A303 Amesbury to Berwick Down

Secretary of State letter 20 June 2022

Applicant's response to the request for comments
Q2 - Conclusion on alternative routes
Environmental Appraisal (Heritage) – Bored Tunnel Extension

Document reference: Re-determination 4.5

Planning Act 2008

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Foreword

The A303 Amesbury to Berwick Down scheme ("the Scheme") forms part of a package of proposals for the A303/A358 corridor, improving this vital connection between the South West and London and the South East and including the upgrade of remaining single carriageway sections on the route to dual carriageway. This investment is stated as a priority project in the National Infrastructure Plan and Government's commitment is confirmed in the Road Investment Strategy (2020-2025).

Objectives for the Scheme have been formulated both to address identified problems and to take advantage of the opportunities that new infrastructure would provide. The objectives are defined by the Department for Transport ("DfT"): Client Scheme Requirements.

- **Transport** - To create a high quality reliable route between the South East and the South West that meets the future needs of traffic;
- **Economic Growth** - To enable growth in jobs and housing by providing a free flowing and reliable connection between the South East and the South West;
- **Cultural Heritage** - To help conserve and enhance the World Heritage Site and to make it easier to reach and explore; and
- **Environment and Community** - To improve biodiversity and provide a positive legacy for nearby communities.

The objectives would be achieved by providing a high quality, two-lane dual carriageway on the A303 trunk road between Amesbury and Berwick Down in Wiltshire.

The Scheme would resolve traffic problems and, at the same time, protect and enhance the WHS. Key components comprise:

a) A bypass to the north of Winterbourne Stoke with a viaduct over the River Till valley;

b) A new junction between the A303 and A360 to the west of and outside the World Heritage Site, replacing the existing Longbarrow roundabout;

c) A twin-bore tunnel approximately 3km in length past Stonehenge;

d) A new flyover at Countess roundabout.

Executive Summary

This Environmental Appraisal (Simple Assessment – Heritage Only) (the 'Appraisal') sets out the likely impacts and significant effects that would result from the construction and operation of a Bored Tunnel Extension alternative to the DCO Scheme, with a tunnel portal outside the WHS at chainage 6+150, c. 80m west of the western boundary of the WHS. It also sets out the key design differences between the Bored Tunnel Extension alternative and the DCO Scheme.

The Appraisal follows the requirements for a DMRB Simple Assessment, in accordance with DMRB LA 101 - Introduction to environmental assessment (Highways England 2019) and DMRB LA 104 - Environmental assessment and monitoring (Highways England 2020c). It has beenundertaken as a theoretical exercise in order to provide sufficient information on which the Secretary of State for Transport can make their decision regarding redetermination of National Highways' Application for a Development Consent Order (DCO).

This Appraisal report details the assessment work undertaken and methods used. The impacts and resulting effects on individual cultural heritage assets from temporary construction activities, and the permanent construction and operation of the alternative are described and discussed.

Compared to the DCO Scheme, the Bored Tunnel Extension alternative offers potential additional benefits for cultural heritage assets and Asset Groups. The longer bored tunnel would extend c. 80m beyond the western boundary of the World Heritage Site (WHS), helping to maintain the integrity and authenticity of the WHS, reducing severance, and reducing impacts on archaeological remains from the western approach cutting. The Bored Tunnel Extension would also further benefit, in comparison to the DCO Scheme, the physical, visual, topographical and landscape relationships between Asset Groups AG12 Winterbourne Stoke Crossroads Barrows, AG13 The Diamond Group and AG19 Normanton Down Barrows, along with other isolated and discrete barrows in the western part of the WHS that contribute to its Outstanding Universal Value.

In terms of the Outstanding Universal Value (OUV), Integrity and Authenticity of the WHS as a whole, the Bored Tunnel Extension alternative would result in a Moderate beneficial effect on the OUV of the WHS, compared to a Slight beneficial effect for the DCO Scheme.

1 Introduction

1.1 Introduction

1.1.1 This report sets out an Environmental Appraisal (DMRB Simple Assessment – Heritage Only) (the 'Appraisal') of a **Bored Tunnel Extension** alternative to the DCO Scheme. It considers the impacts of this alternative and the likely significant and non-significant effects that would result from it in terms of temporary construction, permanent construction and the operation of the alternative and compares these against the effects assessed for the DCO Scheme, where relevant.

1.2 Reasons for this Appraisal

1.2.1 In July 2021, a legal challenge against the decision to grant consent for the A303 Amesbury to Berwick Down Scheme past Stonehenge was upheld in the High Court and consequently the DCO granted in November 2020 by the Secretary of State for Transport was quashed. One of the two grounds of challenge upheld was that the Secretary of State was legally obliged to consider the merits of alternatives to the proposed western cutting within the WHS (Ground 5(iii); [2021] EWHC 2161).

1.2.2 This Appraisal report has been prepared to inform the Secretary of State with regards to the likely impacts and significant effects on individual heritage assets that would result from the construction and operation of a single theoretical alternative to the DCO Scheme comprising a Bored Tunnel Extension with a tunnel portal at chainage 6+150, c. 80m west of the western boundary of the WHS. The bored tunnel length would be c. 4,250m, with c. 85m of cut and cover to the eastern portal; the total tunnel length would be c. 4,335m.

1.2.3 This Bored Tunnel Extension alternative has been developed to a preliminary design stage only, as the basis for appraisal of the heritage impact and likely significant and non-significant effects. This preliminary design does not include drainage or landscape mitigation information. For this reason, this Appraisal is undertaken as a theoretical exercise in order to provide sufficient information on which the Secretary of State for Transport can make their decision.

1.3 Relationship to other documents

1.3.1 To avoid unnecessary duplication this report signposts and cross-references sections of the DCO Scheme Environmental Statement (ES) Chapter 6 Cultural Heritage (described as the 'Main EIA' in this document) (Highways England 2018a), the Heritage Impact Assessment (HIA) for the DCO Scheme (described as the 'Main HIA' in this document) (Highways England 2018b), the subsequent ES and HIA Addenda (Highways England 2020a & 2020b), and the Response to the Statement of Matters (National Highways 2022a, 2022b, 2022c & 2022d) [Redetermination-1.1, -1.2, -1.4 and -1.5 respectively], as appropriate.

1.3.2 This Appraisal report sets out the assessment work undertaken and identifies the likely impacts and significant effects on individual heritage assets from the construction and operation of the Bored Tunnel Extension alternative. The Appraisal follows the requirements for a DMRB Simple Assessment, in accordance with DMRB LA 101 - Introduction to environmental assessment (Highways England 2019) and DMRB LA 104 - Environmental assessment and monitoring (Highways England 2020c). Simple assessment comprises the collection and assessment of data and information that is readily available to reach an understanding of the likely environmental effects of a project, and is undertaken in accordance with the methodology and reporting requirements set out in LA 104.

1.3.3 The Appraisal methodology is set out in section 3 (below) of this report.

1.4 Competent expert evidence

1.4.1 This Appraisal has been undertaken by competent experts with relevant and appropriate experience. The technical lead for the Appraisal is Neil Macnab; his professional qualifications and experience are summarised in 6.3 Environmental Statement Appendix 1.1: Competent Expert Table (Highways England 2018c).

2 Legislation and Policy Framework

2.1 Introduction

2.1.1 Applicable legislation and policy are as set out in the ES and its relevant appendices and annexes (see Main EIA (Highways England 2018a), Main HIA (Highways England 2018b), Main HIA Annex 1 (Highways England 2018d), the EIA and HIA Addenda (Highways England 2020a and 2020b) and the Response to Bullet Point Four – Environmental Information Review (National Highways 2022c) [Re-determination Document 1.4]. These are not repeated here unless it would assist this Appraisal to reiterate key requirements.

2.2 National planning policy

National Policy Statement for National Networks (NPSNN; 'the NPS')

2.2.1 Table 6.1 of the Main EIA (Highways England 2018a) identifies the NPS policies relevant to the cultural heritage assessment and where in the Main EIA information is provided to address the policy. Table 6.1 of the Main EIA remains relevant and complete (Main ES paragraph 6.2.1).

National Planning Policy Framework (NPPF)

2.2.2 The NPPF was revised in February 2019 and July 2021. The 2019 revision made minor changes to wording and presentation (for example, providing clarifications as footnotes), but introduced no substantive changes. The revision of 20 July 2021 (MHCLG, 2021) introduces new paragraph 198 concerning the removal or alteration of historic statues, plaques, memorials and monuments. NPPF Chapter 16, Conserving and enhancing the historic environment, is otherwise unchanged.

2.2.3 The requirements of the NPPF which relate to the cultural heritage assessment have not substantively changed since publication of the Main EIA in 2018; the NPSNN (above) remains the primary source of policy guidance.

2.3 National planning guidance

National Planning Practice Guidance (PPG)

2.3.1 A revised version of the section of the national Planning Practice Guidance (PPG) relating to Historic Environment was published on 23 July 2019 (MHCLG, 2019). The revised PPG does not alter the application of the equivalent tests required under the NPSNN.

Historic Environment Good Practice Advice in Planning Note 2 (GPA2) and Note 3 (GPA3)

2.3.2 GPA2 'Managing Significance in Decision Taking in the Historic Environment' (Historic England, 2015) and GPA3 'The Setting of Heritage Assets' (Historic England, 2017) are unchanged since publication of the Main EIA in 2018.

2.4 Local planning policy

2.4.1 The adopted development plan for Wiltshire comprises the Wiltshire Core Strategy incorporating saved policies from the district local plans and this position has not changed since the DCO application was submitted. There has been a consultation to inform the Wiltshire Local Plan Review (13 January 2021 to 09 March 2021), but this is in the early stages of plan preparation and therefore carries little weight. Therefore, the local planning policy context has not changed since the DCO application of October 2018 or the making of the DCO in November 2020 (see Response to Bullet Point 2 – Policy (National Highways 2022b).

2.5 Stonehenge, Avebury and Associated Sites World Heritage Site (WHS) Management Plan

2.5.1 The Stonehenge, Avebury and Associated Sites WHS Management Plan policies form the framework for the protection of the WHS and its OUV (Simmonds & Thomas, 2015) (Main HIA, paragraph 4.1.5). A review of the current WHS Management Plan 2015-2021 ('the 2015 Management Plan') is underway, with a new management plan anticipated to be in place by April 2023. In the meantime, the 2015 Management Plan and associated documents remain as reviewed for the Main EIA (Highways England 2018a) and Main HIA (Highways England 2018b).

3 Appraisal Methodology

3.1 Method

3.1.1 As noted in paragraph 1.1.6 above, this Appraisal follows the requirements for a DMRB Simple assessment. In accordance with DMRB LA 101-Introduction to environmental assessment (Highways England 2019), the Simple assessment has been undertaken in accordance with the methodology and reporting requirements set out in LA 104 Environmental assessment and monitoring (Highways England 2020c). The methodological approach utilised in this Appraisal therefore follows that of the Main ES Chapter 6 (Highways England 2018a), comprising:

a) Guidance [Main EIA, paragraphs 6.3.4 - 6.3.5] (Highways England 2018a);

b) Baseline Data Sources [Main EIA, paragraphs 6.3.6 - 6.3.8] (Highways England 2018a);

c) Methodology for determining effects [Main EIA, paragraphs 6.3.9 - 6.3.11] (Highways England 2018a);

d) Value Criteria [Main EIA, paragraphs 6.3.12 - 6.3.17, including Table 6.2] (Highways England 2018a);

e) Magnitude of impact [Main EIA, paragraphs 6.3.18 - 6.3.22, including Tables 6.3, 6.4 and 6.5] (Highways England 2018a);

f) Significance of effect [Main EIA, paragraphs 6.3.23 - 6.3.24, including Table 6.6] (Highways England 2018a);

g) Assessment of setting of heritage assets [Main EIA, paragraphs 6.3.25 - 6.3.28] (Highways England 2018a); and

h) Assessment of harm to designated heritage assets [Main EIA, paragraphs 6.3.29] (Highways England 2018a).

3.1.2 The above-mentioned guidance and methodological approach are reviewed in Section 3.2 of Redetermination-1.4 – Environmental Information Review (EIR) (National Highways 2022c). The legislative and policy framework, assessment methodology and environmental baseline on which the 2018 ES (in particular, Chapter 6 and the accompanying HIA (2018 ES Appendix 6.1 [APP-195])) were based, were reviewed against revised and updated guidance and archaeological discoveries and publications brought to light since 2018. The review concluded that the 2018 ES (including the HIA) and related environmental information remain consistent with the legislative and policy framework and assessment guidance.

