

Cambourne to Cambridge (C2C)

Environmental Statement – Non-technical summary (DRAFT)



Contents

1.1	C2C AND THE ENVIRONMENT	1
1.2	THE EIA	1
1.3	SCOPE OF THE ASSESSMENT	1
1.4	EVOLUTION OF C2C	2
1.5	REFINEMENT OF THE PREFERRED OPTION	3
1.6	MITIGATION STRATEGY	3
1.7	BUILDING C2C	4
1.8	THE ENVIRONMENT ALONG THE ROUTE	4
1.9	EFFECTS ON PEOPLE AND COMMUNITIES	8
1.10	HEALTH EFFECTS	9
1.11	EFFECTS ON THE NATURAL ENVIRONMENT	9
1.12	EFFECTS ON THE CULTURAL ENVIRONMENT	10
1.13	EFFECTS ON GLOBAL ISSUES AND RESOURCES	11
1.14	CUMULATIVE EFFECTS	12
1.15	BIODIVERSITY GAIN	12
1.16	TAKING THE SCHEME FORWARDS	12



1.1 C2C and the Environment

- 1.1.1. The Cambourne to Cambridge Scheme (C2C) is a proposed new public transport route linking Cambourne and Cambridge. It will include a dedicated busway serving communities in Cambourne and the proposed Bourn Airfield development, as well as in Hardwick, Coton and the West Cambridge campus. A new travel hub (a park and ride facility) will be provided at Scotland Farm where drivers can leave their cars and continue into the city by bus. A service and maintenance road, to be used as a path for active travel, particularly by cyclists and pedestrians, will run alongside the busway.
- 1.1.2. C2C is one of several transport interventions promoted by the Greater Cambridge Partnership (GCP) that aim to create more sustainable, accessible and reliable ways to travel in and around Cambridge.

Illustrative support:

- Photos: Cambourne, Cambridge, Busway
- Indicative map of the various GCP schemes
- Annotated route plan, acting as the project description, perhaps as 2 x A4s

1.2 The EIA

- 1.2.1. The assessment of the environmental impacts of the Scheme (part of a process called environmental impact assessment or EIA) has been undertaken in collaboration with a wider team of engineers and planners, as well as with GCP. Consultation with various organisations and the public has helped shape

proposals that avoid or minimise negative effects, where practicable, and that deliver environmental improvements.

- 1.2.2. The approach to the environmental assessment has followed the rules of the Transport and Works Act 1992 (TWA) and the Town and Country Planning (Environmental Impact Assessment) Regulations 2017. Cambridgeshire County Council (the Applicant), as lead local authority, is applying to the Secretary of State for an order under the TWA, and a Planning Direction under the Town and Country Planning Act 1990. If authorised, the order and deemed planning permission would provide the powers required for the construction, maintenance and operation of the C2C Scheme.
- 1.2.3. The environmental assessment has been instrumental also in shaping aspects of the alignment and design of C2C, as well as proposals for its construction and operation. Different strands of the assessment, each addressing specific environmental issues, have sought to identify and assess potential impacts and to evaluate their effects. As these have been determined, the assessment team has proposed measures to mitigate adverse effects and, working with the design team, to embed them into the Scheme proposals.

1.3 Scope of the assessment

- 1.3.1. A scoping exercise was completed as an early part of the EIA to focus attention and resource where it would be most needed. By considering the characteristics of the project and the likely environmental impacts it will cause, and through an appreciation of the affected environment, scoping identified which topics to include in the assessment, which topics to



prioritise and the relative importance of different aspects within each assessment topic.

- 1.3.2. WSP prepared a scoping report for C2C on behalf of GCP, which was submitted to the Transport Infrastructure Planning Unit of the Department for Transport in February 2022. In preparing their scoping opinion, the DfT sought input from a range of statutory consultees. The opinion was received by GCP on 28th March 2022 and, with the scoping report, is published on GCP’s website. Comments in the scoping opinion have informed how the environmental assessment has been undertaken.

