

HIGH SPEED RAIL (LONDON - WEST MIDLANDS)

Supplementary Environmental Statement and Additional Provision 2 Environmental Statement

Volume 2 | Community forum area report
CFA17 | Offchurch and Cubbington

July 2015

SES and AP2 ES 3.2.1.17



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Department for Transport

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AECOM

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**PARSONS
BRINCKERHOFF**



High Speed Two (HS2) Limited,
One Canada Square,
London
E14 5AB

Details of how to obtain further copies are available from HS2 Ltd.

Telephone: 020 7944 4908

General email enquiries: HS2enquiries@hs2.org.uk

Website: www.gov.uk/hs2

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Structure of the HS2 Supplementary Environmental Statement and Additional Provision 2 Environmental Statement

The Supplementary Environmental Statement (SES) and Additional Provision 2 Environmental Statement (AP2 ES) comprises:

- non-technical summary (NTS). This provides a summary in non-technical language of the SES (Part 1) and AP2 ES (Part 2) and of any likely significant environmental effects, both beneficial and adverse, which are new or different to those reported in the High Speed Two (HS2) Phase One Environmental Statement (ES) submitted to Parliament in November 2013 in support of the hybrid Bill ('the Bill') for Phase One of HS2 (hereafter referred to as 'the main ES') and, where relevant, the AP ES submitted in September 2014 (hereafter referred to as 'the AP1 ES');
- Volume 1: introduction to the SES and the AP2 ES. This introduces the supplementary environmental information and design changes included within the SES and amendments which have resulted in the need to amend the Bill within the AP2 ES. It also explains any changes to the scope, methodology, assumptions and limitations required for the environmental impact assessment;
- Volume 2: community forum area (CFA) reports and map books. These describe the supplementary environmental information and design changes included within the SES (Part 1), amendments within the AP2 ES (Part 2) and report any new or different likely significant environmental effects arising from these changes in each CFA compared to those reported in the main ES and, where relevant, the AP1 ES. The main local alternatives that have been considered are described, where relevant;
- Volume 3: route-wide effects. This reports new or different likely significant route-wide effects arising from the supplementary environmental information and design changes included within the SES (Part 1) and amendments within the AP2 ES (Part 2) compared to those reported in the main ES and, where relevant, the AP1 ES;
- Volume 4: off-route effects. This reports new or different likely significant off-route effects arising from the amendments within the AP2 ES compared to those reported in the main ES and, where relevant, the AP1 ES;
- Volume 5: appendices and map books. This contains supporting environmental information and associated maps; and

- glossary of terms and list of abbreviations. This contains any new or different terms and abbreviations used throughout the SES and AP2 ES compared to those included in the main ES and AP1 ES.

Structure of this report

This volume of the SES and AP2 ES is divided into CFA reports, which are in turn divided into two parts.

Part 1 provides supplementary environmental information relating to:

- new baseline information with respect to European Protected Species surveys additional cultural heritage and ecology data related to ancient woodlands, and geophysical surveys for cultural heritage.

Part 1 of each CFA report includes, where relevant:

- a description of the changes or updates within the CFA that have triggered the need for reassessment;
- an assessment of the environmental effects of the changes for relevant environmental topics considering the:
 - scope, assumptions and limitations of the SES assessment;
 - changes of relevance to the assessment;
 - environmental baseline;
 - effects arising during construction;
 - effects arising from operation; and
 - mitigation and residual effects; and
- a summary of any new or different likely residual significant effects as a result of the changes.

Part 2 provides environmental assessment information relating to proposed amendments to the design, which have resulted in the need to alter the powers conferred by the Bill. The following is included where relevant:

- a summary of the proposed amendments within each CFA that have triggered the need for reassessment;
- a description of each amendment;
- an assessment of the environmental effects of each amendment for relevant environmental topics considering the:
 - scope, assumptions and limitations of the AP2 ES assessment;
 - environmental baseline;
 - effects arising during construction;
 - effects arising from operation; and
 - mitigation and residual effects; and

- a summary of any new or different likely residual significant effects as a result of each proposed amendment.

Introduction

- 1.1.1 The Bill for High Speed Rail between London and the West Midlands was submitted to Parliament together with the main ES in November 2013. The AP1 ES, which was submitted in September 2014, contained generally minor amendments to the design of the original scheme (i.e. the scheme submitted in November 2013). The Bill and associated Additional Provisions to the Bill, if enacted by Parliament, will provide the powers to construct, operate and maintain Phase One of HS2.
- 1.1.2 Since the submission of the main ES and AP1 ES, a number of changes or updates to environmental information and scheme design or assumptions have occurred, which may lead to new or different significant effects. These effects, depending on the type of change, are reported in the SES (Part 1) or AP2 ES (Part 2) of this document.
- 1.1.3 The SES contains updated environmental baseline information which is described in Part 1 under a series of sub-headings and assessed on a topic by topic basis using the same approach adopted as in the main ES.
- 1.1.4 The purpose of the SES is to provide an assessment of any new or different likely significant environmental effects arising from the new baseline information described.
- 1.1.5 The AP2 ES reports the likely significant effects of amendments to the design of the scheme, which require the use of land outside the original limits of the Bill, additional access rights, or other extensions to the powers conferred by the Bill, making it necessary to submit an Additional Provision to the Bill.
- 1.1.6 The amendments assessed within the AP2 ES include:
- roads and Public Rights of Way (PRoW): a change to the permanent realignment of a cycleway; and
 - a change to drainage infrastructure.
- 1.1.7 The AP2 ES assesses each amendment separately for all relevant topics. The purpose of the AP2 ES is to provide an assessment of any new or different likely residual significant environmental effects arising from the amendments.
- 1.1.8 The standard measures that will be used to mitigate likely significant adverse environmental effects during construction and operation of the scheme are described in the main ES, Volume 1, Section 9 and the draft Code of Construction Practice (CoCP) submitted in support of the Bill. Implementation of these measures has been assumed in this SES and AP2 ES.
- 1.1.9 It should be noted that, since submission of the Bill, the scheme design has been revised by SES design changes, amendments described in the AP1 ES (AP1 amendments) and amendments described in the AP2 ES (AP2 amendments).
- 1.1.10 In order to differentiate between the original proposals and subsequent changes, the following terms are used:
- 'the original scheme' - the Bill scheme submitted to Parliament in November 2013, which was assessed in the main ES;

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- 'the AP1 revised scheme' - the original scheme as amended by the AP submitted in September 2014;
- 'the SES scheme' - the original scheme with the design changes described in the SES; and
- 'the AP2 revised scheme' - the original scheme as amended by the SES scheme and AP2.

Part 1: Supplementary Environmental Statement

2 Summary of changes

2.1 New environmental baseline information

Cultural heritage

- 2.1.1 Geophysical surveys have been undertaken in this CFA since submission of the main ES. In addition, a further review of historic mapping and other available historic data sources has been carried out to verify the status of a number of sites in the vicinity of the route, which the Woodland Trust believe to be ancient woodland, that are not currently listed on the ancient woodland inventory.
- 2.1.2 Details of survey and desk-study undertaken in this CFA since production of the main ES (September 2013) are provided in Volume 5: SES and AP2 ES Appendix CH-004-017 and Volume 5 map series CH07, CH-09 and CH-10, where this is relevant to the assessment of new or different significant effects.
- 2.1.3 A summary of the supplementary cultural heritage information from these sources that is relevant to the SES assessment is provided in Section 3 under 'Cultural heritage'.