3.2 Assessment assumptions and limitations for the Bored Tunnel Extension alternative

3.2.1 The following assumptions and limitations apply:

Data used in this assessment derive from the Main EIA; therefore, the assumptions and limitations of the Main EIA also apply, with the following updates:

i. The NHLE[1] data used for the present assessment was that available to download in December 2021. The WSHER[2] data used was provided in December 2021. Any subsequent changes to these datasets have not been captured by this assessment.

ii. This assessment includes new WSHER reference numbers generated following the registration of the results of evaluation fieldwork for the scheme in the WSHER.

The Bored Tunnel Extension alternative design has not been developed to the same level of outline design as the DCO Scheme.

3.2.2 This Appraisal is therefore based on a series of design assumptions, as set out in Table 1 below:

Table 1. Comparison of design assumptions for DCO Scheme and Bored Tunnel Extension alternative

DCO Scheme	Bored Tunnel Extension Alternative
Western tunnel approaches in retained cutting to west of, and within western part of the WHS. Cutting varies in depth between approximately 7m and 10m. The top approximately 2.5m of the cutting would have approximately 1 in 2 grassed slopes. The bottom of the cutting would comprise vertical retaining walls. Green bridge c.150m in length between c.150m and 300m from the western WHS boundary i.e. from chainage 6+415 to 6+565. Start of the cut and cover tunnel portal within the WHS at chainage 7+200. The cut and cover section is 200m long and the bored tunnel commences at chainage 7+400. The Limits of Deviation allow for the bored tunnel and/or the cut and cover tunnel to be extended up to 200m westwards and reduced by a nominal 1m eastwards.	Bored tunnel portal outside the WHS at chainage 6+150, c. 80m west of the western boundary of the WHS. Western approach cutting wider and deeper to accommodate bored tunnel portal. Tunnel service buildings (TSB) relocated to immediately outside the tunnel portal on the north side of the proposed A303.
At the eastern portal, the Bored Tunnel Extension alternative retains the layout proposed for the DCO Scheme: the bored tunnel terminates at chainage 10+400 and an 85m cut and cover length puts the eastern portal at chainage 10+485. Limits of Deviation for the eastern portal allow for the bored tunnel and/or its cut and cover tunnel to be extended up to 30m eastwards and reduced by a nominal 1m westwards.	

[1] National Heritage List for England
[2] Wiltshire and Swindon Historic Environment Record

Longbarrow Junction, a new grade separated junction with the A360 is proposed c.570m to the west of the WHS boundary. Removal of Longbarrow Roundabout within the WHS and elements of the A360.	Relocation of Longbarrow Junction to provide a new skewed dumbbell junction located c.1,340m west of the western boundary of the WHS. Removal of Longbarrow Roundabout within the WHS and elements of the A360.
The junction would not have street lighting but both roundabouts would be signal controlled (i.e. traffic lights).	The two junction roundabouts and the link road between them would be lit.The A360/A303 roundabout would not have street lighting but would be signal controlled.
New A360 northern and southern link roads, moved west from the WHS boundary.	Reconfigured A360 link road roundabout, located c.530m west of the western boundary of the WHS on Oatlands Hill. Reconfigured A360 northern and southern link roads, on similar alignment to the DCO Scheme, with additional green bridge required to cross the tunnel approach cutting.
The tunnel would be c. 3,285m long constructed as follows: From western portal c. 200m of cut and cover. Central c. 3,000m of twin bored tunnel. c. 85m of cut and cover to the eastern portal.	The tunnel would be c. 4,335m long constructed as follows: From western portal c. 4,250m of twin bored tunnel. c. 85m of cut and cover to the eastern portal.

3.2.3 Further assumptions are as follows:

a) The alignment of the road within the WHS for the Bored Tunnel Extension alternative would follow that of the DCO Scheme.

b) The Bored Tunnel Extension would not require ventilation shafts or ancillary infrastructure within the WHS.

c) The Bored Tunnel Extension would avoid the need for drainage infiltration features within the WHS and that these could be located outside the WHS.

d) Land above the Bored Tunnel Extension would be returned to agricultural use, in accordance with the Adopted Wiltshire Core Strategy Development Plan 2015 – 2026 (Wiltshire Council 2015).

e) Regarding air quality and construction noise, impacts within the WHS during the construction of the Bored Tunnel Extension alternative would be limited to the Eastern tunnel portal, its approaches and the Countess junction improvements.

f) During operation of the Bored Tunnel Extension alternative, air quality impacts associated with the extended tunnel and the A360 western re-alignment are anticipated to be comparable to that of the DCO Scheme. Compared to the DCO Scheme, the longer tunnel provided by the Bored Tunnel Extension would extend the area shielded from traffic noise and be beneficial for users of the affected area of the WHS.

g) Lighting at the tunnel portal would be hooded and directional to minimise light spill.

h) The content of this Appraisal is dependent upon the preliminary design for the Bored Tunnel Extension as available at the time of writing (July 2022).

i) The current preliminary design for the Bored Tunnel Extension does not include landscape or drainage design and therefore this Appraisal does not include assessment of these elements. Consequently, impacts and effects assessed in this Appraisal could potentially be removed, reduced or offset through design mitigation measures forming part of the landscape and/or drainage designs.

j) The design of the Bored Tunnel Extension alternative has not been developed to the same level as that for the DCO Scheme. The level of assessment in the Appraisal, therefore, is not equivalent to the full environmental impact assessment undertaken for the DCO Scheme. The information provided here and previously in the environmental information is considered to be sufficient for the Secretary of State to make a robust decision on alternatives to the DCO Scheme.

k) Applicable mitigation committed to in the environmental information for the DCO Scheme would be applied to the Bored Tunnel Extension as appropriate, including implementation of relevant measures detailed in the Outline Environmental Management Plan (OEMP) and the Detailed Archaeological Mitigation Strategy (DAMS). The Appraisal also assumes that where bespoke mitigation for the Bored Tunnel Extension would be required, this would be provided to the same level as the DCO Scheme.

l) A WHS Setting Study has been commissioned by the WHS Coordination Unit, publication of which is not expected until 2023. This report excludes any consideration of this work as the results are not yet available.

3.3 Referencing and illustrations

3.3.1 Heritage assets in the area of the Bored Tunnel Extension are illustrated on Figures 3 to 5. Each asset has been assigned a project-specific unique identity number (UID), as set out in the Main EIA [Main EIA, paragraph 6.6.56] (Highways England 2018a). Unique ID numbers (i.e. UID 7001 – 7115) have also been assigned to additional archaeological sites and features added to the WSHER since the submission of the Main EIA in the DCO Examination (Highways England 2018a). These are listed in Redetermination-2.1 Archaeological Gazetteer (UID 7001 – 7100) (National Highways 2022e) and in Redetermination-4.1 (UID 7101 – 7115).

3.3.2 Reference is also made to Asset Groups (Figure 6); the rationale for the definition of Asset Groups is set out in the Main EIA [paragraphs 6.6.59 – 6.6.61 and 6.6.63 – 6.6.66] (Highways England 2018a) and the Main HIA [Asset Groups and discrete assets,paragraphs 5.10.6 – 5.10.33] (Highways England 2018a). Asset Groups are described in the Main EIA [Scheme

Narrative, paragraphs 6.6.80 – 6.6.111] (Highways England 2018a) alongside discrete and isolated assets. A review of the Asset Groups in light of the new Historic Environment Record (HER) data confirmed that:

i. No change is necessary to the definition of the relevant Asset Groups to reflect the new HER data; and

ii. there is no change to the significance of any of the relevant Asset Groups, the impact of the DCO Scheme on those Asset Groups, or the significance of effect as assessed in the 2018 ES or HIA or the 2020 ES and HIA Addenda arising from the identification in the new HER data of these additional features.

3.3.3 The archaeological baseline is described in the Main EIA, Appendix 6.2 – Archaeology Baseline Report (Highways England 2018f). Known archaeological assets are tabulated in the Main EIA, Appendix 6.3 – Gazetteer of Archaeological Assets (Highways England 2018g) and the Asset Groups are tabulated in the Main EIA, Appendix 6.7 – Gazetteer of Asset Groups (Highways England 2018h). Updates to the cultural heritage baseline are described in National Highways 2022c [Redetermination-1.4], section 3.3; and in National Highways 2022e [Redetermination-2.1], Archaeological Gazetteer. (see Section 5 of this Appraisal). The contribution that setting makes to the significance of heritage assets is considered in relation to Asset Groups and discrete heritage assets and built heritage assets affected by the DCO Scheme in the Main EIA Appendix 6.9 – Cultural Heritage Setting Assessment (Highways England 2018i).

3.3.4 The Zone of Theoretical Visibility (ZTV) as updated to take account of the Bored Tunnel Extension alternative is presented on Figure 7. The locations of viewpoints are mapped on Figure 8, and viewpoint photomontages are shown on Figures 9.1- 9.3.

3.3.5 Three representative viewpoints have been selected to be rendered as accurate visual representations (photomontages), to convey the visual context of the study area and likely views of the Bored Tunnel Extension. These viewpoints adopted for this Appraisal were specifically selected to provide information about the potential impacts of the Scheme upon key heritage assets. These add to previously-prepared photomontages illustrating the existing A303 and DCO Scheme. These views are focussed on close and middle distance views to, from and between heritage receptors. The method for preparation of photomontages is set out in Appendix 7.11 – Visually verifiable montage methodology in the Main ES (Highways England 2018l): changes to guidance for preparation of VVM since 2018 do not affect the validity of the photomontages previously prepared for the DCO Application (National Highways 2022c [Redetermination-1.4], paragraphs 3.2.19 to 3.2.25).

Table 2. Viewpoint graphics

Alternative Viewpoint ID	Original DCO scheme ID	Alternative visualisation/model/cross-section direction & purpose:	From Easting	From Northing	To Easting	To Northing
ALT-01	Setting Assessment Viewpoint CH03 Photomontage (Highways England 2018e)	Views (existing A303, DCO Scheme and Bored Tunnel Extension) looking south-west from the north-eastern end of the long barrow at AG12 Winterbourne Stoke Crossroads Barrows towards existing A303/A360 roundabout, the DCO Scheme and the Bored Tunnel Extension arrangement of the Oatlands Hill link road and slip road (NHLE 1011841).	409992	141495	409039	140224
ALT-02	LVIA Figure 7.101 Photomontage (Highways England 2019c)	Views (existing A303, DCO Scheme and Bored Tunnel Extension) from the location of the eastern edge of DCO Scheme Green Bridge 4 looking east, showing western approach cutting leading to the DCO Scheme western portal location.	410268	141386.5	411795	141822
ALT-03	Setting Assessment Viewpoint CH10 Photomontage (Highways England 2018e)	Views (existing A303, DCO Scheme and Bored Tunnel Extension) looking west-south-west from long barrow NHLE 1008953 within AG19 Normanton Down Barrows. The existing view includes the A303, with the Sun Barrow (NHLE 1012370) as a prominent element to the south of the present road. This viewpoint is directly on the line of the DCO Scheme tunnel and looks down its alignment towards the western portal (450m distant), the canopy and approach road. For the Bored Tunnel Extension alternative, it captures the absence of any cutting or green bridge in views from AG19 Normanton Down Barrows towards AG13 The Diamond and AG12 Winterbourne Stoke Crossroads Barrows.	411541	141751	409533	141262

4 Study Area

4.1 Appraisal Study Area

4.1.1 The study area (Figure 1) for this Appraisal of the Bored Tunnel Extension alternative replicates that of the Main EIA, as the land take for the alternative sits within that of the DCO Scheme, namely:

a) '500m study area'. This is the principal area of data-gathering, comprising a corridor extending 500m from the Scheme boundary, between the River Till to the west and Normanton Down to the east. It focuses on the area of the proposed alternative alongside its immediate environs. A full suite of desk-based data has been gathered for this area, relating to both designated and non-designated assets, supported by the comprehensive suite of archaeological evaluations undertaken for the DCO Scheme.

b) A flexible approach has been taken to the identification of high-value assets on which there may be an impact upon setting, up to 2km beyond the DCO Scheme boundary. This has been guided by the DCO Scheme's ZTV established by the Landscape and Visual Impact Assessment, but also considers physical and historical connectivity between heritage assets, together with the potential impacts of the Scheme, including changes to noise levels, air quality and traffic volume and flow. For ease of reference, this is referred to as the '2km study area'.