Illustrative support:

- Photo of a bat surveyor

1.4 Evolution of C2C

- 1.4.1. Proposals to develop a bespoke public transport link between Cambourne and Cambridge, broadly following the A428 corridor, were first presented in the 2014 Transport Strategy for Cambridge and South Cambridgeshire. Public consultations in 2015 and 2016 presented options for a route between Maddingley Mulch roundabout into the City, and west from Maddingley Mulch. The consultation in 2015 presented initial options for routes both to the south and north of the existing A428/A1303 as well as on-line options.
- 1.4.2. Different route options were explored in subsequent consultation rounds in 2017/8 and 2019, including a bus lane on the A1303 and Maddingley Road, a fully offline option and various offline/online hybrids. The fully offline option was

favoured by GCP, though modified to allow for the section west of Maddingley Mulch to be routed alongside the old St Neots Road rather than using a new route through farmland. This option, with high quality cycling and walking facilities and a park and ride site near Maddingley Mulch roundabout, was considered to offer the best overall contribution to economic growth and the fastest bus journey time between Cambourne and Cambridge.

- 1.4.3. Transport modelling suggested that, with other public and active transport improvements in the city, the offline option would achieve 1.8 million busway users annually, compared with 1.1 million for the Maddingley Road options. The offline option was predicted to offer the quickest journey times from Cambourne to Cambridge, with the Maddingley Road options taking up to ten minutes longer. Later re-consideration of a Maddingley Road option confirmed that it would need to be off the main road to realise transport benefits, and that this would entail impacts to the trees and vegetation at the edge of Maddingley Wood and the American Cemetery or landtake from property on the south side of the road.
- 1.4.4. In parallel, options for a park and ride site were investigated. The Waterworks site by Maddingley Mulch had initially been favoured as it was considered to give the best balance between congestion-free access, high capture of users and lower operating costs. However, a site at Scotland Farm was also proposed during the 2015 consultation. These and several other locations were considered, including some closer to Cambourne, and various sites around Maddingley Mulch roundabout. The selection of the Scotland Farm site was based on an assessment of a range of factors, but given that it



performed comparably with the favoured Madingley Mulch option, the final decision was influenced by strong local support during the 2017/8 and 2019 consultations.

- 1.4.5. An outline business case was prepared in 2020, which confirmed the off-road segregated route as the preferred alignment option. The Scheme was then subject to an independent audit in early 2021 with the findings presented to GCP's Executive Board on 1 July 2021. The arguments for a number of alternative routes were examined in the audit, which challenged the key assumptions and considerations that led to the selection of the preferred route, and to the rejection of alternatives. The audit confirmed that processes for the business case development and for stakeholder engagement had both been sound, and that the project should proceed to the next stage.
- 1.4.6. WSP was appointed in July 2021 as the lead consultant to take this single preferred option through to a TWA Order application. There have been some alterations and refinements to the preferred scheme recommended to the Executive Board in order to address environmental issues raised by stakeholders. The design detail has been developed to confirm the precise requirements for acquiring and using land, as well as to support an assessment of the Scheme's likely significant effects.

Illustrative support:

- Composite map of the various route options (lines on a map) that have been considered. Half x A4

1.5 Refinement of the preferred option

- 1.5.1. With a preferred route and park and ride site agreed, further issues have emerged from ongoing dialogue with stakeholders. Some of these are listed here
 - The route through Hardwick was realigned along St Neots Road to avoid the tree screen between the road and the A428. A bus gate added initially to increase bus priority was later removed in the face of strong opposition and since it offered limited overall benefits.
 - The route was diverted around the Waterworks site near Madingley Mulch to avoid ecological and landscape impacts.
 - The route through the West Cambridge campus was taken onto Charles Babbage Road to avoid potential impacts on the operation of sensitive scientific equipment.
 - The alignment towards Grange Road was modified to minimise land take from the West Fields. The route design was modified to ensure protected and mature trees along Rifle Range would be retained.

1.6 Mitigation strategy

- 1.6.1. The mitigation of potential impacts and effects is a central tenet of successful EIA. For the C2C assessment, mitigation is deemed effective if it makes a potentially significant effect not significant. Mitigation is incorporated using measures that, in order of priority, avoid, minimise, rectify or compensate for potential impacts and effects.
- 1.6.2. Opportunities to avoid potential impacts tend to arise in the early stages of a project when alternative proposals are



developed, compared and evaluated. Through subsequent stages of the project lifecycle - from concept design and detailed design through to implementation - opportunities to avoid and minimise adverse effects become fewer, and the emphasis shifts to rectifying and compensating.