Ecology

- 2.1.4 Surveys for bats, great crested newt, hazel dormouse and otter have been undertaken in this area since September 2013. Habitat survey has been undertaken at selected woodland locations to assist in determining if these areas represent ancient woodland. In addition, new information is available from a review of historic documents in relation to Burnt Firs woodland which is being considered for inclusion on the ancient woodland inventory.
- 2.1.5 Details of all survey work and desk-study information gathered since September 2013 which is relevant to this area is provided in Volume 5: SES and AP2 Appendix EC-001-017 and Volume 5 Map Series EC-04; EC-05; EC-11 and EC-12.
- 2.1.6 A summary of the supplementary ecological information that is relevant to the SES assessment is included within Section 3 under 'Ecology'. This includes details of all changes relating to the status of ancient woodland.
- 2.1.7 Volume 5: SES and AP2 ES Appendix EC-002-017 provides a summary of additional baseline survey data collected since September 2013, which has resulted in no change to the conclusions of the main ES. Volume 5: SES and AP2 ES Appendix EC-003-017 identifies additional local/parish level effects which occur as a consequence of SES changes but are not significant.

2.2 Topics included in the SES assessment

- 2.2.1 The changes described in Section 2.1 result in new or different significant effects in respect of: cultural heritage; and ecology. These are described in Section 3.

3 Assessment of changes

3.1 Cultural heritage

Introduction

- 3.1.1 This section of the report describes the environmental baseline in relation to cultural heritage that is relevant to the assessment. It then identifies any new or different likely significant environmental effects as a result of the changes introduced in Section 2, compared to the original scheme. Consideration is given to effects upon the value of heritage assets.

Scope, assumptions and limitations

- 3.1.2 The assessment scope, key assumptions and limitations for cultural heritage are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001 -000) and the SMR Addendum (Volume 5: Appendix CT-001-000) of the main ES.

Changes of relevance to this assessment

- 3.1.3 The following changes are relevant to this assessment:
- the results of geophysical surveys undertaken; and
 - potential new areas of ancient woodland which may be added to the ancient woodland Inventory.

Environmental baseline

Existing baseline

- 3.1.4 The cultural heritage baseline for the assessment takes into account information collected in support of the main ES, which included walk-over and geophysical survey, remote-sensing data, and data from national and local registers. A full list of heritage assets is provided in Volume 2, Section 6.3 of the main ES for CFA17. In addition, the baseline has been updated with the results of survey work comprising geophysical surveys for archaeology, and a further review of historic mapping and other available historic data sources to verify the status of a number of sites which the Woodland Trust believe to be ancient woodland.
- 3.1.5 A summary of the baseline information relevant to the assessment of new or different effects is set out below. For those assets described in the main ES, full details are provided in the baseline reports, gazetteer of heritage assets, impact assessment tables and survey reports in Volume 5 of the main ES, and are shown on maps CH-01 (Heritage Assets within Study Area), CH-02 (Designated Heritage Assets) and CH-03 Archaeological Character Sub-zones.

Designated assets

- 3.1.6 In addition to the designated assets reported in the main ES, an area of woodland has been identified as likely to meet the criteria for designation as ancient woodland and is likely to be added to the ancient woodland Inventory. This is Burnt Firs (asset

reference OFCo57¹) which is located approximately 230m east of Welsh Road and approximately 80m south of Burnt Heath Farm (map CH-01-106:H6 Volume 2, CFA17 SES and AP2 Map Book). This is a new heritage asset which has been assessed as being of high value.

Non-designated assets

- 3.1.7 In addition to the non-designated assets reported in the main ES, new non-designated assets have been identified, following the results of geophysical survey at:
- land off Fosse Way, near Offchurch (CN008²);
 - area off Fosse Way, near Offchurch (CN009);
 - land off Fosse Way, Offchurch (CN010);
 - site close to Hunningham, near Royal Leamington Spa (CN011);
 - land between Hunningham and the River Leam, near Royal Leamington Spa (CN012); and
 - land close to Lower Grange and the River Leam, near Royal Leamington Spa (CN017).
- 3.1.8 The surveys conducted at CN008, CN009 and CN010 (asset reference OFCo58), revealed areas of archaeological anomalies³ along with areas of possible archaeology⁴. These archaeological anomalies have been attributed to ditches, pit-like features and areas of ridge and furrow. Extant ridge and furrow is evident to the north-west of the survey area (Valley Fields, asset reference OFCo270). Collectively these site features are assessed as being of low value.
- 3.1.9 The survey carried out at CN011 has recorded archaeological anomalies and possible archaeological features. The archaeological anomalies are most evident in the western field, but associated anomalies continue into the eastern field. The results indicate the presence of a large circular enclosure ditch. Archaeological anomalies were recorded at the western extent of the CN011 survey area; a rectangular ditch is recorded, along with possible pit and ditch type features. This suggests further settlement-type activity, although the relationship between this and the larger circular enclosure settlement is unclear. The presence of ridge and furrow is also recorded at the north-western part of the site, with extant ridge and furrow evident to the north-west of the survey area (asset references OFCo36, OFCo44).
- 3.1.10 Archaeological anomalies of a similar nature are also recorded in CN012. In the central, eastern part of the site, two distinctive and adjacent sub-rectangular enclosures are evident, with a further two smaller rectangular sub-enclosures adjoining them. Ridge and furrow is also evident. The archaeological anomalies are interpreted as a potential settlement area. The cutting of some of these features by

¹ Cultural heritage assets are identified with a unique reference code, OFCXXX; further detail on these assets can be found in the gazetteer in Volume 5 of the main ES: Appendix CH-002-017.

² This is a reference to the unique geophysical survey land parcel.

³ Geophysical responses that differ to the relative background values and are interpreted as being of anthropogenic origin and generally dating to before 1900.

⁴ A feature that has been interpreted as being of possible anthropogenic origin, and generally dating to before 1900.

later ditches would suggest that the settlement had at least two different phases of activity. The interpretation of the results of the geophysical survey suggest that these phases of occupation date to the Iron Age or Romano-British period. The survey at CNo17 revealed only one feature indicative of possible archaeology which could be interpreted as a curvilinear ditch.

- 3.1.11 The sites at CNo11, CNo12 and CNo17 (asset reference OFCo59) are collectively considered to be of moderate value.

Future baseline

Construction (2017)

- 3.1.12 The future baseline for construction in 2017 remains unchanged from that reported in the main ES.

Operation (2026)

- 3.1.13 No committed developments have been identified in this local area that will materially alter the baseline conditions in 2026.

Effects arising during construction

Avoidance and mitigation measures

- 3.1.14 The provisions set out in the draft CoCP will be followed as detailed in the main ES (Volume 5, Appendix CT-003-000).

Assessment of impacts and effects

Temporary effects

- 3.1.15 The changes as a result of the geophysical surveys undertaken and the area of woodland that is likely to be added to the ancient woodland Inventory will not give rise to any new or different significant temporary effects and will not change the level of significance of the effects reported in the main ES.

Permanent effects

- 3.1.16 The identification of Burnt Firs (asset reference OFCo57) as an area of woodland likely to be added to the ancient woodland Inventory and a high value asset will give rise to a new significant effect as the route will cut through the south-western section of the water feature that forms part of the woodland. There has been a pond in this location since at least 1845 (Offchurch Parish Tithe Map), but it has since been considerably extended and is now listed as an agricultural reservoir. The topography of the area including Burnt Firs is to be reprofiled and landscape mitigation planting is also proposed across the Burnt Firs woodland. These changes would constitute a high adverse impact on this high value asset as it would entirely alter significant historic characteristics. This would result in a new major adverse effect (refer to SES and AP2 ES Volume 5: Appendix CH-003-017).
- 3.1.17 The identification of a new area of archaeological remains of low value off Fosse Way (asset reference OFCo58) will give rise to a new significant effect. Three geophysical surveys undertaken in February 2015 (CNo08, CNo09, CNo10) identified limited and dispersed anomalies with areas of ridge and furrow. Of these, the survey that revealed the greatest number of anomalies of archaeological origin was CNo08, which lies

adjacent to Burnt Firs (asset reference OFCo57). The potential buried archaeological remains in this location will be removed through construction of the scheme and new landscape mitigation and topography reprofiling. Remains within the bounds of survey area CNo09 will be equally affected by construction of the scheme and the realigned Welsh Road. There will also be impacts on potential buried archaeological remains in the CNo10 survey area from construction. This area is also identified for a construction compound, stockpiles and temporary workers' accommodation, which will result in archaeological remains being truncated or destroyed. Overall the scheme will have a high adverse impact on this asset of low value, constituting a new moderate adverse significant effect (refer to SES and AP2 ES Volume 5: Appendix CH-003-017).