4.1.2 The purpose of the study areas was for data capture, encompassing all heritage assets, both designated and non-designated, including archaeological sites and monuments, historic buildings, conservation areas and registered parks and gardens. All of the captured data have been reviewed, with those assets potentially affected by the alternative being taken forward into the impact assessment.

5 Baseline Conditions

5.1 Introduction

5.1.1 Baseline conditions are set out in the Main EIA (Highways England 2018a, section 6.6). The baseline reports and gazetteers for archaeological remains, historic buildings and historic landscape are presented in the following Main EIA appendices:

a) Appendix 6.2 Archaeology baseline report (Highways England 2018f);

b) Appendix 6.3 Gazetteer of archaeological assets (Highways England 2018g);

c) Appendix 6.4 Historic buildings baseline report (Highways England 2018m);

d) Appendix 6.5 Gazetteer of historic buildings (Highways England 2018j); and

e) Appendix 6.6 Historic landscape baseline report and gazetteer (Highways England 2018k).

5.1.2 Minor errors were subsequently identified, and corrections provided for clarification in relation to the Main HIA (Highways England 2018b) and Archaeological Gazetteer (Highways England 2018g) in an Errata Report (Highways England 2019) submitted to the Examination.

5.1.3 The Detailed Archaeological Mitigation Strategy (DAMS) also provides an overview of the evaluation fieldwork undertaken for the DCO Scheme and describes the archaeological resource in the vicinity of the Scheme (for the latest iteration of the DAMS, see Highways England 2020d, sections 3.2 and 3.3).

5.1.4 Following publication of a 'new discovery' by the Stonehenge Hidden Landscapes Project in June 2020, an ES Addendum (Highways England 2020a) and HIA Addendum (Highways England 2020b) were submitted to the Secretary of State in August 2020. These Addenda added to and supplemented the baseline information (see Highways England 2020a, paras 4.2.1 to 4.2.15; see Highways England 2020b, paras 3.2.1 to 3.2.15).

5.1.5 The HER data used in compiling the baseline information for the Main EIA and HIA was provided on 15 March 2018. An updated dataset was provided on 10 December 2021 and compared against the Main EIA 2018 dataset to identify additions to the HER database since compilation of the baseline information. The new heritage assets in the baseline and the new beneficial significant effects constitute further environmental information (see National Highways 2022c [Redetermination-1.4], paras 3.3.4 to 3.3.11; and 2022e [Redetermination-2.1]) for consideration by the Secretary of State in his redetermination. The baseline information, contained within the Main EIA and Main HIA, and in the EIA and HIA Addenda, remains otherwise comprehensive, and the cultural heritage assessment for the DCO Scheme is otherwise not altered.

5.2 Overview of Heritage Assets in the vicinity of the Bored Tunnel Extension alternative

5.2.1 The footprint of the Bored Tunnel Extension alternative is contained within the DCO Scheme boundary, excepting two very small areas at the relocated Longbarrow Junction. Sections of the alternative that differ in design from the DCO Scheme are located within the western part of the WHS and beyond its western boundary, between the River Till, in the west, and Normanton Down, in the east. This section identifies the principal heritage assets in this area.

5.2.2 The Winterbourne Stoke Crossroads Barrows (Asset Group 12 (AG12)), including its Neolithic long barrow and the associated round barrows, are located to the north of the Bored Tunnel Extension alignment, whilst the

Diamond Group (AG13) is located to the south. Both monument groups lie outside the footprint of the Bored Tunnel Extension. Late Bronze Age settlement evidence is focused around the existing Longbarrow Roundabout along with a partly scheduled later prehistoric land boundary (Wessex linear) and field systems.

5.2.3 In the western part of the WHS the alignment of the Bored Tunnel Extension passes through an area where surveys indicate that there is limited archaeological survival. There are substantial groups of known monuments in the surrounding landscape including AG12 and AG13 (as mentioned above), whilst to the east lies the Normanton Down Barrows (AG19). South and east of the Bored Tunnel Extension alignment lies a group of isolated and discrete barrows and features, including a scheduled late prehistoric linear boundary (Wessex linear) and the Wilsford Shaft, whilst to the north, west and east of AG12 lie further isolated and discrete barrows on Winterbourne Stoke Down.

5.2.4 To the west of the WHS boundary lie a number of further Scheduled Monuments including further barrow groups (Winterbourne Stoke West (AG03), Winterbourne Stoke East (AG04) and the non-designated Winterbourne Stoke Hill ring ditches (AG05), none of which are considered to contribute to the Outstanding Universal Value of the WHS. In this area there is also a scheduled Roman settlement site (AG07), further non-designated late Bronze Age field systems boundaries and enclosures and an Iron Age settlement on Oatlands Hill (AG09).

5.3 Fieldwork undertaken in the study area

5.3.1 A comprehensive programme of archaeological evaluation fieldwork was undertaken in 2018 to inform the assessment of the DCO Scheme, both inside and outside the WHS. The scope of the field work programme within the WHS was developed in consultation with HMAG and the Scientific Committee to reflect approaches employed by current academic research projects in the WHS. Outside the WHS, a similarly detailed approach was also employed to ensure a consistent approach across the DCO Scheme.

5.3.2 The fieldwork programme included detailed geophysical survey, surface artefact collection procedures including test pitting with accompanying sieving and sieving of samples of the topsoil from intrusive trial trenching, as well as extensive trial trenching of the DCO Scheme main line footprint and land take for landscaping and excavated material deposition (for full reports see REP1-041 to REP1-056 in the Planning Inspectorate's Document Library for the DCO Scheme). This provides a robust baseline against which to assess the impact of the alternative.

Area to the south-west of the current Longbarrow Roundabout

5.3.3 The evaluation in this area for the DCO Scheme confirmed the presence of discrete areas of activity including possible Late Neolithic pits and ditches and associated flint scatters along the realigned A360 north (UID 2144), scattered Early Bronze Age pits, a Late Bronze Age C-shaped enclosure and associated activity (UID 2072/7106) and a possible Early Bronze Age

enclosure (UID 2167/7107) at the southern end of the realigned A360 south, along with scattered Early Bronze Age pits. The survival of parts of extensive later prehistoric (Late Bronze Age onwards) land divisions (Wessex linears – for example UID 2014.02; 2048 and 2068) were also confirmed.

Western Portal and Approaches

5.3.4 The archaeological evaluation in this area for the DCO Scheme has confirmed the results of geophysical survey and previous fieldwork. The only ceremonial or funerary monument identified was a small hengiform monument (UID 2177/7092) observed in geophysical surveys; this lay just to the south of the existing A303. Funerary evidence comprised a single isolated Beaker crouched burial and a neonate burial (both completely excavated and removed during the evaluation), both of which lay outside and to the north of the new road alignment. Evidence for settlement activity was confined to artefactual material in the ploughzone and several isolated Bronze Age pits (UID 2088). Although some concentrations of worked flint material in the plough zone were apparent within the evaluation area, these did not appear to correlate to surviving features below the surface of the agricultural fields.

5.4 Current baseline

500m study area

5.4.1 A single baseline has been collated from all sources. Each asset has been assigned a project-specific unique identity number (UID) (see 3.1.6 above; and the Main EIA, Highways England 2018a, paras 6.6.56 to 6.6.57).

Assets beyond 500m study area but within 2km study area

5.4.2 These designated assets have not been assigned a project-specific UID, as this was not practical, given the large numbers of assets. Within this report, as in the Main EIA, these are referred to by their NHLE entry number.

Asset Groups

5.4.3 For the purposes of baseline assessment and assessment of impacts on the setting of heritage assets, this Appraisal refers to a range of Asset Groups as identified in the Main EIA, paragraphs 6.6.59 – 6.6.61 and 6.6.63 – 6.6.66 (Highways England 2018b) and the Main HIA [Asset Groups and discrete assets, paragraphs 5.10.6 – 5.10.33, including the rationale for the definition of Asset Groups] (Highways England 2018a). Asset groups have been determined on the basis of location (e.g. proximity and topography), period, and interrelationships (e.g. inter-visibility and grouping). The use of groupings, to reflect the disposition and significance of monuments within the WHS and wider landscape, is an established approach shared by the Heritage Impact Assessment.

5.4.4 The definition of Asset Groups was guided by previous assessment work related to developments within the WHS (see Main EIA, Highways England 2018a, paras 6.6.59 to 6.6.66).

5.4.5 Asset Groups are illustrated on Figure 6.

Stonehenge, Avebury and Associated Sites World Heritage Site

5.4.6 The Stonehenge, Avebury and Associated Sites WHS, described in detail in the Main HIA (Highways England 2018b), is internationally important for its complexes of outstanding prehistoric monuments. Attributes of OUV are ultimately derived from the 2008 Statement of Significance and the nomination and evaluation documentation of 1985/6. The 2015 Management Plan explains the seven Attributes of OUV for the entirety of the WHS in more detail (see Main EIA, Highways England 2018a, paras 6.6.68 to 6.6.69).

Scheduled monuments

5.4.7 The scheduled monuments within the 500m and 2km study areas span prehistory to the post-medieval era. There is a strong numerical bias towards monuments and features of Neolithic and/or Bronze Age date, particularly within the WHS. These include funerary and ritual monuments (for example, extensive barrow cemeteries such as AG12 Winterbourne Stoke Crossroads Barrows, AG13 Diamond Group and AG19 Normanton Down Barrows which also include other monuments such as hengiform enclosures) as well as later, non-OUV related, field systems (for example (NHLE 1010837 and 1010838). There is only one scheduled site of specifically Roman date within the 500m study area, this being the settlement on Winterbourne Stoke Down (NHLE 1015222). Scheduled medieval sites are absent from the study area.

5.4.8 Scheduled monuments are illustrated on Figure 3.

Listed buildings

5.4.9 Listed buildings comprise those within 1km of the DCO Scheme boundary. In keeping with the Main EIA, an original search area of 2km was adopted for listed buildings (i.e. the 2km study area), this was then narrowed following a review of the assets in detail and the ZTV.

5.4.10 The listed buildings within the study areas span the medieval to modern periods, including the Grade II* listed Manor House (NHLE 1130971), Winterbourne Stoke. Many of the Grade II listed buildings within the 500m study area are associated with the historic village of Winterbourne Stoke and are situated within its Conservation Area (UID 6015). There are also a number of listed milestones (for example NHLE 1130972 and 1130999) on modern roads that had their origins as historic turnpikes.

5.4.11 Listed buildings are shown on Figure 4.

Registered parks and gardens

5.4.12 There are no registered parks or gardens within 1km of the Scheme boundary in the area to be assessed for the alternative.

Conservation area

5.4.13 Within 1km of the Scheme boundary there is one conservation area: Winterbourne Stoke (UID 6015) (shown on Figure 4). Three more are within the 2km study area for the alternative, including Berwick St James, Lake, and Wilsford, but these are too distant to be impacted.

Non-designated assets

5.4.14 The WSHER contains numerous individual records within or intersecting the 500m study area (as set out in Appendix 6.3 Gazetteer of Archaeological Assets, for the Main EIA), some of which are duplicates of designated assets contained within the NHLE.

5.4.15 A minority of these heritage assets are non-designated historic buildings (shown on Figure 4), but most are archaeological in character consisting of buried archaeological remains. They include settlements, barrows, linear boundaries, field systems and former First and Second World War military complexes. The remains date from the Neolithic period through to the modern era. These are shown on Figure 5.

Historic landscape characterisation

5.4.16 The Bored Tunnel Extension alternative crosses a number of historic landscape character areas defined as modern reorganised fields and prairie fields in the Wiltshire and Swindon Historic Landscape Characterisation project (WSHLC).

Scheme narrative

5.4.17 The full scheme narrative describing the cultural heritage assets in the study area between the River Till to the west and Normanton Down to the east is provided in the Main EIA (Highways England 2018a, paras 6.6.88 to 6.6.100).

5.5 Future baseline

5.5.1 The delay to the DCO Scheme resulting in the change of the construction phase and operational phase start dates (to 2023 and 2029 respectively) does not alter the conclusions relating to the future baseline in the 2018 ES with regards to cultural heritage (see Response to Bullet Point 4, Environmental Information Review – Highways England 2022c, para 3.3.17).

