38
Non-native and ornamental hedgerow	0.32	V.Low	1	Poor	1	High	1.15	0.37	0.32	0.37
Species-rich native hedgerow	1.31	Medium	4	Good	3	High	1.15	18.08	1.26	17.39
Species-rich native hedgerow	0.08	Medium	4	Moderate	2	High	1.15	0.74	0	0.00
Species-rich native hedgerow	0.8	Medium	4	Poor	1	High	1.15	3.68	0.8	3.68
Species-rich native hedgerow - associated with bank or ditch	0.25	High	6	Good	3	High	1.15	5.18	0.25	5.18
Species-rich native hedgerow with trees	0.44	High	6	Good	3	High	1.15	9.11	0.29	6.00
Total	7.72							76.73	6.62	65.83

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Table A.3 On-site baseline watercourse units for rivers/ streams

Watercourse	Location	Length km (within the RLB)	River type (Distinctiveness)	Strategic significance	Condition	Extent of watercourse encroachment	Extent of riparian encroachment	Baseline WUs
River Granta (D1-S1)	Adjoining A11 and RLB at southern limit of Scheme	0.202	Priority Habitat (Very High)	Formally identified in local strategy (High)	Fairly Poor	Major	No Encroachment/ No Encroachment	1.39
River Granta (D1-S3)	Structure 8 crossing at Babraham	0.135	Priority Habitat (Very High)	Formally identified in local strategy (High)	Moderate	Major	Minor/ No Encroachment	1.22
River Granta (D2-S1)	Immediately upstream of D2-S2, near the Structure 6 crossing	0.373	Priority Habitat (Very High)	Formally identified in local strategy (High)	Moderate	No Encroachment	Moderate/ No Encroachment	6.31
River Granta (D2-S2)	Structure 6 crossing at Stapleford	0.132	Priority Habitat (Very High)	Formally identified in local strategy (High)	Fairly Poor	No Encroachment	Moderate/ No Encroachment	1.68
Hobson's Brook (D4-S1)	Structure 4 crossing near Addenbrooke's Road	0.144	Other Rivers and Streams (High)	Formally identified in local strategy (High)	Fairly Poor	No Encroachment	Major/ Moderate	1.19
D2E	Tributary of the River Granta near Structure 6	0.240	Ditches (Medium)	Low	Poor	No Encroachment	No Encroachment/ No Encroachment	0.96
D5A	Near Graham's Road	0.159	Ditches (Medium)	Low	Poor	No Encroachment	Minor/ No Encroachment	0.62
W2	Crossed by Structures 1, 2 and 3 near Addenbrooke's Road	0.153	Ditches (Medium)	Low	Poor	No Encroachment	No Encroachment/ No Encroachment	0.61
W3	Near Stapleford	0.121	Ditches (Medium)	Low	Poor	No Encroachment	No Encroachment/ No Encroachment	0.48
W4	Crossed by Structure 7 at Sawston	0.174	Ditches (Medium)	Low	Poor	No Encroachment	No Encroachment/ No Encroachment	0.70
W5	Near Sawston	0.472	Ditches (Medium)	Low	Poor	No Encroachment	No Encroachment/ No Encroachment	1.64
W6	Crossed by Structure 5 at Stapleford, near River Granta	0.468	Ditches (Medium)	Low	Poor	No Encroachment	No Encroachment/ No Encroachment	1.87
W7	Adjoining railway at Addenbrooke's Road	0.020	Ditches (Medium)	Low	Poor	No Encroachment	Major/ No Encroachment	0.07
W8	Near Addenbrooke's Road	0.153	Ditches (Medium)	Low	Poor	No Encroachment	Major/ No Encroachment	0.53
W22	Near Graham's Road	0.118	Ditches (Medium)	Low	Poor	No Encroachment	Minor/ No Encroachment	0.46