- 3.1.18 The identification of a new area of moderate value archaeological remains in fields between Fields Farm and the River Leam (asset reference OFCo59) will give rise to a new significant effect. The results of the geophysical surveys revealed a complex of ditch features that has been interpreted as two settlements possibly dating from the Iron Age or Romano-British periods. The number of archaeological anomalies and possible archaeology in this area make this asset of moderate value. The scheme in this area includes the construction of the route on embankment and two balancing ponds. Groundworks will disturb and remove the known archaeological remains resulting in loss of this asset. This will cause a high adverse impact on an asset of moderate value, resulting in a new major adverse significant effect (refer to SES and AP2 ES Volume 5: Appendix CH-003-017).

Other mitigation measures

- 3.1.19 No further mitigation measures are required other than those set out as part of the draft CoCP (Volume 5, Appendix CT-003-000).

Cumulative effects

- 3.1.20 There are no new or different likely significant cumulative effects for cultural heritage as a result of the new baseline information acting in combination with other SES changes, or as a result of any relevant committed developments.

Summary of likely residual significant effects

- 3.1.21 There will be three new residual significant effects as a result of changes to baseline information that were not reported in the main ES.
- 3.1.22 There will be a major adverse residual significant effect on Burnt Firs (asset reference OFCo57), a major adverse residual significant effect on the archaeological site between Fields Farm and the River Leam (asset reference OFCo59), and a moderate adverse residual significant effect on the site of archaeological interest off Fosse Way (asset reference OFCo58).

Effects arising from operation

- 3.1.23 There are no new or different significant operational effects as a result of the new baseline information.

3.2 Ecology

Introduction

- 3.2.1 This section of the report describes the environmental baseline in relation to ecology that is relevant to the assessment. It then identifies any new or different likely significant environmental effects as a result of the changes introduced in Section 2, compared to the original scheme. Consideration is given to the potential for impacts on species, habitats and sites designated on the basis of their importance for nature conservation.

Scope, assumptions and limitations

- 3.2.2 The assessment scope for ecology is as set out in Volume 1 of the SES and AP2 ES. The key assumptions and limitations, and the methodology for determining significance of effects are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001-000/1) and the SMR Addendum (Volume 5: Appendix CT-001-000/2) of the main ES.
- 3.2.3 To address any limitations in data, a precautionary baseline has been considered according to the guidance reported in the main ES, Volume 5: Appendix CT-001-000/2. This constitutes a 'reasonable worst case' basis for the subsequent assessment. The precautionary approach to the assessment that has been adopted identifies the likely significant ecological effects of the SES scheme.

Changes of relevance to this assessment

- 3.2.4 New information in relation to the status of Burnt Firs Woodland is the only change of relevance to this assessment.

Environmental baseline

Existing baseline

- 3.2.5 The ecological baseline for the assessment takes into account baseline information collected in support of the main ES, which included field-survey data, aerial photography and relevant existing information gathered from national organisations and from regional and local sources. A full list of data sources that informed the main ES is provided in CFA17, Volume 2, Section 7 of the main ES.
- 3.2.6 The assessment also takes into account additional desk-study and survey information collected since September 2013. Supplementary information relevant to the assessment in this CFA consists of a review of further heritage and ecological data relating to the status of Burnt Firs woodland.
- 3.2.7 A summary of the baseline information relevant to the assessment is provided below. Further details of all baseline information obtained since September 2013 is provided in the Volume 5: SES and AP2 Appendix EC-001-017. For those receptors described in the main ES, further details are provided in CFA17, Section 7 and in Volume 5, including maps EC-01 to EC-12.

Designated sites

- 3.2.8 A review of historic documents undertaken since publication of the main ES has concluded that Burnt Firs woodland is likely to be ancient and is therefore likely to be added to the ancient woodland inventory. The following assessment considers it as ancient woodland.

Habitats

- 3.2.9 Burnt Firs is adjacent to Burnt Heath Farm and almost wholly within the land required for the construction of the original scheme.. The woodland was described in the main ES as being a small woodland plantation surrounding an agricultural reservoir and was assumed to be of local/parish value; no survey work has been undertaken due to access restrictions. Given that the woodland is now assumed to be ancient, there is considered to be greater potential for ecological interest. On that basis the value of woodland habitat at Burnt Firs has been increased to district/borough level.

Future baseline

Construction (2017)

- 3.2.10 The future baseline for construction in 2017 remains unchanged from that reported in the main ES.

Operation (2026)

- 3.2.11 No committed developments have been identified in this local area that will materially alter the baseline conditions in 2026.

Effects arising during construction

Avoidance and mitigation measures

- 3.2.12 The assessment assumes implementation of the measures set out within the draft CoCP (Volume 5: Appendix CT-003-000 of the main ES), which includes translocation of protected species where appropriate.

Assessment of impacts and effects

Designated sites

- 3.2.13 The new baseline information will not give rise to new or different significant effects on designated sites and will not change the level of significance of the effects reported in the main ES.

Habitats

- 3.2.14 The land required for the construction of the original scheme will cause the loss of approximately 1.4 ha of ancient woodland at Burnt Firs around the agricultural reservoir. The remaining woodland will be smaller in size and more vulnerable to degradation through edge effects such as encroachment of scrub and wind throw during storms. Ancient woodland is an irreplaceable resource.
- 3.2.15 Within the main ES, Burnt Firs was considered as being of local/parish value. Therefore while its loss was considered in the main ES it did not generate a significant adverse effect. The SES scheme will result in an adverse effect on the conservation

status of the woodland at Burnt Firs that is significant at a district/borough level. This is a new significant effect which is not reported in the main ES.

- 3.2.16 It is unlikely that the new baseline information will result in any other new or different effects on habitat receptors of relevance at more than the local/parish level. Additional local/parish level effects (i.e. in addition to those identified in the main ES) arising from the new baseline information are listed in Volume 5: SES and AP2 Appendix EC-003-017.

Protected and/or notable species

- 3.2.17 It is unlikely that the new baseline information will result in any new or different effects on species receptors of relevance at more than the local/parish level. Additional local/parish level effects (i.e. in addition to those identified in the main ES) arising from SES new baseline information are listed in Volume 5: SES and AP2 Appendix EC-003-017.

Other mitigation measures

- 3.2.18 There is a requirement for additional compensation to address the loss of 1.4ha of woodland at Burnt Firs, which is likely to be ancient. Appropriate measures are expected to be brought forward either in a subsequent AP or by direct agreement with landowners.

Summary of likely residual significant effects

- 3.2.19 The loss of woodland at Burnt Firs, now considered likely to be ancient woodland, will result in a new adverse residual effect that is significant at the district/borough level which was not reported in the main ES. Ancient woodland is an irreplaceable resource.

Effects arising from operation

- 3.2.20 There are no new or different operational effects for ecology as a result of new baseline information.