- 1.6.3. Mitigation has included changes in the alignment, such as those described above. Other examples include hedges to encourage elevated bat crossing of the busway, various planted screens, and a design for the bridge over Bin Brook that lessens flood risk.

Illustrative support:

- Picture of a mitigating feature, TBC

1.7 Building C2C

- 1.7.1. The way that C2C will be constructed has been developed in sufficient detail to allow the environmental assessment to determine any significant temporary effects that are likely to result from landtake, introduction of plant and temporary features, construction activity and potential emissions to air and water. Information considers general working practices, including use of construction worksites and access to and from the works, and access requirements on the wider road network for bringing people and materials to and from worksites.
- 1.7.2. Construction work can be one of the chief causes of environmental impact. To minimise this risk, a Code of Construction Practice (CoCP) has been developed, setting out a range of measures and principles that contractors will be required to abide by.

- 1.7.3. Should the TWA Order be granted, GCP will appoint a principal contractor who will then work up a detailed design, construction strategy and programme within the consented parameters. This will include a construction management plan to reflect the contractor's more detailed design, workplan and assumptions, and which will use the CoCP as the framework for more detailed control measures to be agreed with the council.
- 1.7.4. Construction will be undertaken from 16 worksites, including one main compound at Scotland Farm Travel Hub, five secondary compounds and ten local works compounds to support construction of particular elements. Construction will take place between 8am and 6pm Monday to Friday, and 8am and 1pm on Saturday, with no working on Sundays or bank holidays.

1.8 The environment along the route

Communities and homes

- 1.8.1. The route passes through or by five settlements, as well as a proposed new one at Bourn Airfield, as well as several solitary or small groups of dwellings.
- 1.8.2. Cambourne comprises three villages, including Lower Cambourne which was completed in 2003. The eastern-most Upper Cambourne was largely built out by 2017. The recently approved planning application for a development west of Lower Cambourne will add a fourth village with a further 2,350 homes.
- 1.8.3. Bourn airfield is a proposed mixed-use development village on a site at Bourn airfield, 8km west of Cambridge, outline



planning permission was applied for in 2018, though is yet to be determined. The development is set to deliver 3,500 homes. Runway Park will form part of almost 100 hectares of open space incorporated into the development.

- 1.8.4. Hardwick is a village about 10km west of Cambridge with a population of some 3,000 people. It has expanded greatly since the 1960s. Coton is a small village about 5km west of Cambridge with a population of about 800 people. Both villages have various shops and community facilities.
- 1.8.5. West Cambridge is a science and research park just east of the M11 that is an important part of the University's estate and a key to its continued growth. Development at West Cambridge has been on-going since the 1960s and has a development framework that sets the context for major expansion.
- 1.8.6. A residential area, Newnham, is situated at the western edge of the city that broadly extends west from the A1134, south from the A1303 to just beyond the M11. The area includes several sports pitches and an athletics track, all associated with the university.

Illustrative support:

- Various photos of said villages, TBC

Environmental quality

- 1.8.7. Road traffic is a strong determinant of local environmental quality. Noise levels along the route vary, though road traffic noise is prevalent along much of it, especially from the A428

between Bourn and Madingley Mulch, and from the M11 on the east side of Coton and from West Cambridge.

- 1.8.8. At a more detailed level, noise levels at locations such as homes or schools are characterised by specific noise sources, as well as by local screening from landform or other buildings, though not by vegetation, which has relatively little effect in reducing noise levels.
- 1.8.9. Road traffic is also the main determinant of local air quality. High traffic levels and frequent congestion in Cambridge have led to much of the City's designation as an air quality management area (AQMA) by the city council due to exceedance levels of certain pollutants. The Cambridge AQMA extends west to where C2C terminates, at Grange Road.
- 1.8.10. However, available monitoring data shows air quality within 2km of the Scheme to be generally good, and it is expected that air quality along much of the C2C route away from major roads will also be good. Various residential areas will be sensitive to changes in air quality, as will certain sensitive habitats, including Madingley Wood SSSI, approximately 260m north of the Scheme.

Soils, geology and landscape

- 1.8.11. C2C runs across a landscape of mostly lowland farmland. The Great Cambridge Landscape Character Assessment describes landscape generally in the area as being "gently undulating, intensively farmed arable landscape encompassing densely settled, wide, flat river valleys and their tributaries".