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Watercourse	Location	Length km (within the RLB)	River type (Distinctiveness)	Strategic significance	Condition	Extent of watercourse encroachment	Extent of riparian encroachment	Baseline WUs
W24	Near Francis Crick Avenue	0.099	Ditches (Medium)	Low	Poor	No Encroachment	Minor/ No Encroachment	0.30
W27	Alongside Nine Wells LNR	0.175	Ditches (Medium)	Low	Poor	No Encroachment	Major/ Major	0.61
W29	Near Francis Crick Avenue	0.024	Ditches (Medium)	Low	Poor	No Encroachment	Major/ No Encroachment	0.07
Totals		3.362						20.71

Post construction habitat creation

A.3.2 The post constriction habitat creation BNG score for area habitats, hedgerow habitats, and watercourses are provided in Tables A.5 to A.7.

Table A.4 On site area habitat creation

Broad habitat	Proposed habitat	Proposed area (ha)	Distinctiveness		Condition		Strategic significance		Habitat units delivered
			Band	Score	Band	Score	Band	Score	
Urban	Lowland calcareous grassland	0.20	High	6	Moderate	2	High	1.15	0
Cropland	Modified grassland	1.61	Low	2	Poor	1	Medium	1.10	56.23
Cropland	Other neutral grassland	16.09	Medium	4	Moderate	2	High	1.15	11.67
Cropland	Other neutral grassland	24.17	Medium	4	Moderate	2	Medium	1.10	13.14
Grassland	Mixed scrub	0.16	Medium	4	Moderate	2	Medium	1.10	0.64
Grassland	Ponds (Non- Priority Habitat)	1.87	Medium	4	Moderate	2	Medium	1.10	3.41
Woodland	Lowland mixed deciduous woodland	1.33	High	6	Moderate	2	High	1.15	123.87
Woodland	Other woodland; broadleaved	5.01	Medium	4	Moderate	2	Medium	1.10	178.00
Heathland and shrub	Arable field margins game bird mix	0.18	Medium	4	N/A	1	Medium	1.10	1.19
Lakes	Arable field margins pollen & nectar	2.03	Medium	4	N/A	1	Medium	1.10	14.77
Woodland and forest	Lowland calcareous grassland	0.20	High	6	Moderate	2	High	1.15	1.94
Woodland and forest	Modified grassland	1.61	Low	2	Poor	1	Medium	1.10	25.84
Cropland	Other neutral grassland	16.09	Medium	4	Moderate	2	High	1.15	0.76
Cropland	Other neutral grassland	24.17	Medium	4	Moderate	2	Medium	1.10	8.62

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Broad habitat	Proposed habitat	Proposed area (ha)	Distinctiveness		Condition		Strategic significance		Habitat units delivered
			Band	Score	Band	Score	Band	Score	
Total area (ha)		110.40	Total units						440.08

Table A.5 On site habitat hedgerow habitat creation

Broad habitat	Proposed habitat	Total length (km)	Distinctiveness		Condition		Strategic significance		Habitat units delivered
			Band	Score	Band	Score	Band	Multiplier	
Hedgerow	Native Species Rich Hedgerow	11.55	Medium	4	Moderate	2	High	1.15	82.81
Hedgerow	Native Species Rich Hedgerow with Trees	0.35	High	6	Moderate	2	High	1.15	3.15
Total		11.9	Total						85.96