6 Description of the Bored Tunnel Extension alternative

6.1 Background to the Bored Tunnel Extension alternative

6.1.1 The horizontal alignment of the A303 for the Bored Tunnel Extension alternative would be identical to the DCO Scheme. All highway cross-section widths and the structural form of the tunnel, the portals and green bridges would be as per the DCO Scheme.

6.1.2 From the A303 western tie-in, south of Yarnbury Castle, up to and including the River Till Viaduct, the Bored Tunnel Extension alternative would be identical to the DCO Scheme. The eastern portal, Countess junction and the eastern tie in to the A303, north of Amesbury, would also be identical to the DCO Scheme.

6.1.3 The western section for the Bored Tunnel Extension alternative has not been designed to the same level of detail as the DCO Scheme, but the main differences would include:

a) Less extensive landscaping to suit the reduced volume of excavated chalk from the tunnel approach cutting.

b) Redesigned signs, signals, laybys and associated roadside furniture.

6.2 Bored Tunnel Extension to chainage 6+150

Layout

6.2.1 The bored tunnel would be extended westward in comparison to the DCO Scheme, with the western portal located c. 80m beyond the WHS boundary. The A360 would be diverted, up to 570m to the west, to pass over the realigned A303 on a bridge located not less than 450m west of the tunnel portal, in a similar location to Green Bridge 3 in the DCO Scheme. The new Longbarrow junction would take the form of a skewed dumbbell junction located in the valley north of the existing A303 and to the east of Winterbourne Stoke. The southern roundabout of the dumbbell would be connected by a new link road to a third roundabout positioned on the diverted A360. Another link from the southern roundabout of the dumbbell would tie into the existing road to Winterbourne Stoke.

Plate 1. Bored Tunnel Extension Layout

Bored Tunnel Extension

6.2.2 The eastern end of the tunnel would remain as proposed for the DCO Scheme. At the western end, the bored tunnel would be extended to c. 80m beyond the WHS boundary (i.e. to chainage 6+150). There would be no cut and cover tunnel section at the western portal. The total tunnel length would be c. 4,335m, comprising c. 4,250m of twin bored tunnel with c. 85m of cut and cover tunnel at the eastern portal.

6.2.3 The details of the tunnel service buildings (TSB) at the eastern and western portals would be as per the DCO Scheme, built into the retained cutting immediately outside the tunnel portals.

6.2.4 The horizontal alignment and the cross section of the extended twin bored tunnel would be as per the DCO Scheme. Vertical alignment within the tunnel has not been confirmed within the preliminary design, but a longer tunnel would result in the low point of the tunnel being deeper than for the DCO Scheme. The minimum depth to crown (depth to the top of the tunnel bore) would be within the Limits of Deviation of the DCO Scheme.

A303 Mainline

6.2.5 The Mainline horizontal alignment of the new A303 would be retained as per the DCO Scheme, but the vertical alignment would change to suit the tunnel extension. At the western end of the tunnel, the A303 finished road level would need to be at least 15m below existing ground level. This is to protect against ground disturbance during tunnel boring.

6.2.6 The approach cut would remain over 10m deep for the first 600m west of the tunnel portal, before emerging into the head of a dry valley where the

ground level drops to meet the rising road levels. At about the same location, the vertical alignment of the A303 would have risen to the level as proposed in the DCO Scheme.

New Longbarrow Junction

6.2.7 The form of the new Longbarrow junction would be a skewed dumbbell junction comprising two roundabouts connected by a link road over the A303. Two sliproads at each roundabout would provide for all turning movements on and off the A303. The link road between the dumbbell roundabouts would be a dual carriageway crossing over the A303 at about chainage 4+900. The roundabouts and the link road between them would have street lighting mounted on posts 8m high.

6.2.8 The A360 would be diverted up to 570m to the west to pass over the realigned A303 on a bridge located not less than 450m west of the tunnel portal. Tie-in points to the existing A360 would be as per the DCO Scheme. Most of the length of this diversion would be in a shallow cut, 2m to 3m deep.

6.2.9 A third roundabout would be required to provide access between the A360 and Longbarrow junction. This roundabout would be located south of the tunnel, in the same location as the Longbarrow junction southern dumbbell proposed in the DCO Scheme. It would be contained within a 2m deep cut. No street lighting is proposed on the A360, or on this roundabout, as it would be visible from the WHS. To mitigate the absence of lighting it is proposed that this roundabout would be signal controlled.

6.2.10 Vehicular access to the village of Winterbourne Stoke would be via the existing A303, which would be downgraded and de-trunked. It would connect to the skewed Longbarrow junction via a 5th leg to the southern dumbbell roundabout.

Temporary Traffic Diversions

6.2.11 In order to build the Bored Tunnel Extension and new Longbarrow Junction, it would be necessary to divert the A303. Design of the diversions and the traffic management strategy will be dependent on the construction methodology and programme to be determined by the main works contractor. For the purposes of this Appraisal, the following construction sequence has been assumed:

- Stage 1: With traffic on existing A303 and existing A360 construct a temporary diversion for the A303 from the existing Longbarrow roundabout, around the north of the site for the proposed A360 bridge and tying back to the existing A303 to the south of the proposed new Longbarrow Junction. Include a temporary bridge to cross the route of the new A303.

- Stage 2: Retain the A360 on its existing route but divert the A303 onto the temporary diversion. Commence construction of the remainder of the

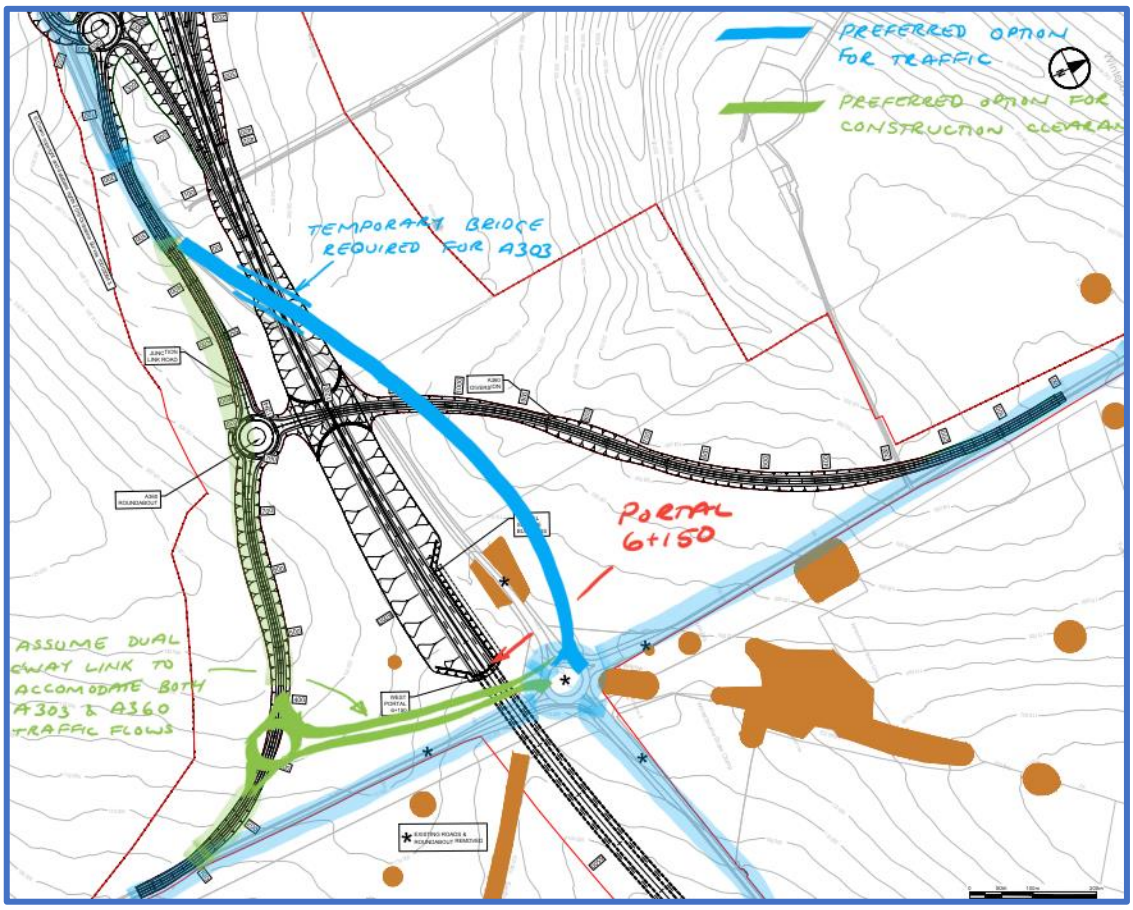
junction and of the tunnel. Some local diversions and Traffic management will be required at tie-ins.

- Stage 3: On completion of the new A360 bridge, divert the A303 traffic on to the new bridge and remove the temporary bridge. Continue construction of junction and tunnel.

- Stage 4: On completion of Longbarrow Junction and of Winterbourne Stoke Bypass, divert A303 traffic on to one carriageway of the bypass. The other carriageway would be kept as a construction route to compete the tunnel. At this stage all A303 traffic would remain diverted over the A360 bridge as at Stage 3.

- Stage 5: After opening of the tunnel, the A360 would be diverted onto its new alignment and the temporary diversion removed.

Plate 2. Temporary traffic diversions for the Bored Tunnel Extension



7 Mitigation

7.1 Mitigation strategy

The Detailed Archaeological Mitigation Strategy (DAMS) sets out the detailed strategy with regards to archaeological mitigation works for the DCO Scheme (see Highways England 2020d). The Outline Environmental Management Plan (OEMP) sets out the principles and procedures with regards to the management of the environment and environmental issues during the detailed design phase and for both the preliminary and main works elements of the construction of the DCO Scheme (Highways England 2020e). Both documents remain relevant with regards to the Bored Tunnel Extension.

7.2 Mitigation measures specific to the Bored Tunnel Extension

7.2.1 The Bored Tunnel Extension would require construction of the new skewed Longbarrow Junction to the east of Winterbourne Stoke Hill. This would require changes to the DAMS requirements for some Mitigation Action Areas here where archaeological mitigation would not be required under the DCO Scheme, including areas X10 and X11 (proposed contractors' working areas not requiring mitigation, see DAMS Appendix D.2), and area 15.9 (proposed preservation of archaeological remains in place beneath shallow landscape fill, see DAMS Appendix D.1). These areas would require archaeological mitigation works in advance of construction of the Bored Tunnel Extension alternative.

7.2.2 The A360 Link Road (North) and A360 Link Road (South) would be on a similar alignment to the DCO Scheme requiring similar archaeological investigation and recording in advance of construction as the DCO Scheme and as outlined in the DAMS (Highways England 2020d – Appendix D.1, Areas 16.1, 16.2, 16.4, 19, and 52.1 to 52.4).

7.2.3 The Western Portal would have a similar construction footprint to the eastern part of the proposed Longbarrow Junction in the DCO Scheme; some minor adjustments would be required to the extents of archaeological mitigation areas, particularly within areas 16.3 and X14 (DAMS Appendices D.1 and D.2). A temporary road diversion will require archaeological investigation and recording in advance of construction across area X14.

7.2.4 Archaeological investigation and recording would not be required within the western part of the WHS (DAMS Mitigation Action Area 24 (DAMS Appendix D.1)), , as archaeological remains here would not be impacted due to the longer bored tunnel extending to chainage 6+150.

8 Assessment of Effects

8.1 Introduction

The impacts and effects due to construction and operation of the Bored Tunnel Extension alternative are set out in Appendix 1 and discussed below. All assessments are based on change against the current baseline; and Appraisal outcomes are compared against the effects assessed for the DCO Scheme where relevant.

8.1.2 This Appraisal discusses only those heritage assets where a significant or non-significant effect is assessed. Neutral effects – where no impact is assessed ('no change') – are not reported in this Appraisal. This is consistent with the approach adopted in the ES, where effects not deemed significant were not reported (see ES Chapter 4: Environmental assessment methodology, paragraph 4.5.10).