- 1.8.12. The rich farmland and remnant ancient woodlands are very much a product of the area’s geology. Geological bands follow a generally south-west to north-east alignment, reflecting the southwards migration of the glaciers about 400,000 years ago. The bedrock geology is substantially clay with remnants of chalk poking through this where erosion and weathering has exposed it, particularly to the south-west of Cambridge. Overlying clay rich glacial deposits are relatively resistant and form higher ground on the Western Plateau that rises gradually west of Toft and Hardwick as far as St Neots. Springs form occasionally where water is forced up over impermeable clay.
- 1.8.13. Soils in the area have developed since the ice sheet retreated and are predominantly chalky tills, giving them a slowly permeable, calcareous clayey nature. Natural fertility is high and land is commonly used for the production of winter cereals. Agricultural soil maps record much of the land crossed by the Scheme as being of good quality.

Illustrative support:

- Photo of landscape around Coton, and other representative images

Water environment

- 1.8.14. Passing eastwards, the route follows the low, flat ridge of the western plateau, with streams and field drains flowing north and south from this. Around Cambourne the Scheme lies within the catchment of the Great Ouse but enters the catchment of the River Cam eastwards from Bourn airfield.

- 1.8.15. Callow Brook runs northwards through Hardwick and is culverted below the St Neots Road and A428. It flows near to the eastern edge of the proposed travel hub continuing northwards to become the Old West river at Dry Drayton. Bin Brook flows from the plateau south-eastwards passing through Coton south of the Scheme and then finally bearing north at Newnham where its course and the route alignment intersect west of Grange Road. Various other drainage ditches along field edges are crossed by the Scheme.
- 1.8.16. The route is largely routed over low permeability formations with limited groundwater potential. Two principal aquifers underlie Bourn Airfield and the route between Madingley Mulch and Coton Orchard. There are no groundwater abstraction points affected by the Scheme.
- 1.8.17. Most of the C2C Scheme crosses land of very low flood risk. There is a small area of high flood risk where the route crosses the Bin Brook, which is known to flood quite regularly.
- 1.8.18. There are pockets of land at high flood risk from surface water flooding, typically from natural overland flow paths and local depressions in topography where surface water runoff can accumulate during or following heavy rain.

Illustrative support:

- Photo of Bin Brook



Nature

- 1.8.19. The habitats and wildlife that occur along the C2C Scheme have been characterised by desk research and a programme of almost 250 surveys undertaken over the preceding years and months. As well as habitat surveys, that have classified the land according to different habitat types, there have been surveys for bats, birds, reptiles, aquatic fauna, and invertebrates. There have also been surveys of species, including badgers, otters, great crested newts, water voles, white clawed crayfish, barn owls and great crested newts. The surveys have focused on the areas where the species or groups are likely to be found. Survey scopes have been agreed by both the county and city ecologists, and the bat survey strategy has been endorsed by Natural England.
- 1.8.20. Badger and water vole have been identified within the survey areas, as well as a range of wintering and breeding bird species associated with the habitat types present with the local area. No great crested newts have been recorded within any of the water bodies surveyed.
- 1.8.21. Most of the open land crossed by the Scheme is arable farmland, including the footprint of the travel hub. This is generally of little importance for wildlife. Coton Orchard, the scrubland and young woods on the east side of the M11 (designated a city wildlife site), and Bin Brook (also a city wildlife site) are locations of greater importance and interest. The 100-year-old Coton Orchard is of local importance for insects and other invertebrates, as well as providing a refuge for a range of animals and birds.

- 1.8.22. There are also several hedgerows crossed by the Scheme that are in various conditions. The Coton path hedgerow crossed the Scheme is designated a county wildlife site.
- 1.8.23. Madingley Wood is a SSSI north of the A1303 Madingley Road, approximately 260m north and uphill of the Scheme. The importance of this and similar more distant habitats for bats, including the rare barbastelle bat, is recognised, and an extensive programme of bat surveys has been a feature of the ecological assessment. A special assessment of potential impacts on barbastelles has been undertaken, using radio tracking assessments to allow more precise information on their movements.