Table A.6 On site watercourse habitat creation

Watercourse	Sub-reach	Baseline Length (within site boundary) (km)	Baseline Units	Length Lost (km)	Length Retained (km)	Length Enhanced (km)	Length Created (km)	Retained Units	Units Lost	Baseline Units Enhanced	Units Generated	Total Post-works Units
River Granta	D1-S1	0.202	1.39	0	0.202	0	0	1.39	0	0	0	1.39
	D1-S3	0.135	1.22	0.02 (at Moderate)	0.115	0	0.02 (at Fairly Poor)	1.04	0.18	0	0.04*	1.08
	D2-S1	0.373	6.31	0	0	0.373	0	0	0	6.31	6.86**	6.86
	D2-S2	0.132	1.68	0	0.017	0.115	0	0.22	0	1.46	1.59**	1.82
Hobson’s Brook	D4-S1	0.144	1.19	0.012 (at Fairly poor)	0	0.132	0.012 (at Poor)	0	0.10	1.09	1.28***	1.28
D2E		0.240	0.96	0	0.240	0	0	0.96	0	0	0	0.96
D5A		0.159	0.62	0	0.159	0	0	0.64	0	0	0	0.62
W2		0.153	0.61	0.047	0.106	0	0	0.42	0.19	0	0	0.42
W3		0.121	0.48	0	0.121	0	0	0.48	0	0	0	0.48
W4		0.174	0.70	0.031	0.143	0	0	0.57	0.12	0	0	0.57
W5		0.472	1.64	0.472	0	0	0.472	0	1.64	0	1.06	1.06
W6		0.468	1.87	0.030	0.438	0	0	1.75	0.12	0	0	1.75

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Watercourse	Sub-reach	Baseline Length (within site boundary) (km)	Baseline Units	Length Lost (km)	Length Retained (km)	Length Enhanced (km)	Length Created (km)	Retained Units	Units Lost	Baseline Units Enhanced	Units Generated	Total Post-works Units
W7		0.020	0.07	0	0.020	0	0	0.07	0	0	0	0.07
W8		0.153	0.53	0	0.153	0	0	0.53	0	0	0	0.53
W22		0.118	0.46	0	0.118	0	0	0.46	0	0	0	0.46
W24		0.099	0.30	0	0.099	0	0	0.30	0	0	0	0.30
W27		0.175	0.61	0	0.175	0	0	0.61	0	0	0	0.61
W29		0.024	0.07	0	0.024	0	0	0.07	0	0	0	0.07
Culverts		0	0	0	0	0	0.108	0	0	0	0.09	0.09
Travel hub ditches		0	0	0	0	0	0.170	0	0	0	0.71	0.71
River Granta (Stapleford) Crossing ditches		0	0	0	0	0	0.489	0	0	0	2.04	2.04
Total (Rivers/ streams)		3.362	20.71	0.58	2.13	0.62	1.239	9.51	2.35	8.86	3.9	23.17

Note: numbers shown as are they are displayed in the Statutory Metric

Note: Minor discrepancies in the addition and subtraction of WUs are a result of rounding to two decimal places.

* WUs generated through re-creation of Rivers/ streams to capture a reduction in condition associated with Scheme crossings, as per the guidance.

** WUs generated through enhancement of Rivers/ streams associated with enhancement to the riparian zone.

*** WUs generated through enhancement of Rivers/ streams, by recording a reduction in condition of Hobsons's Brook where there is a new viaduct crossing, and WUs delivered through enhancement of the riparian zone.

Trading rules

A.3.3 For September 2024, the metric shows that for habitats, hedgerows, and watercourses that the trading rules were met.

Summary

A.3.4 The assessment shows that the Scheme is predicted to result in a net gain of 140.46 units, with a predicted total net change of +50.29%.

A.3.5 The net change in hedgerow units is +75.05 which is a net gain of 97.81%. AHBU and HBU achieve and surpasses the 20% biodiversity net gain target for the Scheme.

A.3.6 The Scheme is also predicted to result in a net gain for watercourses, at 2.46 units which equates to a 9.89% net gain.

A.4 September 2026 update BNG assessment

A.4.1 Following amendments to the Scheme red line boundary in 2025/26, it was necessary to update the BNG to reflect how the reduction of the red line boundary has affected the BNG assessment.

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September 2026 update baseline BNG assessment

A.4.2 The baseline BNG score for habitats, hedgerows and watercourses are provided in Table A.7 to A.9. Since 2024, Cambridgeshire has released Cambridgeshire and Peterborough Local Nature Recovery Strategy[9]. As a result, the strategic significance has changed, namely, all baseline habitats have been inputted as 'low' in line with the BNG User Guide. Owing to the detail provided within the landscape design, the habitat creation has been recorded as low strategic significance; however, this is not considered to be a constraint as this would be an underestimate of biodiversity units, therefore the BNG recorded could only increase as the design develops.