8.1.3 The Appraisal focusses on the impacts on heritage assets in the area between the River Till and Normanton Down where the design of the Bored Tunnel Extension alternative differs from that of the DCO Scheme. For those parts of the Bored Tunnel Extension alternative between Yarnbury Camp and the River Till, and from Normanton Down to Earls Down, the impacts and significance of effects would be the same as the DCO Scheme, as the DCO Scheme design and the design of the alternative are identical in these sections.

8.2 Existing effects of the surface A303

8.2.1 The existing A303 has a major adverse impact on the OUV of the WHS (see the Main HIA, Appendix 6.1, Section 9.1; Highways England 2018b). It adversely affects the settings of many of the monuments within the WHS, including Stonehenge itself, and the interrelationships between monuments. These settings and interrelationships are attributes of the OUV of the WHS alongside other aspects including the design in relation to the skies and astronomy. The existing A303 also restricts and severs access, and impacts the quality of the visitor experience, such that the vast majority of visitors are able to appreciate only part of the WHS.

8.3 Construction effects of the Bored Tunnel Extension: temporary

8.3.1 Temporary construction activities would include similar activities to those described in the Main EIA (paragraphs 6.9.2 to 6.9.22; Highways England 2018a). The western portal for the extended bored tunnel would be situated c. 80m to the west of the western boundary of the WHS. The portal mouth would be in a deep cutting, with a larger footprint than that of the eastern side of Longbarrow Junction in the DCO Scheme and significantly deeper, at c.15m deep. The western approach road would be in a deep cutting and the TSB will be positioned immediately outside the western portal mouth to the north and within the cutting.

8.3.2 A new skewed dumbbell Longbarrow Junction would be situated within a dry valley on the eastern side of Winterbourne Stoke Hill, at chainage

4+900. A link road from the southern dumbbell would traverse across Oatlands Hill in a 2m to 3m deep cutting and include a new roundabout. The roundabout, which would connect the A360 (North) and (South) Link Roads, would be situated in a similar location to the southern dumbbell for the DCO Scheme's Longbarrow junction, to the west of Oatlands Hill. The A360 (North) Link Road would curve north on a similar alignment to the DCO Scheme and would cross the western approach cutting on a new green bridge. The A360 (South) Link Road would curve south to join the existing A360 on a similar alignment to the DCO Scheme.

8.3.3 The whole area, north of the Mainline of the new road, east of the skewed junction and north-west of the A360 (North) Link Road, would be an active dynamic construction site with a construction compound and tunnelling compound (including a Slurry Treatment Plant (STP)), as in the DCO Scheme. The western portal would be a highly active area with cranes and piling rigs for the construction of the cutting, and gantries for the assembly of the tunnel boring machine. Haul roads would link the compounds to the mainline, and traverse along it, carrying materials from the tunnel to the STP, and then westwards across the River Till viaduct to the tunnel materials deposition area at Parsonage Down.

8.3.4 The area between the A360 (North) and A360 (South) roads and the WHS boundary would, apart from the areas required for the construction of the western portal and the temporary access road, largely be fenced and protected during construction. Preservation of archaeological remains along the temporary road diversion across DAMS Mitigation area Area X14 would not be possible due to the nature of the topography.

Significant effects

8.3.5 The temporary construction works for the Bored Tunnel Extension alternative would result in Large adverse effects compared to the current baseline conditions on the Winterbourne Stoke Hill Ring Ditches (AG05) (derived from a Moderate negative change on a High value asset), due to the proximity of construction activity associated with the construction of the skewed Longbarrow Junction adjacent to the Asset Group. This compares to the DCO Scheme, for which the Main EIA reported no temporary adverse construction phase effects on AG05.

8.3.6 A Large adverse temporary construction effect compared to the current baseline conditions would also result from the presence of the construction compounds, the western portal (at chainage 6+150) and the construction of the A360 (North) Link Road on the Winterbourne Stoke Crossroads Barrows (AG12) and the Diamond Group (AG13). These would be the same as for the DCO Scheme, the Main EIA reporting Large adverse temporary effects on AG12 and Moderate to Large on AG13.

8.3.7 There would also be a Large adverse effect compared to the current baseline conditions on a Bronze Age enclosure and bowl barrow 100m west of Longbarrow Crossroads on Winterbourne Stoke Down (NHLE 1011048) (derived from Moderate negative changes to Very High value assets). This compares to the DCO Scheme, for which the Main EIA

reported no temporary adverse construction phase effect on NHLE 1011048.

Non-significant effects and other changes

8.3.8 The temporary works would result in a Slight adverse effect on the Winterbourne Stoke Conservation Area (UID 6015) compared to the current baseline conditions (derived from a Minor negative change on a Medium value asset), due to the construction of the skewed Longbarrow Junction just to the north-east of Winterbourne Stoke Hill and the Conservation Area. The Bored Tunnel Extension would result in No change and a Neutral effect for a number of assets and Asset Groups in the western part of the WHS, including discrete assets NHLE 1010831, 1010832, 1010833 and 1013812 and Asset Group AG19 Normanton Down Barrows. This compares to the DCO Scheme, for which the Main EIA reported Moderate and Large adverse effects on these discrete assets and on AG19 Normanton Down Barrows. In a similar way, there would be No change and a Neutral effect due to the Bored Tunnel Extension on Asset Group AG16 North Kite Enclosure and Lake Barrows, compared to a Slight adverse reported in the Miain EIA forthe DCO Scheme.

Effects that are the same as the DCO Scheme

8.3.9 It should be noted that other temporary construction effects compared to the current baseline conditions, reported in the Main EIA, would also persist in other parts of the DCO Scheme alongside those listed above, including:

- Significant effects: Moderate adverse – Melsome's Field Barrow (NHLE 1004741) (see Table 6.10 in the Main EIA);

- Non-significant effects: Slight adverse – King Barrows (AG26); The Avenue (AG27); Coneybury Henge and Associated Monuments (AG29); The Avenue Barrows (AG30); Countess Farm Barrows (AG31); Vespasian's Camp (AG32); Foredown House (UID 6013); Hill Farm Cottages (UID 6026); Amesbury Conservation Area (UID 6052); Amesbury Abbey Registered Park and Garden (UID 6053); Grey Bridge (NHLE 1131054); Countess Farmhouse and front garden wall (NHLE 1318487); and Stables and Barn at Countess Farm (NHLE 1131055) (see Table 1.1, Appendix 6.8, Main EIA).

8.3.10 As reported in the ES addendum, temporary construction activities would result in negligible impacts on large pit-like features (Anomalies 029 and 031) of potential Very High value, resulting in Slight adverse effects compared to the current baseline conditions.

8.4 Construction effects of the Bored Tunnel Extension: permanent

Significant effects

8.4.1 The position of the skewed Longbarrow junction would result in a Moderate adverse effect on the setting of the Winterbourne Stoke Hill Ring Ditches (AG05) (derived from a Moderate negative change to a High value asset), compared to the current baseline conditions due to the junction's proximity

adjacent to the Asset Group. This is in comparison to the DCO Scheme which results in a Slight adverse effect on the Winterbourne Stoke Hill Ring Ditches (AG05).

8.4.2 A substantial number of significant beneficial effects (Moderate and Large beneficial) compared to the current baseline conditions would result from construction of the Bored Tunnel Extension. These apply to 32 scheduled monuments (which include 88 individual barrows or other monuments) contained within three Asset Groups. All are within the western part of the WHS, and all are assessed as of Very High value. The Asset Groups subject to significant positive changes to setting compared to the current baseline conditions are:

a) Winterbourne Stoke Crossroads Barrows (AG12) (derived from Major positive and Minor negative changes to Very High value assets);

b) The Diamond Group (AG13) (derived from Moderate positive changes to Very High value assets (apart from NHLE 1011045 – see para 8.1.16 below)); and

c) Normanton Down Barrows (AG19) (derived from Moderate positive changes (AG19A, AG19B and AG19C) and Minor positive changes (AG19D) to Very High value assets).

8.4.3 In comparison to the DCO Scheme, the Bored Tunnel Extension would enhance beneficial effects on the AG12 Winterbourne Stoke Crossroads Barrows (moving from a Moderate beneficial effect to a Large beneficial effect), for AG13 The Diamond Group (moving from Slight adverse to a Large beneficial for the majority of the assets in the asset group) and for AG19A Normanton Down Barrows (north) (moving from Slight beneficial to Large beneficial). For AG19B, AG19C and AG19D, the effects of the Bored Tunnel extension would be the same as for the DCO Scheme.

8.4.4 Compared to the current baseline conditions, construction of the Bored Tunnel extension would result in permanent beneficial effects on a number of isolated and discrete assets assessed to be of Very High value and contribute to the OUV of the WHS, including barrows NHLE 1012394, 1011708, 1011709, 1010831, 1010832, 1010833 and 1013812 (Minor positive changes resulting in Moderate beneficial effects). These beneficial effects would be the same as for the DCO Scheme, except for NHLE 1010832, for which the Main EIA reported a Slight adverse effect on its setting due to the proximity of the tunnel portal.

8.4.5 A permanent beneficial effect compared to the current baseline conditions would also result on a small hengiform enclosure (UID 2177/7092) of Very High value (Moderate positive change resulting in a Large beneficial effect). The Main HIA assessed a Slight adverse effect on the setting of this asset due to construction of the DCO Scheme (derived from a Moderate Negative Change and a Moderate Positive Change to a Very High Value asset, resulting in both Large Adverse and Large Beneficial effects) (Main HIA, p. 481 – 482).

8.4.6 A Moderate beneficial effect compared to the current baseline conditions would also result on a scheduled linear boundary (NHLE 1010837) (derived from a Minor positive change to a High value asset) due to improvements to its setting from the construction of the Bored Tunnel Extension. This contrasts with the DCO Scheme for which a Slight adverse effect is assessed on NHLE 1010837 as part of Asset Group AG13 (Diamond Group) (Highways England 2018i, ES Appendix 6.9 Cultural Heritage Setting Assessment), compared to current baseline conditions.

Non-significant effects and other changes

8.4.7 The construction of the Bored Tunnel Extension would result in a permanent Slight adverse effect compared to the current baseline conditions on the setting of one scheduled monument (NHLE 1011045) within the Diamond Group (AG13) (derived from both Moderate positive and Moderate negative changes on a Very High value asset), due to the proximity of the western portal at chainage 6+150, just to the north of the asset. This effect is the same as reported in the Main EIA for the DCO Scheme.

8.4.8 Construction of the Bored Tunnel Extension would also result in No change and Neutral effects compared to the current baseline conditions on five archaeological assets in the western part of the WHS, including UID 2089; 2093; 2098; 2178 and 2180. For the DCO Scheme, the Main EIA reported a Slight adverse effect.

Effects that are the same as the DCO Scheme

8.4.9 For all other assets and Asset Groups, construction of the Bored Tunnel extension would havethe same effects as the DCO Scheme:

<u>Significant effects:</u>

- Moderate adverse: Archaeological remains – UID 2025; 2029; 2036; 2038; 2041; 2043; 2065; 2068; 2072; 2073; 2144 and 2167. Historic buildings – UID 6068. Historic Landscape Character Area – HWI2885.

- Moderate and Large beneficial: Asset Groups and their associated assets) - AG17; AG18; AG21; AG22; AG23; AG24; AG26; AG27; AG29 and AG30. Discrete and isolated assets – NHLE 1008946; 1008948; 1012388 and 1012389.

<u>Non-significant effects:</u>

- Slight adverse: Archaeological remains – UID 1004.01; 1004.02; 1005; 1008; 2014.02; 2033; 2045; 2046.02; 2048; 2050; 2052; 2053; 2056; 2074; 2076; 2078; 3077.03; 3077.05; 3084.03; 4031; 4076 and No UID. Asset Groups (and their associated assets) - AG31B and AG31C. Discrete assets NHLE 1009138. Historic buildings – UID 6013; 6052; 6053; 6061; 6062; 6063; 6064; 6065; 6067; 6069; 6070 and 6113. Historic Landscape Character Areas – HWI 1223; 979; 987; 2883; 2884; 2882; 2887; 2889; 1235; 2890; 2908; 2963; 3044; 3043; 3038; 3039; 3035; 3036; 898; 901 and 916.

- Slight beneficial: Asset Groups (and their associated assets) - AG02; AG16 and AG35. Discrete assets – NHLE 1011048. Historic buildings – UID 6033; 6037; 6038; 6039; 6040; 6041 and 6042.