Illustrative support:

- Photo of a barbastelle
- Photo of Coton orchard

Heritage

- 1.8.24. Information about the history of the area and its potential to yield archaeological remains, as well as about surface structures and landscapes of heritage interest, has been developed through extensive documentary research, including findings from 16 previous archaeological investigations completed within the vicinity of the C2C route, notably at the eastern and western ends. Research has used aerial photographs, ground level data from laser imaging (LiDAR) and geophysical survey, as well archaeological fieldwork such as trial trenching, targeted archaeological excavation and archaeological watching briefs.



- 1.8.25. There is little evidence for activity before the Iron Age, though the Iron Age landscape itself would have been dotted with small-ditched farmsteads and associated field systems.
- 1.8.26. Remains of Roman settlement are likely, with previous investigations having identified Romano-British field systems and settlements at both the western and eastern ends of the Scheme. A substantial Roman settlement has been identified within the site either side of Long Road, and this is likely to extend beyond the areas that were investigated.
- 1.8.27. At the eastern end of the site, at the edge of modern Cambridge, an early medieval site used for funerals and other activity, was identified 70m south-east of the Scheme, and may extend up to and across the Scheme. Otherwise, little is expected from this period of settlement.
- 1.8.28. In contrast, later medieval and post-medieval remains are more likely to be found. There is extensive evidence of former ridge and furrow field systems and former field boundaries, ditches and trackways.
- 1.8.29. Evidence of the former 19th century university rifle range may be present at the eastern end of the site. There is also a high likelihood of buried remains of the former World War II Bourn airfield to have survived.
- 1.8.30. With respect to historic surface features and structures, as well as general heritage designations, the site contains no nationally protected assets, such as scheduled monuments, listed buildings or registered parks and gardens. The far eastern end of the Scheme extends into the West Cambridge conservation area. This includes within the study area, one Grade II* listed building (Clare Hall 25m north of the Scheme)

and 11 Grade II listed buildings, the closest of which is 48 Grange Road 20m to the east. The site lies along part of the northern boundary of the Coton conservation area. Twenty-two other listed structures lie within 250m of the Scheme, including one Grade I and two Grade II* listed buildings.

- 1.8.31. The American Military Cemetery at Madingley is a Grade I Registered Park and Garden that extends to within 240m north of the site boundary, and includes a Grade II* listed memorial.

Illustrative support:

- Photo of some representative features, TBC

1.9 Effects on people and communities

- 1.9.1. C2C will offer significant benefits to people through the transport opportunities it brings. As well as supporting the delivery of new housing and employment, it will introduce new and quicker journeys for people in Cambourne, Hardwick and Coton, and for new residents at Bourn Airfield. The Travel Hub off the A428 will allow people living west of Cambridge but away from the main C2C route who might now commute to and from Cambridge by car, to access alternative and direct bus services or to use cycle facilities. And the footpath and cycleway that uses the service road alongside the busway will widen opportunities for travelling by foot and bike, with associated health benefits.
- 1.9.2. The Scheme will greatly increase the attractiveness for building new houses, particularly at Bourn Airfield, as well as at Cambourne West, and this will in turn help local businesses and other employees attract their workforce.



- 1.9.3. There have been well voiced concerns about adverse changes that C2C could bring for certain communities. The route generally avoids more sensitive environments or it uses existing roads, and this will help to limit impacts from noise or visual impact. It diverges from the highway east of Hardwick and passes south across open countryside towards and past the built part of Coton. The landscaping that will be introduced with the Scheme will greatly help to soften and mitigate impacts on views here.
- 1.9.4. Some people living in Coton will have views of the busway, but existing vegetation provides an effective screen for many, and the landform will also be effective in screening much of the route, especially from the north. As planting matures, impacts will lessen.
- 1.9.5. Some residents on Whitwell Way and along Cambridge Road will be adversely affected by views of the Scheme, especially during construction. Users of the footpath to Madingley will be similarly affected, although these impacts will reduce for most as planting matures.
- 1.9.6. Further west, people living on Scotland Road, and those using the footpath along Callow Brook will have close views of the travel hub and of the construction site that precedes it. Screen planting will be important in reducing these impacts with time.
- 1.9.7. At the time of preparing this draft NTS, operational noise impacts were still being modelled. However, based on the frequency of service and use of mostly electric buses, significant adverse effects from the busway are unlikely.
- 1.9.8. Overall, air quality is likely to improve marginally along numerous roads in and around Cambridge as traffic volumes

reduce. Small increases in pollution on certain roads will be of a very low order and air quality will not breach nationally set objectives at any location.