Table A.7 September 2026 update baseline area habitat scores and unit values within the Site

Broad habitat	Proposed habitat	Baseline area (ha)	Distinctiveness		Condition		Strategic significance		Baseline units	Retained area (ha)	Retained units
			Band		Score		Band				
Urban	Vacant or derelict land	0.8209	Low	2	Poor	1	Low Strategic Significance	1	1.64	-	0.00
Cropland	Cereal crops	90.2426	Low	2	Condition Assessment N/A	1	Low Strategic Significance	1	180.49	1.62	3.24
Urban	Developed land; sealed surface	4.4811	V. Low	0	N/A - Other	0	Low Strategic Significance	1	0.00	1.723	0.00
Woodland and forest	Lowland mixed deciduous woodland	0.0631	High	6	Moderate	2	Low Strategic Significance	1	0.76	-	0.00
Woodland and forest	Lowland mixed deciduous woodland	0.9266	High	6	Poor	1	Low Strategic Significance	1	5.56	0.8391	5.03
Woodland and forest	Other woodland; broadleaved	1.1364	Medium	4	Moderate	2	Low Strategic Significance	1	9.09	0.164	1.31
Woodland and forest	Other woodland; broadleaved	0.3862	Medium	4	Poor	1	Low Strategic Significance	1	1.54	-	0.00
Lakes	Ponds (non-priority habitat)	0.0207	Medium	4	Poor	1	Low Strategic Significance	1	0.08	0.0146	0.06
Grassland	Other neutral grassland	0.5635	Medium	4	Good	3	Low Strategic Significance	1	6.76	0.0006	0.01
Grassland	Other neutral grassland	3.0519	Medium	4	Moderate	2	Low Strategic Significance	1	24.42	0.7431	5.94
Grassland	Other neutral grassland	2.6505	Medium	4	Poor	1	Low Strategic Significance	1	10.60	0.2039	0.82
Grassland	Modified grassland	0.9983	Low	2	Good	3	Low Strategic Significance	1	5.99	0.2784	1.67
Grassland	Modified grassland	2.2888	Low	2	Moderate	2	Low Strategic Significance	1	9.16	-	0.00
Grassland	Modified grassland	0.6409	Low	2	Poor	1	Low Strategic Significance	1	1.28	0.1721	0.34

[9] Local Nature Recovery Strategy (LNRS) - Cambridgeshire & Peterborough Combined Authority

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Broad habitat	Proposed habitat	Baseline area (ha)	Distinctiveness		Condition		Strategic significance		Baseline units	Retained area (ha)	Retained units
			Band		Score		Band				
Heathland and shrub	Bramble scrub	0.0257	Medium	4	Condition Assessment N/A	1	Low Strategic Significance	1	0.10	-	0.00
Heathland and shrub	Mixed scrub	0.2735	Medium	4	Moderate	2	Low Strategic Significance	1	2.19	0.0384	0.31
Heathland and shrub	Mixed scrub	0.0439	Medium	4	Poor	1	Low Strategic Significance	1	0.18	-	0.00
Urban	Artificial unvegetated, unsealed surface	0.5167	V. Low	0	N/A - Other	0	Low Strategic Significance	1	0.00	-	0.00
Individual trees	Urban tree	0.0814	Medium	4	Good	3	Low Strategic Significance	1	0.98	0.0814	0.98
Individual trees	Rural tree	0.2484	Medium	4	Moderate	2	Low Strategic Significance	1	1.99	0.2484	1.99
Totals		109.46 (109.13 incl. trees)	-						262.80	6.13	21.70

Table A.8 September 2026 update baseline linear hedgerow habitat scores and unit values within the Site