Part 2: Additional Provision 2 Environmental Statement

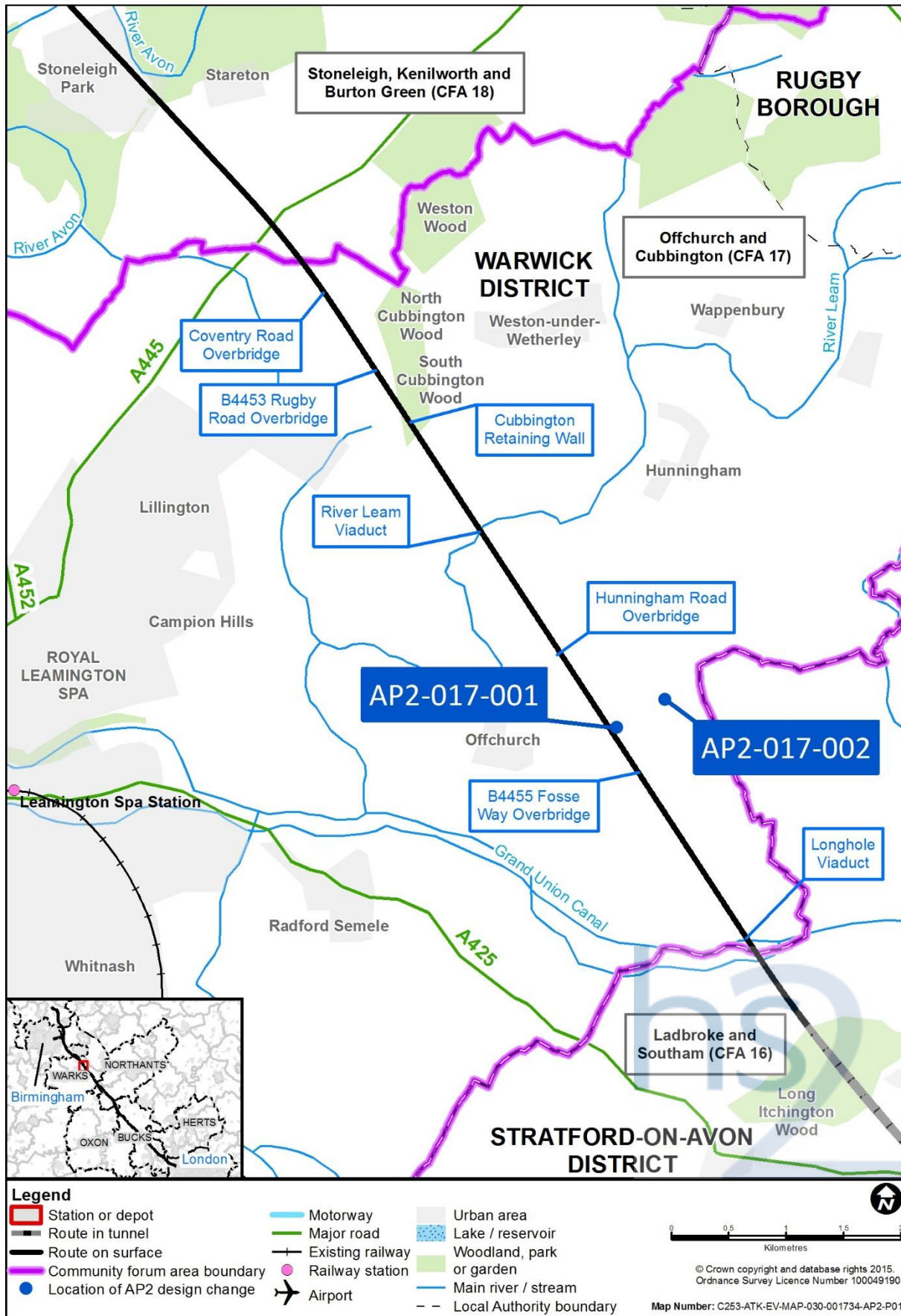
4 Summary of amendments

4.1.1 Table 1 provides a summary of the amendments in the Offchurch and Cubbington CFA (CFA17) and Figure 1 shows the locations.

Table 1: Summary of amendments in CFA17

Name of amendment	Description of the original scheme or AP1 revised scheme	Description of the AP2 revised scheme
<p>Additional land for drainage infrastructure to the east of the Offchurch Cutting. (AP2-017-001)</p>	<p>Highway drainage into a spinney via a 'swale' (a shallow drainage area along the top of Offchurch Cutting at Offchurch Greenway).</p>	<p>The drainage design is revised to replace the swale with an open lined ditch passing between Sutton Spinney and the top of the cutting. The ditch will be extended to pass under the Offchurch Greenway via a culvert to connect to the existing watercourse. An additional 0.8ha of land will be required temporarily during construction to complete this work, of which 0.3ha will be required permanently.</p>
<p>Provision of the Offchurch Greenway cycle bridge over Fosse Way. (AP2-017-002)</p>	<p>Diversion of National Cycle Route 41 from Long Itchington Road onto Offchurch Greenway over new green bridge crossing the route of the Proposed Scheme and then across a field to re-join its existing route on Fosse Way.</p>	<p>Replacement of the cycleway link between the existing Offchurch Greenway and Fosse Way proposed in the original scheme with a new cycle and pedestrian bridge over Fosse Way. This amendment will require approximately 1.5ha of additional land permanently, of which 0.27ha is agricultural land. A ramp will connect the bridge to Fosse Way and a cycle path on the east verge of Fosse Way will connect the bridge to Long Itchington Road. A link between Footpath W192 and Offchurch Greenway will also be provided. Landscape mitigation planting will be provided on the new earthworks.</p>

Figure 1: Locations of amendments in CFA17



5 Assessment of amendments

5.1 Additional land for drainage infrastructure to the east of the Offchurch Cutting (AP2-017-001)

- 5.1.1 The Bill provides for highway drainage to the east of the HS2 route along the top of Offchurch Cutting to discharge into a spinney via a swale (a shallow drainage area) (see map CT-06-08g (Volume 2, CFA17 Map Book) in the main ES). Since submission of the Bill it has been identified that this creates the possibility of discharge into the Offchurch Cutting and the HS2 route drainage system. Consequently this amendment replaces the swale with an open lined ditch passing between the spinney and the crest of the cutting. This ditch is extended to pass under the Offchurch Greenway through a culvert to connect to the existing watercourse. The existing ordinary watercourse will need to be extended and possibly regraded.
- 5.1.2 The additional land required for this change is outside the existing limits of the Bill, hence the need for this amendment. An additional 0.8ha of land will be required temporarily during construction to complete this work, of which 0.3ha will be required permanently.
- 5.1.3 This localised change to the drainage arrangements at Offchurch Cutting across Offchurch Greenway is not considered to require a reassessment of the environmental effects or proposed mitigation as set out in the main ES with respect to: air quality; community; ecology; land quality; landscape and visual assessment, socio-economics; sound, noise and vibration; or traffic and transport. However, reassessment was considered to be required in respect of: agriculture, forestry and soils; cultural heritage; and water resources and flood risk assessment.

Agriculture, forestry and soils

Scope, assumptions and limitations

- 5.1.4 The assessment scope, key assumptions and limitations for agriculture, forestry and soils are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001 -000/1) and the SMR Addendum (Volume 5: Appendix CT-001-000/2) of the main ES.

Existing baseline

- 5.1.5 The land affected by this amendment is located in the vicinity of a disused railway to the northeast of Offchurch. Here the land is covered by intermittent superficial glacial deposits comprising clays with sand and gravel, over bedrock of the Mercia Mudstone formation. Soils in this area are mostly in the Wick 1 association which comprises sandy loam soils, locally over gravel, which are mostly well drained although can have slight seasonal waterlogging where affected by groundwater (Wetness Class (WC) I to II). Agricultural land developed in sandy loam soils over sands and gravel in this area is predominantly classified as Grade 2, due to limitations imposed by wetness during the winter and droughtiness during the growing season.
- 5.1.6 The amendment affects one farm holding previously assessed in the main ES: Fosse Farm (CFA17/2). This is understood to be an approximately 187ha arable enterprise, with some diversification in a commercial equine enterprise. This holding is considered to be of medium sensitivity to change.

Future baseline

Construction (2017)

- 5.1.7 No committed developments have been identified in this local area that will materially alter the baseline conditions in 2017.
- 5.1.8 Most existing environmental stewardship agreements will expire in 2015 and will be replaced by a new environmental land management scheme (countryside stewardship) which is voluntary but competitive. It is more targeted than previous schemes, with its priorities being to protect and enhance biodiversity and water quality.
- 5.1.9 The widespread basic environmental management associated with Entry Level Stewardship will be replaced by a new concept of greening introduced by Common Agricultural Policy reform, which will now be the main means by which farmers will provide environmental benefits in return for their direct support payments. Greening will encourage the retention of permanent grasslands, greater crop diversification and the creation of Ecological Focus Areas. These changes will affect the detailed management of individual farm holdings but are not expected to change fundamentally the baseline circumstances described.