1.10 Health effects

- 1.10.1. There are clear health benefits from C2C, including better connectivity and easier access with health facilities in Cambridge, such as Addenbrookes and Papworth hospitals; facilitated active travel through provision of cycling and walking along the length of the Scheme; and by improved air quality in most parts of the study area.
- 1.10.2. There are several adverse effects predicted temporarily during construction, including noise and vibration impacts and reductions in visual amenity. Noise and vibration effects are presented as a worse case: the respective 279 and 95 properties predicted as likely to be significantly affected are expected to lessen as the construction programme is elaborated and refined. While detrimental to amenity temporarily, none of these effects is expected to significantly and adversely affect health.

1.11 Effects on the natural environment

- 1.11.1. The Scheme crosses two watercourses, Bin Brook and Callow Brook. Neither watercourse will be significantly adversely affected and best practice will be followed to ensure the streams are protected from pollution and other impacts during construction.
- 1.11.2. The ecological assessment has been important in shaping the design of the Scheme and the mitigation that will be included with it. The GCP is committed to developing new habitat as



part of the Scheme that will result in an overall gain in biodiversity of at least 20%. Proposals for these have not been yet agreed and will require some close working and agreement with local landowners, but areas for potential habitat creation have been identified near to the route.

- 1.11.3. The area of greatest ecological value is Coton Orchard. This 100-year-old orchard will be crossed by the Scheme. Most of its apple trees are of more recent origin, though 11 original trees remain. All but one will be retained.
- 1.11.4. The orchard is locally valued for its habitats and the different animals these support. The large majority of the orchard will remain, with an estimated 490 trees to be felled. The Scheme will include fencing to minimise risk of collisions, as well as underpasses to allow badgers and other wildlife to cross safely. The orchard supports a notable range of insects, including some nationally rare species. The remaining part of the orchard will continue to support these, and new habitat along the route and in adjacent areas will also provide an important continued habitat for insects and other wildlife.
- 1.11.5. The loss of a little under half a hectare of traditional orchard habitat is predicted to be a likely significant effect, as is the loss at various locations across the Scheme of hedgerows (around 1.3km) and mixed deciduous woodland (a little under two hectares). Much of its importance to wildlife will be offset as compensation habitats develop. New hedgerows will mitigate for those lost. The loss of woodland and traditional orchard cannot be mitigated directly and while compensatory habitat will mitigate the effects eventually, it will take 15-30 years to do so.

- 1.11.6. Potential impacts on bats have been the focus of much of the assessment work, not least due to the ancient woods in the wider area that provide roosts for them, including the rare barbastelle bat. Although the Scheme affects no bat roosts, and the habitat it displaces will be more than replaced, there are certain commuting routes that bats use when travelling between roosts and feeding areas. Surveys have identified where these routes are and, as a result, the Scheme includes specific tree planting and mounding to ensure that bats can cross the busway with little risk of collision. The service will, in any case, mostly operate during the daytime.

1.12 Effects on the cultural environment

- 1.12.1. Cultural resources include structures and archaeology that are of importance to local or national heritage. They also include the landscape.
- 1.12.2. Much of the Scheme's alignment will affect areas of relatively lower landscape sensitivity, such as around Bourn Airfield, or will result in relatively small change, such as past Hardwick. However, turning southwards towards Coton, the Scheme crosses land of higher visual, historical and cultural significance whose character is fundamental to preserving the setting and special character of Cambridge.
- 1.12.3. There would be some noticeable change to existing landscape elements and landscape character; however the landscape mitigation proposals will be fundamental to the Scheme's integration in the landscape, including the introduction of new earth bunds and planting alongside the busway.