Proposed habitat	Baseline length (km)	Distinctiveness		Condition		Strategic significance		Baseline units	Retained length (ha)	Retained units
		Band	Score	Band	Score	Band	Score			
Line of trees	0.555	Low	2	Low	2	Low Strategic Significance	1	3.33	0.521	3.13
Line of trees	0.055	Low	2	Low	2	Low Strategic Significance	1	0.22	-	0.00
Native Hedgerow	1.541	Low	2	Low	2	Low Strategic Significance	1	9.25	1.136	6.82
Native Hedgerow	0.251	Low	2	Low	2	Low Strategic Significance	1	1.00	0.2	0.80
Native Hedgerow	0.011	Low	2	Low	2	Low Strategic Significance	1	0.02	0.011	0.02
Native hedgerow - associated with bank or ditch	0.662	Medium	4	Good	3	Low Strategic Significance	1	7.94	0.616	7.39
Native hedgerow - associated with bank or ditch	0.489	Medium	4	Moderate	2	Low Strategic Significance	1	3.91	0.34	2.72
Native hedgerow with trees	0.317	Medium	4	Good	3	Low Strategic Significance	1	3.80	0.282	3.38
Native hedgerow with trees	0.189	Medium	4	Moderate	2	Low Strategic Significance	1	1.51	0.152	1.22
Non-native and ornamental hedgerow	0.319	V. Low	1	Poor	1	Low Strategic Significance	1	0.02	0.018	0.02
Species-rich native hedgerow	1.306	Medium	4	Poor	1	Low Strategic Significance	1	0.30	0.301	0.30
Species-rich native hedgerow	0.084	Medium	4	Moderate	2	Low Strategic Significance	1	15.67	1.257	15.08

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Proposed habitat	Baseline length (km)	Distinctiveness		Condition		Strategic significance		Baseline units	Retained length (ha)	Retained units
		Band	Score	Band	Score	Band	Score			
Species-rich native hedgerow	0.802	Medium	4	Poor	1	Low Strategic Significance	1	0.67	-	0.00
Species-rich native hedgerow - associated with bank or ditch	0.13	High	6	Good	3	Low Strategic Significance	1	3.21	0.802	3.21
Species-rich native hedgerow with trees	0.438	High	6	Good	3	Low Strategic Significance	1	2.34	0.13	2.34
Total	7.15							61.09	6.06	51.65

Table A.9 September 2026 update baseline watercourse units

Watercourse	Location	Length km	River type (Distinctiveness)	Strategic significance	Condition	Extent of watercourse encroachment	Extent of riparian encroachment	Baseline WUs	Units retained
River Granta (D1-S1)	Adjoining A11 and RLB at southern limit of Scheme	0.202	Priority Habitat (Very High)	Low	Fairly Poor	Major	No Encroachment/ No Encroachment	1.21	1.21
River Granta (D1-S3)	Structure 8 crossing at Babraham	0.135	Priority Habitat (Very High)	Low	Moderate	Major	Minor/ No Encroachment	1.06	0.19
River Granta (D2-S2)	Structure 6 crossing at Stapleford	0.132	Priority Habitat (Very High)	Low	Fairly Poor	No Encroachment	Moderate/ No Encroachment	1.46	0.19
Hobson's Brook (D4-S1)	Structure 4 crossing near Addenbrooke's Road	0.144	Other Rivers and Streams (High)	Low	Fairly Poor	No Encroachment	Major/ Moderate	1.04	0.00
D2E	Tributary of the River Granta near Structure 6	0.240	Ditches (Medium)	Low	Poor	No Encroachment	No Encroachment/ No Encroachment	0.96	0.96
D5A	Near Graham's Road	0.159	Ditches (Medium)	Low	Poor	No Encroachment	Minor/ No Encroachment	0.62	0.62
W2	Crossed by Structures 1, 2 and 3 near Addenbrooke's Road	0.153	Ditches (Medium)	Low	Poor	No Encroachment	No Encroachment/ No Encroachment	0.61	0.42
W3	Near Stapleford	0.121	Ditches (Medium)	Low	Poor	No Encroachment	No Encroachment/ No Encroachment	0.48	0.48
W4	Crossed by Structure 7 at Sawston	0.174	Ditches (Medium)	Low	Poor	No Encroachment	No Encroachment/ No Encroachment	0.70	0.57
W5	Near Sawston	0.472	Ditches (Medium)	Low	Poor	No Encroachment	No Encroachment/ No Encroachment	1.64	0.00
W6	Crossed by Structure 5 at Stapleford, near River Granta	0.468	Ditches (Medium)	Low	Poor	No Encroachment	No Encroachment/ No Encroachment	1.87	1.75