Operation (2026)

- 5.1.10 No committed developments have been identified in this local area that will materially alter the baseline conditions in 2026.

Effects arising during construction

- 5.1.11 The proposed amendment (AP2-017-001) will result in a further 526m² of Grade 2 agricultural land being required permanently as a result of construction. However, this is a small change in comparison to the 110ha of best and most versatile land associated with the original scheme and will not result in a new or different significant effect or change the level of significance of the effects reported in the main ES.
- 5.1.12 Although the land required from Fosse Farm on a temporary and permanent basis for the construction of the original scheme is likely to give rise to an impact of low magnitude, the main ES reported moderate adverse effects on the holding during and following construction due to the temporary and permanent severance of agricultural land, which is significant. The area of agricultural land required permanently from the holding will increase from 12.10ha to approximately 12.15ha (7%) as a result of the amendment but this will not result in a new or different significant effect or change the level of significance of the effects reported in the main ES which are determined for this holding by the severance impacts.

Effects arising from operation

- 5.1.13 The proposed amendment will not give rise to a new or different significant effect and will not change the level of significance of the effects reported in the main ES.

Mitigation and residual effects

- 5.1.14 No further mitigation measures are required other than those set out as part of the draft CoCP (Volume 5, Appendix CT-003-000).

- 5.1.15 The amendment will result in no new or different significant effects and no change in the level of significance of the effects reported in the main ES.

Cumulative effects

- 5.1.16 The cumulative effects of this amendment with AP2-017-002 are reported under the cumulative effects section of that amendment.

Cultural heritage

Scope, assumptions and limitations

- 5.1.17 The assessment scope, key assumptions and limitations for cultural heritage are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001 -000) and the SMR Addendum (Volume 5: Appendix CT-001-000) of the main ES. These are the same as the main ES.

Existing baseline

- 5.1.18 The cultural heritage baseline for the assessment takes into account information collected in support of the main ES, which included walk-over and geophysical survey, remote-sensing data, and data from national and local registers. A full list of heritage assets is provided in Volume 2, Section 6.3 of the main ES. In addition, the baseline has been updated with the results of additional survey work comprising geophysical surveys for archaeology.
- 5.1.19 Details of survey and desk-study undertaken in this CFA since September 2013 is provided in Volume 5: Appendix CH-004-017 and Volume 5 map series CH-01; CH-02 and CH-03, where this is relevant to the assessment of a new or different significant effect.
- 5.1.20 The main ES baseline provided in Volume 5, Gazetteer of Heritage Assets (Appendix CH-002-017), lists assets which could be affected by changes introduced by the drainage scheme at Offchurch Cutting. There are no known heritage assets recorded within the area of new land required for the construction of the scheme.

Future baseline

Construction (2017)

- 5.1.21 The future baseline for construction in 2017 remains unchanged from that reported in the main ES.

Operation (2026)

- 5.1.22 No committed developments have been identified in this local area that will materially alter the baseline conditions in 2026.

Effects arising during construction

- 5.1.23 This amendment requires additional land in comparison to the original scheme. The new drainage scheme concerns the replacement of a swale with a ditch. There are no known archaeological remains present within the area of the proposed amendment (no records exist within the regional Historic Environment Record). There is very limited potential for currently unrecorded archaeological remains to exist in this area; given the limited scale of groundworks and the presence of an extant water course, it

is very unlikely that disturbance to any unrecorded archaeological remains would result in a significant effect.

- 5.1.24 The proposed amendment (AP-017-001) will not give rise to a new or different significant effect and will not change the level of significance of the effects reported in the main ES.

Effects arising from operation

- 5.1.25 The proposed amendment (AP2-017-001) will not give rise to a new or different significant effect and will not change the level of significance of the effects reported in the main ES.

Mitigation and residual effects

- 5.1.26 No further mitigation measures are required other than those set out as part of the draft CoCP (Volume 5, Appendix CT-003-000).
- 5.1.27 The amendment will result in no change in the likely residual significant effects reported in the main ES.

Cumulative effects

- 5.1.28 There are no new or different likely significant cumulative effects for cultural heritage as a result of the proposed amendment acting in combination with another amendment in AP2.

Water resources and flood risk assessment

Scope, assumptions and limitations

- 5.1.29 The assessment scope, key assumptions and limitations for water resources and flood risk are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001 -000/1) and the SMR Addendum (Volume 5: Appendix CT-001-000/2) of the main ES.

Existing baseline

- 5.1.30 The water resources and flood risk baseline for the assessment takes into account baseline information collected in support of the main ES, which included field-survey data, aerial photography and relevant existing information gathered from national organisations and from regional and local sources. A full list is provided in CFA17, Volume 2, Section 13 of the main ES.
- 5.1.31 Updated national baseline data from the Environment Agency relating to surface water flooding and abstractions and discharges have been used to assess this amendment.
- 5.1.32 The description of the surface water flood risk in Volume 5 of the main ES remains broadly consistent with the new data sets. The unnamed watercourse that receives the discharge from the revised drainage arrangements is designated as low surface water flood risk immediately downstream of the Offchurch Greenway.
- 5.1.33 The updated surface water flooding data does not alter the overall importance or significance of effects in this area. In relation to flood risk, the land is classified as less vulnerable, and therefore is a moderate value receptor, as reported in the main ES.

- 5.1.34 The location of the amendments to the drainage infrastructure is underlain by the Mercia Mudstone Group, a Secondary B aquifer, which is classified as a moderate value receptor.

Future baseline

Construction (2017)

- 5.1.35 The future baseline for construction in 2017 remains unchanged from that reported in the main ES (Volume 5, Appendix CT-004-000).

Operation (2026)

- 5.1.36 No committed developments have been identified in this local area that will materially alter the baseline conditions in 2026.

Effects arising during construction

Temporary effects

- 5.1.37 The proposed amendment to the drainage infrastructure will not give rise to a new or different significant temporary effect and will not change the level of significance of the effects reported in the main ES as all effects will be permanent.

Permanent effects

- 5.1.38 The proposed amendment replaces an unlined swale with a lined ditch designed to convey water to the unnamed watercourse located immediately north of the Offchurch Greenway. This amendment may reduce groundwater recharge to the Secondary B aquifer. It is also likely to result in increased run-off to the unnamed watercourse which may increase the risk of fluvial flooding from this watercourse.
- 5.1.39 The lined ditch will include measures to attenuate the run-off within the ditch (e.g. check dams), minimising the impact of the increased run-off rate and volume into the existing ditch.
- 5.1.40 The additional volumes of surface water are likely to be small such that the impact would be minor adverse. Given that the flood risk receptors associated with the ditch are of moderate importance, this would lead to a slight adverse effect which is different to that reported in the main ES (neutral effect) but is not significant.
- 5.1.41 The reduction in groundwater recharge is likely to be small in the context of the large extent of the surface recharge area of the aquifer, and as such the impact would be minor adverse. The aquifer is of moderate importance, leading to a slight adverse effect which is different to that reported in the main ES (neutral effect) but is not significant.
- 5.1.42 In conclusion, the proposed amendment to the drainage infrastructure will not give rise to a new or different significant effect with respect to permanent construction impacts, but it will change the level of significance of the effects reported in the main ES from neutral to slight adverse, which is not significant.

Effects arising from operation

- 5.1.43 The proposed amendment to the drainage infrastructure will not give rise to a new or different significant operational effect and will not change the level of significance of the operational effects reported in the main ES.

Mitigation and residual effects

- 5.1.44 The amendment will result in no change in the likely residual significant effects reported in the main ES and hence there are no additional mitigation measures required.