- 1.12.4. The C2C Scheme will alter the character of the rolling open farmland near Coton, though maturing planting will be critical in helping to tie the Scheme into the landscape as it matures. The Scheme and buses will be visible from the important viewpoint at Red Meadow Hill but, at some 2km distance of the route, northward views from this location will be not greatly affected.
- 1.12.5. In terms of heritage, the Scheme will have no physical impact on any designated features, such as listed buildings or scheduled monuments. It passes close to a conservation area in Coton and through the edge of another at West Cambridge, though impacts on the character of these areas will be minor. Equally, although passing several listed buildings, the infrastructure of the busway will not be prominent and will have no more than a minor effect on the character of buildings such as the Schlumberger Gould Research Centre on the West Cambridge science park, and Clare Hall college off Grange Road. There will be no views from Madingley Military Cemetery.
- 1.12.6. Seventeen previous archaeological investigations, as well as those commissioned for C2C, have given a good understanding of the extent of past human activity along the route, but with many potential remains hidden from view, it cannot be known with certainty what the impacts of the Scheme will be.
- 1.12.7. For this reason, it is necessary to ensure that archaeological investigations continue, and that further investigation precedes any ground disturbance. This will allow good records to be kept for any features that are found, and for works to be revised if any features of national importance are unearthed.

Impacts on archaeological remains have the potential to give rise to a likely significant effect.

1.13 Effects on global issues and resources

- 1.13.1. Global issues and resources include climate change, land, building materials and waste capacity.
- 1.13.2. Much of the land affected by the Scheme is agricultural and of high quality. Some 60 hectares of this will be lost as a result of C2C and, despite the extensive resource in the area, this loss will be a significant effect.
- 1.13.3. The Scheme will affect no mineral resources. The potential for impacts on contaminated land is limited, though more notable at Bourn Airfield. Risks from this would be addressed during the regeneration of this site, following all legal requirements to protect people and the environment. More generally, good practice, in line with the CoCP, will ensure that the risks of effects from contamination on human health and controlled waters during the construction and operation of C2C will be negligible.
- 1.13.4. The balance of carbon emissions will reflect both those that result from the construction and operation of C2C (infrastructure emissions) and the savings that will arise as people move from more carbon polluting forms of travel (road vehicle) to less polluting (public transport, foot and cycle). The infrastructure carbon is predicted to be an equivalent of around 49,000 tonnes of CO₂. The carbon savings from the reduction of over 70 million kilometres of vehicle journeys over an assessed 60-year period are predicted to be an equivalent of around 3,250 tonnes of CO₂. These carbon savings are



expected to be higher when combined with further shifts to cycling and walking, and further still when taking into account the other improvements that are planned alongside C2C as part of the City Access Plan.

- 1.13.5. The CoCP will impose requirements for using building materials and generating waste in accordance with principles of sustainable development. This means maximising the reuse of excavated soil within new earthworks and ensuring that waste management accords with best practice. There is an assumed need to export some waste to landfill, although the contractor assigned to design and build the Scheme will be incentivised to minimise this.

1.14 Cumulative effects

- 1.14.1. The environmental assessment has also considered how effects from C2C might be experienced along with those of other related nearby (within 2km) schemes. Potential developments whose impacts might intensify, broaden or prolong those of C2C were identified and the assessment teams considered, based on available information, whether significant cumulative effects would be likely.
- 1.14.2. The main potential for significant cumulative effects will be at Bourn Airfield where significant cumulative noise, air quality, visual, ecology and transit/access issues are predicted during construction, with ecology and transit/access effects extending into the long term.

1.15 Biodiversity gain

- 1.15.1. As stated earlier, the C2C Scheme is aiming to achieve a 20% gain in biodiversity. Opportunities to increase biodiversity

along the C2C Scheme are currently being explored. These include increasing hedgerow and woodland connectivity through additional planting to link existing or proposed open spaces, hedgerows and other ecological corridors. Any swales included within the drainage strategy provide the opportunity for planting or sowing with wetland species. This will also help manage run off rates and limit flooding risk.

1.16 Taking the Scheme forwards

- 1.16.1. The GCP (through Cambridgeshire County Council as lead local authority) is making an application for an order under the Transport and Works Act 1992 and planning permission over land required for the Scheme.
- 1.16.2. If there is opposition to the application, the Secretary of State will decide whether to hold a public inquiry, with an inspector appointed to oversee this. A public inquiry allows everyone involved to present their cases, and to test the arguments of others. An inspector will normally allow anyone to speak who has something relevant to say.
- 1.16.3. The public inquiry would consider both the TWA order application and the request for planning permission. The inspector would hear evidence about the planning merits of the Scheme and about any conditions that should be set. Their report would include conclusions and recommendations on whether or not planning permission should be given, and on what conditions should be set if permission is given.
- 1.16.4. The Secretary of State should be in a position to consider what decision to take on the TWA order application and request for a planning permission following receipt of the inspector's post-