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Watercourse	Location	Length km	River type (Distinctiveness)	Strategic significance	Condition	Extent of watercourse encroachment	Extent of riparian encroachment	Baseline WUs	Units retained
W7	Adjoining railway at Addenbrooke's Road	0.020	Ditches (Medium)	Low	Poor	No Encroachment	Major/ No Encroachment	0.07	0.07
W8	Near Addenbrooke's Road	0.153	Ditches (Medium)	Low	Poor	No Encroachment	Major/ No Encroachment	0.53	0.53
W22	Near Graham's Road	0.118	Ditches (Medium)	Low	Poor	No Encroachment	Minor/ No Encroachment	0.46	0.46
W24	Near Francis Crick Avenue	0.099	Ditches (Medium)	Low	Poor	No Encroachment	Minor/ No Encroachment	0.30	0.30
W27	Alongside Nine Wells LNR	0.175	Ditches (Medium)	Low	Poor	No Encroachment	Major/ Major	0.61	0.61
W29	Near Francis Crick Avenue	0.024	Ditches (Medium)	Low	Poor	No Encroachment	Major/ No Encroachment	0.07	0.07
Totals		2.989						13.94	9.16

September 2026 update post construction

A.4.3 The post constriction habitat creation BNG score for area habitats, hedgerow habitats, and watercourses are provided in Tables A.1 to A.12.

Table A.10 September 2026 update on Site area habitat creation

Broad habitat	Proposed habitat	Proposed area (ha)	Distinctiveness		Condition		Strategic significance		Habitat units delivered
			Band	Score	Band	Score	Band	Score	
Woodland and forest	Other woodland; broadleaved	4.2767	Medium	4	Moderate	2	Low Strategic Significance	1	18.67
Cropland	Cereal crops	41.3654	Low	2	Condition Assessment N/A	1	Low Strategic Significance	1	74.34
Grassland	Modified grassland	0.7129	Low	2	Poor	1	Low Strategic Significance	1	1.28
Grassland	Other neutral grassland	35.5286	Medium	4	Moderate	2	Low Strategic Significance	1	221.49
Lakes	Ponds (non-priority habitat)	0.3873	Medium	4	Moderate	2	Low Strategic Significance	1	2.59
Urban	Developed land; sealed surface	19.26	V. Low	0	N/A - Other	0	Low Strategic Significance	1	0.00
Grassland	Lowland calcareous grassland	0.2	High	6	Moderate	2	Low Strategic Significance	1	0.52
Individual trees	Rural tree	0.402	Medium	4	Moderate	2	Low Strategic Significance	1	1.14
Woodland and forest	Lowland mixed deciduous woodland	1.1	High	6	Moderate	2	Low Strategic Significance	1	1.39
Heathland and scrub	Mixed scrub	0.4	Medium	4	Moderate	2	Low Strategic Significance	1	2.49

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Broad habitat	Proposed habitat	Proposed area (ha)	Distinctiveness		Condition		Strategic significance		Habitat units delivered
			Band	Score	Band	Score	Band	Score	
Total area (ha)		103.73 103.33 (excl. Rural trees)	Total units						324.37

Table A.11 September 2026 update on Site hedgerow habitat creation

Broad habitat	Proposed habitat	Total length (km)	Distinctiveness		Condition		Strategic significance		Habitat units delivered
			Band	Score	Band	Score	Band	Multiplier	
Hedgerow	Native Species Rich Hedgerow	8.74	Medium	4	Moderate	2	Low	1	54.49
Hedgerow	Native Species Rich Hedgerow with Trees	0.36	High	6	Moderate	2	Low	1	2.82
Total		9.1	Total						57.3