Cumulative effects

- 5.1.45 There are no new or different likely significant cumulative effects for water resources and flood risk as a result of the proposed amendment acting in combination with another amendment in AP2, or as a result of any relevant committed development interacting with the AP2 revised scheme.

5.2 Summary of new or different likely residual significant effects as a result of the amendment

- 5.2.1 The amendment will not give rise to any new or different significant effects or change the level of any significant effects reported in the main ES.

5.3 Provision of Offchurch Greenway Cycle Bridge over Fosse Way (AP2-017-002)

- 5.3.1 The Bill provided for a new at grade cycleway link between Offchurch Greenway and Fosse Way, across a field. This was designed to reconnect Sustrans National Cycleway Network (NCN) Route 41 with its original route, after its realignment across the HS2 route on the Offchurch Greenway Green overbridge.
- 5.3.2 Since submission of the Bill the design has been amended to provide a new cycle and pedestrian bridge over Fosse Way which will begin where the Offchurch Greenway currently ends. A ramp will connect the bridge to the north-east side of Fosse Way. A 2m wide gravel cycle path on the east verge of Fosse Way will be provided between the bridge and Long Itchington Road. A link between Footpath W192 and the Offchurch Greenway is also being provided so that users can cross the Fosse Way over the bridge. Temporary diversions of W192 are required on both sides of Fosse Way during construction of the bridge. The new bridge will allow future development of Sustrans NCN Route 41 and the Greenway north-east along the disused Leamington to Rugby railway line. The bridge provides a safe crossing over Fosse Way. Landscape mitigation planting will be provided on the new earthworks.
- 5.3.3 The bridge will be a three span structure approximately 45m long at approximately 45 degrees skew across the road, to align with the disused railway. New bridge abutments will be provided with infill as needed to connect to the existing former rail embankments. Approximately 1.5ha of additional land is permanently required for construction of this bridge, of which 0.27ha is agricultural land. The additional land required is outside the existing limits of the Bill, hence the need for this amendment.

- 5.3.4 The amendment to provide a cycle and pedestrian bridge to connect the Offchurch Greenway over Fosse Way is not considered to make changes requiring reassessment of the environmental effects or proposed mitigation as set out in the main ES with respect to: air quality; community; land quality; landscape and visual assessment; socio-economics; or water resources and flood risk assessment. However, reassessment was considered to be required in respect of: agriculture, forestry and soils; cultural heritage; ecology; sound, noise and vibration; and traffic and transport.

Agriculture, forestry and soils

Scope, assumptions and limitations

- 5.3.5 The assessment scope, key assumptions and limitations for agriculture, forestry and soils are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001 -000/1) and the SMR Addendum (Volume 5: Appendix CT-001-000/2) of the main ES.

Existing baseline

- 5.3.6 The land affected by this amendment is located in the vicinity of a disused railway and the B4455 (Fosse Way) to the northeast of Offchurch. Here, the land is covered by intermittent superficial glacial deposits comprising clays with sand and gravel, over bedrock of the Mercia Mudstone formation. Most soils in this area are in the Wick 1 association, which comprises sandy loam soils, locally over gravel, and which are mostly well drained but can have slight seasonal waterlogging where affected by groundwater (WC I to II). Most agricultural land developed on these soils in this area is classified as Grade 2, due to slight interactive limitations, from wetness during the winter and droughtiness during the growing season.
- 5.3.7 This amendment affects one farm holding previously assessed in the main ES: Fosse Farm (CFA17/2) which is also affected by AP2-017-001. As summarised in the agriculture assessment of the previous amendment, this is understood to be an approximately 187ha arable enterprise, with some diversification in a commercial equine enterprise. This holding is considered to be of medium sensitivity to change.

Future baseline

Construction (2017)

- 5.3.8 No committed developments have been identified in this local area that will materially alter the baseline conditions in 2017.
- 5.3.9 Most existing environmental stewardship agreements will expire in 2015 and will be replaced by a new environmental land management scheme (countryside stewardship) which is voluntary but competitive. It is more targeted than previous schemes, with its priorities being to protect and enhance biodiversity and water quality.
- 5.3.10 The widespread basic environmental management associated with entry level stewardship will be replaced by a new concept of greening introduced by Common Agricultural Policy reform, which will now be the main means by which farmers will provide environmental benefits in return for their direct support payments. Greening will encourage the retention of permanent grasslands, greater crop diversification and the creation of Ecological Focus Areas. These changes will affect the detailed

management of individual farm holdings but are not expected to change fundamentally the baseline circumstances described.

Operation (2026)

- 5.3.11 No committed developments have been identified in this local area that will materially alter the baseline conditions in 2026.

Effects arising during construction

- 5.3.12 The main ES reported moderate adverse effects temporarily during construction and permanently following construction due to the severance of agricultural land on Fosse Farm (CFA17/2), which is significant.
- 5.3.13 The proposed amendment (AP2-017-002) results in the requirement for a further 0.27ha of Grade 2 agricultural land during construction. However, this is a small change in comparison to the 94ha of Grade 2 agricultural land required in this CFA for the original scheme and this will not change the level of significance of the effects reported in the main ES.
- 5.3.14 The main ES reported a permanent moderate adverse significant effect on Fosse Farm (CFA17/2) resulting from the loss of 12.10ha (7%) from the holding. The area of agricultural land required permanently from the holding will increase from 12.10ha to approximately 12.37ha (7%) as a result of the amendment. However this is a small change and will not change the level of significance of the effects reported in the main ES.

Effects arising from operation

- 5.3.15 The proposed amendment will not give rise to a new or different significant effect and will not change the level of significance of the effects reported in the main ES.

Mitigation and residual effects

- 5.3.16 No further mitigation measures are required other than those set out as part of the draft CoCP (Volume 5, Appendix CT-003-000).
- 5.3.17 The amendment will result in no change in the likely residual significant effects reported in the main ES.

Cumulative effects

- 5.3.18 This amendment is not considered to have any likely significant cumulative effects for agriculture, forestry and soils as a result of any committed development.
- 5.3.19 Fosse Farm (CFA17/2) is affected by two amendments. The combined requirement for 0.32ha of additional agricultural land required permanently from this holding does not change the magnitude of impact on the farm holding during or following construction, nor the significance of effect on the holding (moderate adverse), reported in the main ES.

Cultural heritage

Scope, assumptions and limitations

- 5.3.20 The assessment scope, key assumptions and limitations for cultural heritage are as set out Volume 1, the SMR (Volume 5: Appendix CT-001 -000) and the SMR Addendum (Volume 5: Appendix CT-001-000) of the main ES. These are the same as the main ES.

Environmental baseline

- 5.3.21 The cultural heritage baseline for the assessment takes into account information collected in support of the main ES, which included walk-over and geophysical survey, remote-sensing data, and data derived from national and local registers. A full list of heritage assets is provided in Volume 2, CFA 17, Section 6.3 of the main ES. In addition, the baseline has been updated with the results of additional survey work comprising geophysical surveys for archaeology.
- 5.3.22 Details of survey and desk-study undertaken in this CFA since September 2013 is provided in SES and AP2 ES Volume 5: Appendix CH-004-017 and Volume 5 map series CH-01; CH-02 and CH-03, where this is relevant to the assessment of a new or different significant effect.
- 5.3.23 The main ES baseline provided in Volume 5 Gazetteer of Heritage Assets (Appendix CH-002-017), lists assets which could be affected by scheme changes introduced by the Offchurch Greenway cycle bridge. Heritage assets potentially affected through physical change and impacts on setting impacts are:
- disused railway (asset reference: OFCo18); undesignated and of low value;
 - Fosse Farm (asset reference: OFCo17); undesignated and of low value; and
 - Hunnington Railway Bridge (asset reference: OFCo19); Grade II* Listed building of high value.

Future baseline

Construction (2017)

- 5.3.24 The future baseline for construction in 2017 remains unchanged from that reported in the main ES.