8.5 Operational effects of the Bored Tunnel Extension

Significant effects

8.5.1 A substantial number of significant beneficial effects (Moderate and Large beneficial) would result from the operation of the Bored Tunnel Extension compared to the current baseline conditions. These beneficial operation phase effects would apply to 32 scheduled monuments (which include 88 individual barrows or other monuments) contained within three Asset Groups within the western part of the WHS, all assessed as of Very High value:

a) Winterbourne Stoke Crossroads Barrows (AG12) – Large beneficial effect (derived from Major positive and Minor negative changes to Very High value assets);

b) The Diamond Group (AG13) – Large beneficial (derived from Moderate positive changes to Very High value assets (apart from NHLE 1011045 – see para 8.1.22 below)); and

c) Normanton Down Barrows (AG19) – Large beneficial effect (derived from Moderate positive changes (AG19A, AG19B and AG19C) and Minor positive changes (AG19D) to Very High value assets).

8.5.2 In comparison to the DCO Scheme, the Bored Tunnel extension would improve beneficial effects for the AG12 Winterbourne Stoke Crossroads Barrows (moving from a Moderate beneficial effect for the DCO Scheme to a Large beneficial effect for the Bored Tunnel Extension), for AG13 The Diamond Group (moving from Slight adverse to a Large beneficial for the majority of the assets in the asset group) and for AG19A Normanton Down Barrows (north) (moving from Slight beneficial to Large beneficial). For AG19B, AG19C and AG19D, the effects would be the same as for the DCO Scheme.

8.5.3 There would also be significant positive changes to the setting of isolated and discrete assets compared to the current baseline conditions due to operation of the Bored Tunnel Extension. These changes would affect assets NHLE 1012394, 1011708, 1011709, 1010831, 1010832, 1010833, 1013812 (Minor positive changes resulting in Moderate beneficial effects), all assessed to be of Very High value and contribute to the OUV of the WHS. These beneficial effects would be the same as for the DCO Scheme, except for NHLE 1010832, for which the Main EIA reported no operational phase effects.

8.5.4 A beneficial effect compared to the current baseline conditions would also result on a small non-designated hengiform enclosure UID 2177/7092 assessed as of Very High value and to contribute to the OUV of the WHS (Moderate positive change resulting in a Large beneficial effect). The Main

HIA assessed a Slight adverse effect on the setting of this asset due to construction of the DCO Scheme (derived from a Moderate Negative Change and a Moderate Positive Change to a Very High Value asset, resulting in both Large Adverse and Large Beneficial effects) (Main HIA, p. 481 – 482).

8.5.5 Positive effects (Minor positive changes resulting in Moderate beneficial effects) compared to the current baseline conditions would also result on Scheduled linear boundaries (NHLE 1010837 and 1010838) of High value due to improvements to their setting arising from the operation of the Bored Tunnel extension. For the DCO Scheme, a slight adverse operational effect was assessed on NHLE 1010837 as part of Asset Group AG13 (Diamond Group) (Highways England 2018i, ES Appendix 6.9 Cultural Heritage Setting Assessment); for NHLE 1010838 a Neutral effect was assessed (not reported).;.

Non-significant effects and other changes

8.5.6 The operation of the Bored Tunnel Extension would result in a permanent Slight adverse effect compared to the current baseline conditions on the setting of one scheduled monument (NHLE 1011045) within the Diamond Group (AG13) (derived from both Moderate positive and Moderate negative changes on a Very High value asset). Although there would be positive changes to setting with the downgrading of the A360 to a byway to the east, traffic noise and potential light spill from the western portal mouth would impact negatively on the asset's setting during operation of the Bored Tunnel Extension. This would be the same as reported in the Main EIA for the DCO Scheme.

8.5.7 There would be Slight beneficial effects compared to the current baseline conditions on two large pit-like anomalies (Anomalies 029 and 031), in the western part of the WHS (derived from Negligible positive changes to assets of potentially Very High value) due to operation of the Bored Tunnel Extension. For the DCO Scheme, the ES Addendum (Highways England 2020a) assessed a worst-case Slight adverse operational effect on large pit-like Anomalies 029 and 032; no effect was assessed on Anomaly 031 due to operation of the DCO Scheme.

Effects that are the same as the DCO Scheme

8.5.8 For all other assets and Asset Groups, operation of the Bored Tunnel extension would have the same effects compared to the current baseline conditions as for the DCO Scheme:

Significant effects:

- Moderate and Large beneficial: Asset Groups (and their associated assets) – AG17; AG18; AG21; AG22; AG23; AG24; AG26; AG27; AG29 and AG30. Discrete assets – NHLE 1008946; 1008948; 1012388 and 1012389.

Non-significant effects:

- Slight adverse: Asset Groups (and their associated assets) – AG03; AG04; AG31B and AG31C. Historic buildings – UID 6013; 6052; 6053; 6061; 6062; 6063; 6064; 6065; 6067; 6068; 6069; 6070 and 6113.

- Slight beneficial: Asset Groups (and their associated assets) – AG02; AG16; AG20; AG25 and AG33. Discrete assets – NHLE 1011048. Historic buildings – UID 6010; 6011; 6014; 6015; 6016; 6017; 6018; 6026; 6032; 6033; 6037; 6038; 6039; 6040; 6041 and 6042.

8.6 Impacts of the Bored Tunnel Extension on the WHS and its OUV as a whole

8.6.1 The Bored Tunnel Extenison would have both positive and negative impacts on Attributes of OUV compared to the current baseline conditions, ranging from Negligible negative to Major positive, resulting in effects ranging from Slight adverse to Very Large beneficial.

8.6.2 Compared to the current baseline conditions the Bored Tunnel Extension would bring:

d) Very Large beneficial effects experienced by Stonehenge itself (Attribute 1) and Large beneficial effects experienced by its solstitial alignment (Attribute 4). These beneficial effects would be the same as for the DCO Scheme.

e) Moderate beneficial effects in relation to the siting of monuments in relation to each other (Attribute 5), within the landscape without parallel (Attribute 6), and with regards to the influence that the monuments and their landscape setting have on architects, artists, historians, archaeologists and others (Attribute 7). This compares to the DCO Scheme which would have Slight beneficial effects on Attributes 5, 6 and 7.

f) Slight beneficial effects in relation to the siting of Neolithic and Bronze Age funerary and ceremonial sites and monuments in relation to the landscape (Attribute 3), due to the reconnection of the landform and improved sightlines and potential for pedestrian access between AG12 Winterbourne Stoke Crossroads Barrows, AG13 The Diamond Group

and AG19 Normanton Down Barrows. This compares to a Slight adverse effect on Attribute 3 for the DCO Scheme..

g) Slight adverse effects upon the physical remains of the Neolithic and Bronze Age funerary and ceremonial monuments and associated sites (Attribute 2): this is the same as for the DCO Scheme, due to the impacts of the Eastern Portal and its approach cutting, notwithstanding that the Bored Tunnel Extension would avoid archaeological impacts within the western part of the WHS that would arise from construction of the DCO Scheme Western Portal.

8.6.3 In relation to the Integrity and Authenticity of the WHS as attributes of OUV, the Bored Tunnel Extension is assessed as Moderate beneficial, as it would avoid archaeological impacts within the western part of the WHS that would arise from construction of the DCO Scheme Western Portal, and would therefore retain archaeological remains in place. This compares with the DCO Scheme which was assessed to have a Slight beneficial effect on Integrity and Authenticity.

8.6.4 Overall, the effect on the WHS and its OUV as a whole of the Bored Tunnel Extension alternative (including the extended bored tunnel and relocated Longbarrow junction, with the eastern portal and approach and Countess junction the same as for the DCO Scheme) is assessed as Moderate beneficial. The significance of effect of the DCO Scheme on the overall OUV of the WHS was assessed as Slight Beneficial.

9 Cumulative Impact Assessment for the Bored Tunnel Extension

9.1.1 The cumulative assessment reported within this Appraisal considers two forms of cumulative impact, comprising:

a) Combinations of impacts, identified within the previous 2018 ES and subsequent 2020 ES addendum, which are considered likely to result in a new or different likely significant effect, or an effect of greater significance than any one of the impacts on their own, should the alternative be taken forward; and

b) Impacts, in combination with impacts associated with other proposed developments, identified in the 2018 ES and the Response to Bullet Point 4 – Environmental Information (National Highways 2022c) [Redetermination-1.4], which are likely to result in an effect of greater significance, or a new or different likely significant effect, should the Alternative be taken forward.

9.1.2 It is assessed that the Bored Tunnel Extension alternative would not result in any changes to those assessments already undertaken, as set out in (a) and (b) above.

10 Conclusions

10.1.1 This Appraisal sets out the likely temporary construction, permanent construction and permanent operational effects of the construction of the Bored Tunnel Extension alternative.

10.1.2 Compared to the DCO Scheme, the temporary construction activities for the Bored Tunnel Extension alternative would move further to the west, resulting in reduced adverse effects in the western part of the WHS. However, as with the DCO Scheme, there would be significant temporary adverse effects on Asset Groups AG12 Winterbourne Stoke Crossroads Barrows and AG13 Diamond Group and discrete asset NHLE 1011048, a Bronze Age enclosure and bowl barrow 100m west of Longbarrow Cross Roads on Winterbourne Stoke Down, which contribute to the OUV of the WHS; as well as AG05 Winterbourne Stoke Hill Ring Ditches.

10.1.3 With regard to permanent construction effects, the Bored Tunnel Extension would result in significant adverse effects on AG05 Winterbourne Stoke Hill Ring Ditches, due to the proximity of the skewed Longbarrow Junction adjacent to the Asset Group. This compares to the DCO Scheme, for which the Main EIA reported a non-significant adverse effect on Asset Group AG05.

10.1.4 In comparison to the DCO Scheme, construction of the Bored Tunnel Extension would remove severance in the western part of the WHS. There would be increased beneficial effects on Asset Groups AG12 Winterbourne Stoke Crossroads Barrows, AG13 Diamond Group and the northern end of AG19 Normanton Down Barrows (AG19A Normanton Down Barrows (north)), as well as discrete assets close to the western approach cutting (NHLE 1010831, 1010832, 1010833, 1013812 and UID 2177/7092),. Due to the proximity of the Bored Tunnel Extension western portal to asset NHLE 1011045, there would be Slight adverse effects on this western most asset in AG13 Diamond Group, as with the DCO Scheme. The extended tunnel would also benefit the setting of Scheduled linear boundary NHLE 1010837, in the western part of the WHS, compared to the DCO Scheme.

10.1.5 The Bored Tunnel extension would avoid archaeological impacts along the length of the longer tunnel alignment, the archaeological remains would be retained and not impacted by construction, and the area returned to agricultural use, resulting in beneficial effects in comparison to the DCO Scheme.

10.1.6 Operationally, the effects of the Bored Tunnel extension would be similar to those of the DCO Scheme, the principal differences being improved positive changes for Asset Groups AG12 Winterbourne Stoke Crossroads Barrows, AG13 Diamond Group and AG19 Normanton Down Barrows (in particular AG19A Normanton Down Barrows (north). The longer tunnel would also benefit the setting of Scheduled linear boundaries 1010837 and 1010838 in the western part of the WHS. There would be Slight adverse effects on asset NHLE 1011045 in the westernmost extent of AG13 The

Diamond Group, due to the proximity of the extended tunnel western portal and the funnelling of traffic noise and exhaust fumes as traffic exits the tunnel mouth.

10.1.7 The Bored Tunnel Extension alternative would therefore offer potential benefits for cultural heritage assets and Asset Groups above those of the DCO Scheme. The longer bored tunnel would extend c. 80m beyond the western boundary of the WHS, reducing severance and impacts on archaeological remains within the WHS compared to the DCO Scheme, helping to maintain the integrity and authenticity of the WHS. Compared to the current baseline conditions the Bored Tunnel Extension would improve the physical, visual, topographical and landscape relationships between Asset Groups AG12 Winterbourne Stoke Crossroads Barrows, AG13 The Diamond Group and AG19 Normanton Down Barrows, along with other isolated and discrete barrows in the western part of the WHS that contribute to its OUV.

10.1.8 In terms of the Outstanding Universal Value (OUV), Integrity and Authenticity of the WHS as a whole, the Bored Tunnel Extension alternative would result in a Moderate beneficial effect on the OUV of the WHS, compared to a Slight beneficial effect for the DCO Scheme.