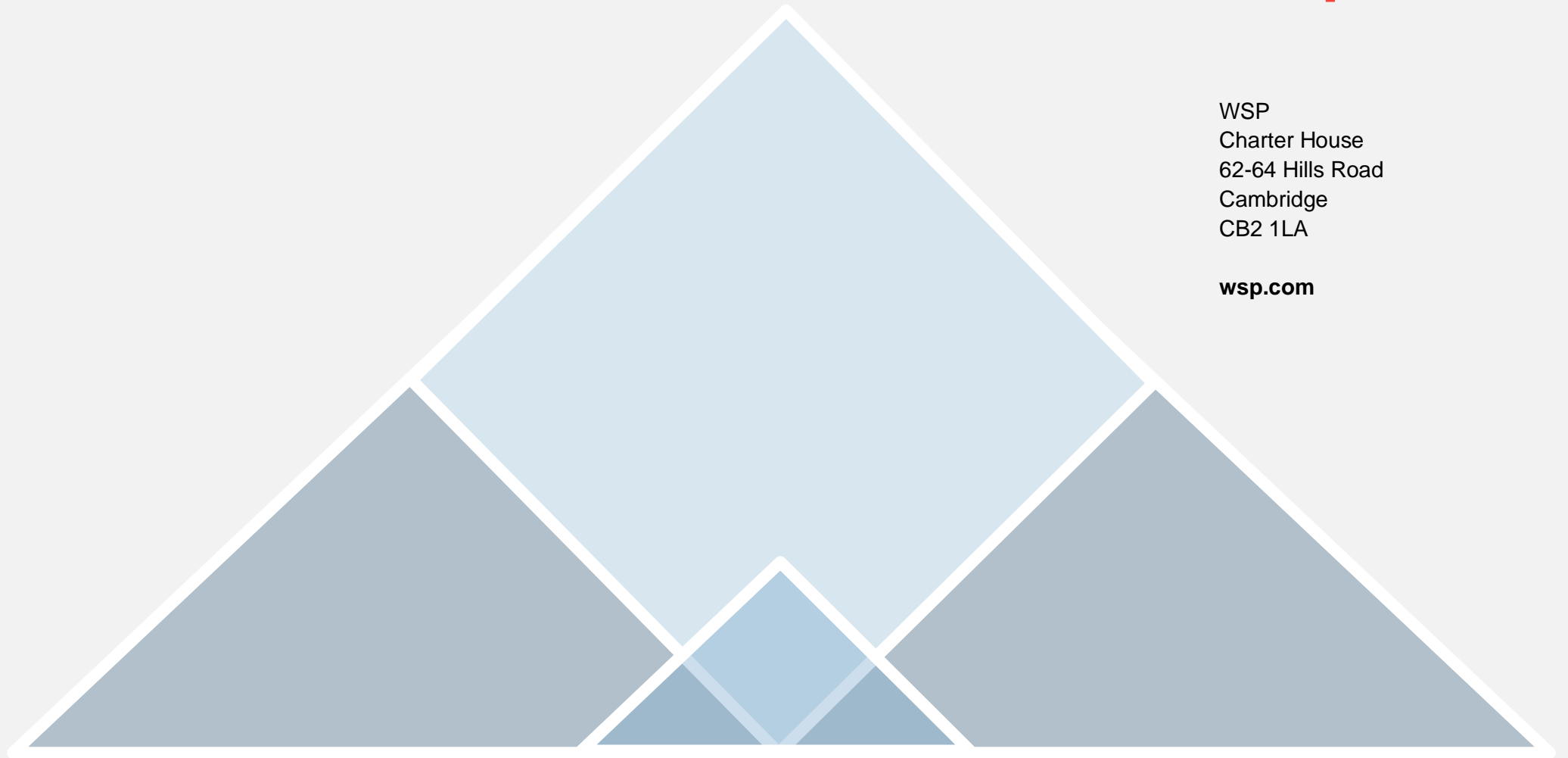
inquiry report. The TWA order usually comes into force three weeks after it is made.





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