Operation (2026)

- 5.3.25 No committed developments have been identified in this area that will materially alter the baseline conditions in 2026.

Effects arising during construction

- 5.3.26 This amendment requires additional land in comparison with the original scheme. The new cycle and pedestrian bridge abutments will connect into the rail embankments of the disused railway (asset reference OFCo18). There are no recorded archaeological remains or railway heritage assets present associated with the disused railway (asset reference: OFCo18) in this new area of land required for the construction of the scheme. The proposed amendment (AP2-017-002) will not give rise to a new or different significant effect on the disused railway and will not change the level of significance of the effects reported in the main ES.

- 5.3.27 Fosse Farm (asset reference OFCo17) lies approximately 45m to the north of the proposed cycle bridge site. It lies within a rural setting and is surrounded by mature planting and trees on its southern extent and along the Fosse Way (B4455). The construction of the new cycle and pedestrian bridge would result in minimal temporary adverse impact due to noise from construction machinery which will be an additional temporary intrusion on its relatively tranquil, rural setting. This would result in a negligible effect, which is not significant. The proposed amendment (AP-017-002) will not give rise to a new or different significant effect and will not change the level of significance of the effects reported in the main ES.

Effects arising from operation

- 5.3.28 Fosse Farm (asset reference OFCo17) lies approximately 45m to the north of the proposed cycle bridge site. The farm complex lies within a rural setting with the Fosse Way Roman Road (asset reference OCF012) on its western boundary and the disused railway (asset reference CF018) approximately 50m south. The new cycle bridge would form an additional structure along the Fosse Way enabling new access and pedestrian / cycle traffic at this location. The Farm is surrounded by mature planting and trees on its southern extent and along the Fosse Way (B4455). The permanent operation of the cycle way and bridge will constitute no change to the setting of the Farm and result in a neutral effect, which is not significant.
- 5.3.29 Hunnington Railway Bridge (asset reference OFCo19) lies approximately 800m north-east of the proposed cycle bridge site. The bridge's heritage value is derived from its architectural interest and the amendment will result in a neutral effect which is not significant.

Mitigation and residual effects

- 5.3.30 No further mitigation measures are required other than those set out as part of the draft CoCP (Volume 5, Appendix CT-003-000).
- 5.3.31 The amendment will result in no change in the likely residual significant effects reported in the main ES.

Cumulative effects

- 5.3.32 There are no new or different likely significant cumulative effects for cultural heritage as a result of the proposed amendment acting in combination with another amendment in AP2.

Ecology

Scope, assumptions and limitations

- 5.3.33 The assessment scope for ecology is as set out in Volume 1 of the SES and AP2 ES. The key assumptions and limitations, and the methodology for determining significance of effects are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001-000/01) and the SMR Addendum (Volume 5: Appendix CT-001-000/02) of the main ES.
- 5.3.34 To address any limitations in data, a precautionary baseline has been considered according to the guidance reported in the main ES, Volume 5: Appendix CT-001-000/2. This constitutes a 'reasonable worst case' basis for the subsequent assessment.

The precautionary approach to the assessment that has been adopted identifies the likely significant ecological effects of the AP2 revised scheme.

Existing baseline

- 5.3.35 The ecological baseline of the land required for the amendment has been based on data collated for the main ES including aerial photography.
- 5.3.36 A summary of the baseline information relevant to the assessment of the amendment is provided below. This takes account of any relevant new or updated baseline information. For those receptors described in the main ES, further details are provided in Volume 2, CFA17, Section 7 and in Volume 5, including maps EC-01 to EC-12.

Designated sites

- 5.3.37 There are no statutory designated sites, local wildlife sites, or ancient woodlands relevant to the assessment of the AP2 revised scheme.

Habitats

- 5.3.38 The area of land required for the amendment mainly supports secondary broadleaved woodland and scrub habitats that have developed along Offchurch Greenway. The woodland along Offchurch Greenway forms a linear corridor of habitat through an otherwise arable landscape and connects to several other woodland and scrub habitats in the area. This woodland is lowland mixed deciduous woodland, a habitat of principal importance, and is identified in the main ES as being of district/borough value.

Protected and/or notable species

- 5.3.39 There are no field survey data for protected or notable species within the land required for the amendment. However, survey work has been undertaken on adjacent land and aerial photography has been reviewed. None of the existing populations or assemblages of bats or birds identified in the main ES are likely to use Offchurch Greenway and the land required for the amendment. On the basis of current knowledge of the area, it is assumed that the land required for the amendment could contribute to the habitat of populations of breeding birds, wintering birds, reptiles and badgers that are of local/parish value.
- 5.3.40 The secondary woodland habitat within this land is suitable for foraging and commuting bats. A 'reasonable worst case' precautionary baseline has been assumed such that this habitat may be utilised by a wider population of common bat species of up to county/metropolitan value. However, based on current knowledge of the area, any trees present are only considered suitable to support non-breeding roosts used by low numbers of individuals. Bats from any population present may use the land required for commuting and foraging along the Offchurch Greenway.

Effects arising during construction

Avoidance and mitigation measures

- 5.3.41 The assessment assumes implementation of the measures set out within the draft CoCP (Volume 5: Appendix CT-003-000 of the main ES), which includes translocation of protected species where appropriate.

Designated sites

- 5.3.42 The proposed amendment will not give rise to new or different significant effects on designated sites and will not change the level of significance of the effects reported in the main ES.

Habitats

- 5.3.43 The main ES reported that 1.3ha of woodland and scrub would be lost where the original scheme intersects Offchurch Greenway to the south of the land required for the amendment. These impacts were reported as having a permanent adverse effect on the conservation status of the woodland and scrub associated with Offchurch Greenway that would be significant at a district/borough level.
- 5.3.44 The 1.5ha of land required for the construction of the cycle bridge over the Fosse Way, includes 0.8ha of woodland and scrub habitat which will be permanently lost along Offchurch Greenway. The remainder of the land required is of negligible ecological value.
- 5.3.45 The main ES reported effects on the conservation status of the woodland along Offchurch Greenway which will be significant at the district/borough level. The additional permanent loss of woodland and scrub would not change the level of the significance of the effects reported in the main ES.
- 5.3.46 It is unlikely that any other effects on habitats of relevance at more than the local/parish level will occur. Additional local/parish level effects arising from survey data collected since the main ES are listed in Volume 5: SES and AP2 Appendix EC-003-017.

Species

- 5.3.47 Based on a precautionary approach, it is assumed there is the potential that the land required may be utilised by a bat population of up to county/metropolitan value. However, habitat present is only considered likely to support non-breeding roosts of low numbers of common species, and the habitats present are unlikely to represent key foraging or commuting routes. Therefore even under a 'reasonable worst case' scenario the amendment is unlikely to result in any significant adverse effect on local bat populations.
- 5.3.48 It is considered unlikely that any other effects on species of relevance at more than the local/parish level will occur. Additional local/parish level effects arising from survey data collected since the main ES are listed in Volume 5: SES and AP2 Appendix EC-003-017.

Cumulative Effects

- 5.3.49 There are no new or different likely cumulative effects for ecology as a result of the proposed amendment acting in combination with another amendment in AP2.

Mitigation and residual effects

Other mitigation measures

- 5.3.50 The compensation for loss of woodland and scrub habitat along the Offchurch Greenway in the original scheme included 2.3ha of landscape planting (woodland and

scrub) between the B4455 Fosse Way and the Offchurch Greenway. This provides a greater area than the combined loss of 2.1ha of woodland and scrub lost from the original scheme and the AP2 revised scheme. In addition, approximately 0.1ha of new landscape planting (woodland and scrub) is provided on the earthworks proposed for the approaches to the cycle bridge over the Fosse Way as part of the AP2 revised scheme. In combination these measures will reduce the effect of the losses along the Offchurch Greenway to a level where they are not significant.