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Appendix 1

Summary of Significant and Non-significant Effects for the DCO Scheme and the Bored Tunnel Extension Alternative

Summary of Significant and Non-significant Effects for the DCO Scheme and the Bored Tunnel Extension Alternative

Appendix 1.1 – Construction phase: temporary impacts and effects

Asset	Asset Value / contribution of setting to asset significance	Impact description	DCO Scheme: Impact Magnitude	DCO Scheme: Effect	Bored Tunnel Extension: Impact Magnitude	Bored Tunnel Extension: Effect
AG05 Winterbourne Stoke Hill Ring Ditches (MWI7207, MWI7208, MWI7209)	High Low contribution	Asset Group is immediately north of existing A303. Construction activity for the skewed Longbarrow junction adjacent to the Asset Group. Construction compound; STP; construction of main carriageway; haul roads and construction traffic/plant. Visual and aural impact.	No change	Neutral	Moderate negative	Large adverse
AG12 Winterbourne Stoke Crossroads Barrows (NHLE 1011047, 1011841, 1011842, 1011843, 1012368, 1012382)	Very High High contribution	Construction compound; construction of main carriageway and realigned A360; construction of western portal; haul roads and construction traffic/plant. Visual and aural impact.	Moderate negative	Large adverse	Moderate negative	Large adverse
AG13 The Diamond Group (NHLE 1010830, 1010834, 1011045, 1011046, 1021349; MWI13159, MWI13159, MWI75694, MWI75695)	Very High Low to moderate contribution	Construction compound; construction of main carriageway and realigned A360; construction of western portal; haul roads and construction traffic/plant. Visual and aural impact.	Minor and Moderate negative	Moderate and Large adverse	Moderate negative	Large adverse
AG16 North Kite Enclosure and Lake Barrows (NHLE 1010863)	Very High Moderate contribution	Construction of the main carriageway, western portal, canopy and Green Bridge 4, haul roads and construction traffic / plant in the DCO Scheme. Visual impact. No impacts in Bored Tunnel Extension.	Negligible negative	Slight adverse	No change	Neutral
AG19A Normanton Down Barrows (north) (NHLE 1008953, 1012369, 1012370) (and non-designated asset UID 3085 - MWI75988)	Very High High contribution	Construction of the main carriageway, western portal, canopy and Green Bridge 4, haul roads and construction traffic / plant in the DCO Scheme. Visual and aural impact. No impacts in Bored Tunnel Extension.	Moderate negative	Large adverse	No change	Neutral
AG19B Normanton Down Barrows (central) (NHLE 1009614, 1009615, 1009616, 1009617, 1009618, 1009626, 1010330)	Very High High contribution	Construction of the main carriageway, western portal, canopy and Green Bridge 4, haul roads and construction traffic / plant in the DCO Scheme. Visual and aural impact. No impacts in Bored Tunnel Extension.	Minor negative	Moderate adverse	No change	Neutral
AG19C Normanton Down Barrows (south-western) (NHLE 1009619, 1009620, 1009621, 1009622, 1009623)	Very High High contribution	Construction of the main carriageway, western portal, canopy and Green Bridge 4, haul roads and construction traffic / plant in the DCO Scheme. Visual and aural impact. No impacts in Bored Tunnel Extension.	Minor negative	Moderate adverse	No change	Neutral
AG19D Normanton Down Barrows (south-eastern) (NHLE 1009624, 1009625, 1010871, 1010872, 1010880, 1010885)	Very High High contribution	Construction of the main carriageway, western portal, canopy and Green Bridge 4, haul roads and construction traffic / plant in the DCO Scheme. Visual and aural impact. No impacts in Bored Tunnel Extension.	Negligible negative	Slight adverse	No change	Neutral
NHLE 1010831 (Scheduled Monument)	Very High Moderate contribution	Construction of the main carriageway, western portal, canopy and Green Bridge 4, haul roads and construction traffic / plant in the DCO Scheme. Visual and aural impact.	Moderate negative	Large adverse	No change	Neutral

Asset	Asset Value / contribution of setting to asset significance	Impact description	DCO Scheme: Impact Magnitude	DCO Scheme: Effect	Bored Tunnel Extension: Impact Magnitude	Bored Tunnel Extension: Effect
Bowl barrow 400m west of Normanton Gorse		No impacts in Bored Tunnel Extension.				
NHLE 1010832 (Scheduled Monument) **Bowl barrow south of the A303 and north west of Normanton Gorse**	Very High Moderate contribution	Construction of the main carriageway, western portal, canopy and Green Bridge 4, haul roads and construction traffic / plant in the DCO Scheme. Visual and aural impact. No impacts in Bored Tunnel Extension.	Moderate negative	Large adverse	No change	Neutral
NHLE 1010833 (Scheduled Monument) **Pond barrow south of the A303 and 400m west of Normanton Gorse containing the 'Wilsford Shaft'**	Very High Moderate contribution	Construction of the main carriageway, western portal, canopy and Green Bridge 4, haul roads and construction traffic / plant in the DCO Scheme. Visual and aural impact. No impacts in Bored Tunnel Extension.	Moderate negative	Large adverse	No change	Neutral
NHLE 1013812 (Scheduled Monument) **Bowl barrow 350m southwest of Normanton Gorse**	Very High Moderate contribution	Construction of the main carriageway, western portal, canopy and Green Bridge 4, haul roads and construction traffic / plant in the DCO Scheme. Visual and aural impact. No impacts in Bored Tunnel Extension.	Moderate negative	Large adverse	No change	Neutral
NHLE 1011048 (Scheduled Monument) **Bronze Age enclosure and bowl barrow 100m west of Longbarrow Cross Roads on Winterbourne Stoke Down**	Very High Low contribution	Currently traffic on the existing A303 bisects the asset. Construction compound; construction of main carriageway and realigned A360; construction of western portal; haul roads and construction traffic/plant. Visual and aural impact.	Moderate negative	Large adverse	Moderate negative	Large adverse
NHLE 1008949 (Scheduled Monument) **Bowl barrow 450m south-south-west of Airman's Corner on Winterbourne Stoke Down**	Very High High contribution	Construction compound in distant views to the south will be screened by grassed bunds. The monument's setting will continue to be dominated by the existing A360 which severs the asset from the other barrows on Winterbourne Stoke Down to the east.	No change	Neutral	No change	Neutral
NHLE 1008950 (Scheduled Monument) **Bowl barrow 550m south of Airman's Corner on Winterbourne Stoke Down**	Very High High contribution	Construction compound in distant views to the south-west will be screened by grassed bunds. The monument's setting will continue to be dominated by the existing A360 which severs the assets from the other barrow on Winterbourne Stoke Down to the west.	No change	Neutral	No change	Neutral
NHLE 1011039 (Scheduled Monument) **Bell barrow 450m south of A344 on Winterbourne Stoke Down**	Very High High contribution	Construction compound in distant views to the south-west will be screened by grassed bunds. The monument's setting will continue to be dominated by the existing A360 which severs the assets from the other barrow on Winterbourne Stoke Down to the west.	No change	Neutral	No change	Neutral
NHLE 1011040 (Scheduled Monument) **Bowl barrow 400m south of A344 on Winterbourne Stoke Down**	Very High High contribution	Construction compound in distant views to the south-west will be screened by grassed bunds. The monument's setting will continue to be dominated by the existing A360 which severs the assets from the other barrow on Winterbourne Stoke Down to the west.	No change	Neutral	No change	Neutral
NHLE 1011041 (Scheduled Monument) **Pond barrow 700m south of A344 on Winterbourne Stoke Down**	Very High High contribution	Construction compound in distant views to the south-west will be screened by grassed bunds. The monument's setting will continue to be dominated by the existing A360 which severs the assets from the other barrow on Winterbourne Stoke Down to the north-west.	No change	Neutral	No change	Neutral

Asset	Asset Value / contribution of setting to asset significance	Impact description	DCO Scheme: Impact Magnitude	DCO Scheme: Effect	Bored Tunnel Extension: Impact Magnitude	Bored Tunnel Extension: Effect
NHLE 1011043 (Scheduled Monument) **Bowl barrow 430m south of A344 on Winterbourne Stoke Down**	Very High High contribution	Construction compound in distant views to the south-west will be screened by grassed bunds. The monument's setting will continue to be dominated by the existing A360 which severs the assets from the other barrow on Winterbourne Stoke Down to the west.	No change	Neutral	No change	Neutral
NHLE 1011044 (Scheduled Monument) **Bowl barrow 600m south of A344 on Winterbourne Stoke Down**	Very High High contribution	Construction compound in distant views to the south-west will be screened by grassed bunds. The monument's setting will continue to be dominated by the existing A360 which severs the assets from the other barrow on Winterbourne Stoke Down to the north-west.	No change	Neutral	No change	Neutral
UID 2177/7092 (non-designated asset) **'Anomaly 10000', small hengiform enclosure, 17m south of A303, south-east of Winterbourne Stoke Clump**	Very High	The asset is sited 17m to the south of the existing A303 and is ploughed flat within an arable agricultural field. No impacts in Bored Tunnel Extension.	No change	Neutral	No change	Neutral
NHLE 1010837 (Scheduled Monument) **Linear boundary from south-east of Winterbourne Stoke crossroads to south-west of The Diamond on Wilsford Down**	High Low to moderate contribution	The asset is dominated by traffic on the existing A303 to the north, A360 to the west, and existing Longbarrow roundabout to the north-west. Construction of the main carriageway, western portal and Longer Bored Tunnel in Bored Tunnel Extension; haul roads and construction traffic / plant. Visual and aural impact. No impacts in Bored Tunnel Extension.	Moderate negative	Large adverse	No change	Neutral
NHLE 1010838 (Scheduled Monument) **Linear boundary within Normanton Gorse**	High Set within Normanton Gorse which detracts from the asset's significance	Limited views out of Normanton Gorse from the asset.	No change	Neutral	No change	Neutral
UID 6015 (Designated asset) **Winterbourne Stoke Conservation Area**	Medium Moderate contribution	Construction activity for the skewed Longbarrow junction; haul roads and construction traffic/plant. Visual and aural impact.	No change	Neutral	Minor negative	Slight adverse
UID 2083 / Anomaly 029 **Large pit-like feature**	Very High (precautionary approach)	Construction of the main carriageway, western portal, canopy and Green Bridge 4, haul roads and construction traffic / plant in the DCO Scheme. Visual and aural impact. No impacts in Bored Tunnel Extension.	Negligible negative	Slight adverse	No change	Neutral
Anomaly 030 **Large pit-like feature – natural**	Medium	Construction of the main carriageway, western portal, canopy and Green Bridge 4, haul roads and construction traffic / plant in the DCO Scheme. Visual and aural impact. No impacts in Bored Tunnel Extension.	Negligible negative	Neutral	No change	Neutral
Anomaly 031 **Large pit-like feature**	Very High (precautionary approach)	Construction of the main carriageway, western portal, canopy and Green Bridge 4, haul roads and construction traffic / plant in the DCO Scheme. Visual and aural impact. No impacts in Bored Tunnel Extension.	Negligible negative	Slight adverse	No change	Neutral
Anomaly 032 **Large pit-like feature**	Very High (precautionary approach)	Construction compound in distant views to the south-west will be screened by grassed bunds. The monument's setting will continue to be dominated by the existing A360.	Negligible negative	Slight adverse	No change	Neutral
Anomaly 033 Large pit-like feature – natural	Medium	Construction compound and A360 Link Road (North)	Negligible negative	Neutral	Negligible negative	Neutral