Table A.12 September 2026 update on Site watercourse creation

Watercourse Type	Total length (km)	Distinctiveness		Condition		Strategic significance		Watercourse units delivered
		Band	Score	Band	Score	Band	Multiplier	
Watercourse	0.025	V. High	8	Fairly Poor	1.5	Low Strategic Significance	1	0.04
Culvert	0.047	Low	2	Poor	1	Low Strategic Significance	1	0.04
Culvert	0.031	Low	2	Poor	1	Low Strategic Significance	1	0.03
Ditches	0.472	Medium	4	Poor	1	Low Strategic Significance	1	0.92
Culvert	0.03	Low	2	Poor	1	Low Strategic Significance	1	0.03
Ditches	0.17	Medium	4	Moderate	2	Low Strategic Significance	1	0.71
Ditches	0.256	Medium	4	Moderate	2	Low Strategic Significance	1	1.07
Other rivers and streams	0.012	High	6	Poor	1	Low Strategic Significance	1	0.02
Total	1.04	Total						2.85

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Table 14 - September 2026 update on Site watercourse enhancement

Watercourse type	Total length (km)	Strategic significance score	Habitat units	Length	Watercourse units delivered
Watercourse	0.132	Low Strategic Significance	1.46	0.115	1.38
Other Rivers and Streams	0.144	Low Strategic Significance	1.03	0.132	1.09
Total			2.87	Total	2.47

Trading rules

A.4.4 For the September 2026 update, the metric shows that for habitats, hedgerows, and watercourses that the trading rules were met.

Summary

A.4.5 The assessment shows that the Scheme is predicted to result in:

- a net gain of 83.27 area habitat units, which is a net gain of +31.68%.
- a net gain of 47.86 hedgerow habitat units which is a net gain of +78.35%.
- a net gain of 0.54 watercourse units which equates to a net gain of +3.88%.

A.4.6 The net gain surpasses the statutory net gain target of 10% for both area habitats and hedgerow habitats; however, does not surpass 10% for watercourses.

Overall summary

A.4.7 The Statutory Metric has been applied to the Scheme at the Site, based on the design at the time of publication of this report. A summary of the change in the BNG is provided in Table A.13.

A.4.8 The September 2026 BNG update shows that, due to the reduction in the red line boundary, both the baseline units and post construction units for habitats, hedgerows and watercourses has reduced. However, as summarised in Table A.13, for habitats and hedgerows there is still a significant increase in BNG compared to the baseline which exceeds the statutory 10% net gain target for development for area habitats and hedgerows.

A.4.9 In respect of watercourses, the drop in BNG is significant due an area within the red line boundary where ditches were to be created being removed from the design. Whilst the change in watercourse BNG is below the minimum statutory 10% net gain target, it is still positive.

A.4.10 It should be noted that although watercourses is returning a BNG below the statutory target of 10%, BNG is not a statutory requirement for TWAO Schemes and, therefore, is not a legal requirement for this Scheme. As such, any positive net gain should be addressed in this context.

A.4.11 Further refinement of the Scheme will be undertaken as the design progresses. This will include exploring further opportunities to improve the watercourse BNG score within the Scheme red line boundary.

Table A.13 September 2024 to September 2026 BNG change

Feature	September 2024				September 2026			
	Baseline units	Post construction units	Net change	BNG	Baseline units	Post construction units	Net change	BNG
Habitats	279.29	419.75	140.46	50.29%	262.80	346.06	83.27	31.68%
Hedgerows	76.73	151.79	75.05	97.81%	61.09	108.95	47.86	78.35%
Watercourses	20.97	23.04	2.07	9.89%	13.94	14.48	0.54	3.88%

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3 Piccadilly Place
Manchester
M1 3BN

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