- 5.3.51 If pre-construction surveys identify non-breeding bat roosts to be present, then replacement roosting provision will be provided within the existing Bill limits, in accordance with the ecological principles of mitigation identified within the SMR Addendum of the main ES (Volume 5: Appendix CT-001-000/2 of the main ES).
- 5.3.52 No additional mitigation measures (i.e. in addition to those identified in the main ES and SES) are required.

Summary of likely residual effects

- 5.3.53 No new or different significant residual effects on ecological receptors occur as a consequence of the amendment. The likely significant residual effects of the AP2 revised scheme in this area are therefore unchanged from those reported in the main ES.

Effects arising from operation

- 5.3.54 There are no new or different operational effects for ecology as a result of the amendment.

Sound, noise and vibration

Scope, assumptions and limitations

- 5.3.55 The assessment scope, key assumptions and limitations for the sound, noise and vibration assessment are as set out in Volume 1, the SMR (Volume 5: Appendix CT-001-000/1) and the SMR Addendum (Volume 5: Appendix CT-001-000/2) of the main ES.
- 5.3.56 Local assumptions and limitations for sound, noise and vibration are set out in Volume 2 of the main ES for CFA17.

Existing baseline

- 5.3.57 The baseline sound, noise and vibration information for the area is described in the main ES (Volume 5; Appendix SV-002-017). Baseline noise levels representative of the assessment locations affected by the proposed amendment have been used in the construction assessments.

Future baseline

- 5.3.58 Without the original scheme, existing sound levels in this area are likely to increase gradually over time. This is primarily due to road traffic growth on the existing road network. Changes in vehicle technology may offset some of the expected sound level increases due to traffic growth on low speed roads. On higher speed roads, tyre sound dominates the overall levels and hence the expected growth in traffic is likely to continue to increase ambient sound levels.

Construction (2017)

- 5.3.59 The future baseline for construction in 2017 remains unchanged from that reported in the main ES (Volume 5; Appendix SV-002-017).
- 5.3.60 No committed developments have been identified in this local area that will materially alter the baseline conditions in 2017.

Operation (2026)

- 5.3.61 The future baseline for operation in 2026 remains unchanged from that reported in the main ES (Volume 5; Appendix SV-002-017).
- 5.3.62 No committed developments have been identified in this local area that will materially alter the baseline conditions in 2026.

Effects arising during construction

- 5.3.63 The amended design to provide a new cycle bridge over Fosse Way brings four additional receptors along the Fosse Way (ID 236006) within the spatial scope of the assessment⁵ as illustrated on SES and Ap2 Map Series SV-03. The proposed amendment has the potential to introduce a new construction noise impact due to changes in noise levels outside these dwellings.
- 5.3.64 An assessment has been undertaken to determine whether construction noise levels from the proposed amendment will result in a likely significant effect at the identified receptors, using the significance criteria detailed in the main ES (Volume 5 Appendix SV-001-000). Table 2 sets out the changes to the main ES, Volume 5, Appendix SV-004-017, Sound, Noise and Vibration Assessment for residential receptors. Explanation of the information within these tables is provided in the main ES Volume 5, Appendix SV-004-017.
- 5.3.65 The proposed amendment will not give rise to a new or different significant effect and will not change the level of significance of the effects reported in the main ES.

Effects arising from operation

- 5.3.66 There are no new or different operational effects for sound, noise and vibration as a result of the amendment.

Mitigation and residual effects

- 5.3.67 The assessment assumes the implementation of the principles and management processes set out in the draft CoCP, as described in the main ES Volume 2 CFA17. No additional mitigation is considered necessary as a result of the proposed amendment.
- 5.3.68 There are no new or different residual construction noise and vibration effects as a result of the proposed amendment, in comparison with the main ES.

Cumulative effects

- 5.3.69 There are no new or different likely significant cumulative effects for construction noise and vibration as a result of the proposed amendment acting in combination with

⁵ Refer to Section 14 of the SMR (Appendix CT-001-000/1) and the SMR Addendum (Appendix CT-001-000/2).

another amendment in AP2, or as a result of any relevant committed development interacting with the AP2 revised scheme.

Volume 5 amendments

- 5.3.70 Explanation of the information within Table 2 is provided in Appendix SV-001-000 and Appendix SV-003-017 (or Appendix SV-004-017 if an operational table) (Volume 5 of the main ES).

Table 2: Assessment of construction noise at residential receptors

Assessment location		Impact criteria			Significance criteria										Significant effect
ID	Area represented	Typical/highest monthly outdoor L_{pAeq} [dB] at the facade [Assessment category A/B/C]			Construction activity resulting in highest forecast noise levels	Type of effect	Number of impacts represented	Type of receptor	Receptor design	Existing environment	Unique feature	Combined impact	Impact duration [months]	Mitigation effect	
		Day 0700-1900	Evening 1900-2300	Night 2300-0700											
236006	Fosse Way, Offchurch, Leamington Spa	54/60	-	-	Site setup	NA	4	R	T	-	-	-	-	-	-

Key

R = Residential

T = Typical construction

Traffic and transport

Scope, assumptions and limitations

- 5.3.71 The assessment scope, key assumptions and limitations of the traffic and transport assessment are set out in Volume 1, the SMR (Volume 5: Appendix CT-0001-000/1) and the SMR Addendum (Volume 5: Appendix CT-0001-000/2) of the main ES.

Existing baseline

- 5.3.72 The existing baseline is as described in the main ES (Volume 2 CFA17, Section 12).
- 5.3.73 Non-motorised user surveys showed that Long Itchington Road, which forms part of NCN Route 41, has an average of eight cyclists per hour on a weekday during peak hours.

Future baseline

Construction

- 5.3.74 The future baseline for traffic and transport is as described in the main ES (Volume 2 CFA17, Section 12). There is no change to the future baseline for construction as reported in the main ES.

Operation (2026 and 2041)

- 5.3.75 The future baseline for traffic and transport is set out in Volume 2, CFA17 (Section 12) of the main ES. There is no change to the future baseline for operation as reported in the main ES.

Effects arising during construction

- 5.3.76 The AP2 revised scheme does not result in any material change to the level of construction activity and consequently will not change the significant traffic and transport effects due to construction traffic in this area.

Effects arising from operation

- 5.3.77 The AP2 revised scheme includes a new cycle bridge over the Fosse Way rather than the at grade connection across the Fosse Way as provided for in the original scheme. The AP2 revised scheme provides substantial benefits including the provision of a dedicated bridge over the Fosse Way for cyclists and pedestrians and the potential to extend the NCN Route 41 eastwards along the disused railway. Compared to using existing routes, cyclists using this new cycle bridge will have their journey extended by approximately 1070m, compared to the original scheme which led to an increase of 430m, to link to the NCN at Long Itchington Road. Taking into account the improved travel environment and new links, this would not be significant. The proposed change to the cycle route via a new Offchurch Greenway cycle bridge will not give rise to a new or different significant effect. No significant effects in operation related to this amendment were reported in the main ES.

Mitigation and residual effects

- 5.3.78 No changes to the mitigation described in the main ES (Volume 2 CFA17, Section 12) are required.

- 5.3.79 There are no new or different significant traffic and transport effects as a result of the amendment.

Cumulative effects

- 5.3.80 Cumulative effects are reported in Section 12, Volume 2, CFA17 of the main ES. The assessment includes the cumulative effects of planned development by taking this into account within the background traffic growth. The assessment also considers in combination effects by taking into account traffic and transport movements from nearby areas. However, in this regard there are no impacts from other areas.

5.4 Summary of new or different likely residual significant effects as a result of the amendment

- 5.4.1 The amendment will not give rise to any new or different significant effects or change the level of any significant effects reported in the main ES.

6 Combined effects of amendments in this CFA due to changes in traffic flows

- 6.1.1 All of the effects of the changes proposed in this CFA have been described above and there are no further combined effects to report.

High Speed Two (HS2) Limited

One Canada Square
London E14 5AB

T 020 7944 4908

E hs2enquiries@hs2.org.uk

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