Appendix 1.2 – Construction phase: permanent impacts and effects

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
Archaeological Assets (identified by UID and corresponding NHLE and WSHER references)								
2014.02 MWI6406	Boundary Ditch south of Winterbourne Stoke Roundabout. Extensive Bronze Age / Iron Age linear feature (c.1.9km in length).	High	DCO Scheme – Realigned A360 North; cutting approach to western portal. Bored Tunnel Extension – Realigned A360 North.	Archaeological investigation and recording in advance of construction; preservation in situ in construction compound.	Minor negative	Slight adverse	Minor negative	Slight adverse
2076 MWI7201	Features at Longbarrow Crossroads. Numerous linear and curvilinear features identified by geophysical surveys. Possibly related to Late Bronze Age settlement	Medium	DCO Scheme – Realigned A360 North. Bored Tunnel Extension – Realigned A360 North (similar alignment to DCO Scheme).	Archaeological investigation and recording in advance of construction.	Minor negative	Slight adverse	Minor negative	Slight adverse
2078 MWI6405; MWI7125; MWI7201	Enclosure N of Winterbourne Stoke Roundabout. Possible rectangular enclosure and associated linear features identified from aerial photographs. Possibly related to Late Bronze Age settlement.	Medium	DCO Scheme – Realigned A360 North. Bored Tunnel Extension – Realigned A360 North (similar alignment to DCO Scheme).	Archaeological investigation and recording in advance of construction.	Minor negative	Slight adverse	Minor negative	Slight adverse
2089 MWI6990; MWI7003; MWI7094; MWI10757; MWI12625; MWI13128; MWI13155	Field system, Oatlands Hill / Wilsford Down. Extensive area of co-axial field system mapped from aerial photographs.	Medium	DCO Scheme – Cutting approach to western portal. Bored Tunnel Extension – No impact.	DCO Scheme – Archaeological investigation and recording in advance of construction. Bored Tunnel Extension – none proposed.	Minor negative	Slight adverse	No change	Neutral
2093 MWI12608; MWI73256	Military railway, W of the Cursus. Route of early 20th century light military railway, now visible as a cropmark and on aerial photographs. Below ground traces minimal.	Low	DCO Scheme – Cutting approach to western portal. Bored Tunnel Extension – No impact.	DCO Scheme – Archaeological investigation and recording in advance of construction where it survives. Bored Tunnel Extension – none proposed.	Negligible negative	Slight adverse	No change	Neutral
2098 MWI13149	SW of Longbarrow Roundabout. Ploughed-out linear features. Undated, of either natural or archaeological origin. Possible Wessex linear.	Medium	DCO Scheme – Cutting approach to western portal. Bored Tunnel Extension – No impact.	DCO Scheme – Archaeological investigation and recording in advance of construction where it survives. Bored Tunnel Extension – none proposed.	Negligible negative	Slight adverse	No change	Neutral

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
2178 MWI75708	Pits SE of Winterbourne Stoke Crossroads. Numerous possible undated pits detected by geophysical survey. Subsequent evaluation identified scattered Bronze Age pits.	Medium	DCO Scheme – Cutting approach to western portal. Bored Tunnel Extension – No impact.	DCO Scheme – Archaeological investigation and recording in advance of construction. Bored Tunnel Extension – none proposed.	Minor negative	Slight adverse	No change	Neutral
2180 MWI75990	Pits N and NW of Normanton Gorse. Large number of possible undated pits detected by geophysical survey. Subsequent evaluation identified tree throws that had subsequently used for pits and a neonate burial	Medium	DCO Scheme – Cutting approach to western portal. Bored Tunnel Extension – No impact.	DCO Scheme – Archaeological investigation and recording in advance of construction. Bored Tunnel Extension – none proposed.	Minor negative	Slight adverse	No change	Neutral
Asset Groups (identified by NHLE and WSHER references). For details of the setting assessments for each Asset Group see Appendix 6.9, ES Chapter 6								
AG05 Winterbourne Stoke Hill Ring Ditches								
2054.01 MWI7207	Barrow, Winterbourne Stoke Hill	High	DCO Scheme – main carriageway, Till viaduct eastern embankment. Negative influence upon setting. Bored Tunnel Extension – Skewed Longbarrow Junction adjacent to Asset Group, main carriageway, Till viaduct eastern embankment. Negative influence upon setting.	DCO Scheme – None Proposed. Bored Tunnel Extension – Retaining structure for Skewed Longbarrow Junction to minimise land take.	Minor negative	Slight adverse	Moderate negative	Moderate adverse
2054.02 MWI7208	Barrow, Winterbourne Stoke Hill	High			Minor negative	Slight adverse	Moderate negative	Moderate adverse
2054.03 MWI7209	Barrow, Winterbourne Stoke Hill	High			Minor negative	Slight adverse	Moderate negative	Moderate adverse
AG12 Winterbourne Stoke Crossroads Barrows								
NHLE 1011047 MWI7081; MWI7082; MWI7083; MWI7084; MWI7085; MWI7086; MWI7087	Five bowl barrows and two saucer barrows forming a round barrow cemetery on Winterbourne Stoke Down.	Very High	Bored Tunnel Extension – Western Portal at chainage 6+150; western approach cutting; realigned A360 north (same as DCO Scheme). DCO Scheme – Western approach cutting; realigned A360 North. Positive influence upon setting for Bored Tunnel Extension. Greater physical separation between the monuments within the Asset Group and the A303 and A360 – reduced visual impact of roads and associated infrastructure. Restored or enhanced sightlines with other monument groups.	Ground movement monitoring. A303 and A360 downgraded to byway with sympathetic surface design. Chalk grassland on cutting slopes – western approach cutting. Hedge planting along A360 north and south link roads to integrate with current landscape west of the WHS boundary. Bored Tunnel Extension – Green Bridge design the same as Green Bridge 3 in DCO Scheme.	Minor positive	Moderate beneficial	Major positive Minor negative	Large beneficial
NHLE 1011841 MWI12485	Long barrow northeast of Winterbourne Stoke crossroads.				Moderate positive	Large beneficial	Major positive Minor negative	Large beneficial
NHLE 1011842 MWI7080	Bowl barrow immediately east of the A360 forming part of the Winterbourne Stoke crossroads round barrow cemetery.				Minor positive	Moderate beneficial	Major positive Minor negative	Large beneficial
NHLE 1011843 MWI7079	Bowl barrow east of the A360 forming part of the Winterbourne Stoke crossroads round barrow cemetery.				Minor positive	Moderate beneficial	Major positive Minor negative	Large beneficial
NHLE 1012368 MWI12978; MWI12981;	Eighteen round barrows forming the greater part of the				Minor positive	Moderate beneficial	Major positive Minor negative	Large beneficial

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
MWI12982; MWI12983; MWI12984; MWI12985; MWI12986; MWI12987; MWI12988; MWI12989; MWI12990; MWI12991; MWI12992; MWI12993; MWI12994 MWI12995; MWI12996; MWI12997	Winterbourne Stoke crossroads round barrow cemetery.							
NHLE 1012382 MWI12677; MWI12678; MWI12877	Two bowl barrows forming part of the Winterbourne Stoke crossroads round barrow cemetery.				Minor positive	Moderate beneficial	Major positive Minor Negative	Large beneficial
AG13 Diamond Group								
NHLE 1011045 MWI6398 UID2002	Bowl barrow 250m south-west of Longbarrow Cross Roads, west of A360	Very High	DCO Scheme – western approach cutting, western portal, construction of canopy and Green Bridge 4; realigned A360 south. Bored Tunnel Extension – Western Portal at chainage 6+150; western approach cutting; realigned A360 south (same as DCO Scheme). Positive influence upon setting for Bored Tunnel Extension, but lessened by the western portal being just to the north of the western most asset in the Asset Group (NHLE 1011045). Greater physical separation between the monuments within the Asset Group and the A303 and A360. Bored Tunnel Extension removes the existing A360 that severs the Asset Group, further to the west – reduced visual impact of roads and associated infrastructure. Restored or enhanced sightlines with other monument groups.	Ground movement monitoring. A303 and A360 downgraded to byway with sympathetic surface design. Chalk grassland on cutting slopes – western approach cutting. Hedge planting along A360 north and south link roads to integrate with current landscape west of the WHS boundary. Bored Tunnel Extension – Green Bridge design the same as Green Bridge 3 in DCO Scheme.	Moderate negative and Minor positive	Slight adverse	Moderate positive and Moderate negative	Slight adverse
NHLE 1011046 MWI12720 UID 2011	Bowl barrow 400m south-east of Longbarrow Cross Roads, east of A360				Moderate negative and Minor positive	Slight adverse	Moderate positive	Large beneficial
NHLE 1010830 MWI12486 UID 2012	Long barrow on Wilsford Down 300m north of the Diamond				Moderate negative and Minor positive	Slight adverse	Moderate positive	Large beneficial
NHLE 1010834 MWI12970, MWI12971, MWI12972, MWI12973, MWI12974, MWI12975, MWI12976, MWI12977 UID 2013	Seven bowl barrows and a pond barrow forming a round barrow cemetery 200m north of The Diamond on Wilsford Down				Moderate negative and Minor positive	Slight adverse	Moderate positive	Large beneficial
NHLE 1021349 MWI12666 UID 2010	Henge monument 300m south of Longbarrow Cross Roads, east of A360				Moderate negative and Minor positive	Slight adverse	Moderate positive	Large beneficial
MWI13159 UID 2087	Long Barrow, south-south-east of Longbarrow Crossroads				Moderate negative and Minor positive	Slight adverse	Moderate positive	Large beneficial

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
MWI75694 UID 2170	Neolithic long barrow, Area SW2				Moderate negative and Minor positive	Slight adverse	Moderate positive	Large beneficial
MWI75695 UID 2102	Penannular ditch and cremations south of Long Barrow Crossroads				Moderate negative and Minor positive	Slight adverse	Moderate positive	Large beneficial
AG16 North Kite Enclosure and Lake Barrows								
NHLE 1010863	North Kite Enclosure and Lake Barrows Lake Barrow Group, North Kite earthwork enclosure, four sections of linear boundary, and a bowl barrow within the North Kite	Very High	DCO Scheme – Western approach cutting, western portal, construction of canopy and Green Bridge 4. Bored Tunnel Extension – No impact. Bored Tunnel Extension would have a positive influence upon the setting once construction was completed, reducing the visual impact of roads and related infrastructure.	None.	Negligible positive	Slight beneficial	Negligible positive	Slight beneficial
AG17 Bowl barrow west of Stonehenge								
NHLE 1012393	Bowl barrow 450m south of the A344 on Stonehenge Down	Very High	DCO Scheme – Western approach cutting, western portal, construction of canopy and Green Bridge 4. Bored Tunnel Extension – No impact. Bored Tunnel Extension would have a positive influence upon the setting once construction was completed, reducing the visual impact of roads and related infrastructure. Physical reconnection with the landscape to the south. Sightlines uninterrupted. Sense of place improved.	A303 downgraded to byway with sympathetic surface design.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
AG19 Normanton Down Barrows								
AG19A Normanton Down Barrows – north								
NHLE 1008953 MWI12487 UID 3001	Long barrow 250m north of Normanton Gorse	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel. Removal of present A303 surface road. Bored Tunnel Extension – Longer Bored Tunnel.	Ground movement monitoring. A303 downgraded to byway with sympathetic surface design.	Minor negative and Major positive	Slight beneficial	Moderate positive	Large beneficial
NHLE 1012369 MWI 12999, MWI1300, MWI13001 UID 3002	Three bowl barrows immediately north of the A303 on Stonehenge Down				Minor negative and Major positive	Slight beneficial	Moderate positive	Large beneficial

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
NHLE 1012370 MWI12998 UID 3000	Bell barrow situated 50m north of Normanton Gorse and 170m south of the A303		Positive influence upon setting. Reduced visual impact of roads and associated infrastructure. Restored or enhanced sightlines with other monument groups.		Minor negative and Major positive	Slight beneficial	Moderate positive	Large beneficial
MWI75988 UID 3085	Circular anomaly, north of Normanton Gorse				Minor negative and Major positive	Slight beneficial	Moderate positive	Large beneficial
AG19B Normanton Down Barrows – central								
NHLE 1009614	Long barrow and 18 round barrows, forming the greater part of Normanton Down round barrow cemetery	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel. Removal of present A303 surface road. Bored Tunnel Extension – Longer Bored Tunnel. Positive influence upon setting. Much reduced visual impact of roads and associated infrastructure. Restored or enhanced sightlines with other monument groups.	Ground movement monitoring. A303 downgraded to byway with sympathetic surface design.	Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009615	Disc barrow forming part of the Normanton Down round barrow cemetery				Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009616	Bowl barrow forming part of the Normanton Down round barrow cemetery				Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009618	Bowl barrow known as 'Bush Barrow' and two disc barrows south-east of Normanton Gorse forming part of Normanton Down round barrow cemetery.				Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1010330	Bowl barrow forming part of Normanton Down round barrow cemetery.				Moderate positive	Large beneficial	Moderate positive	Large beneficial
AG19C Normanton Down Barrows – south western								
NHLE 1009619	Bowl barrow 120m south of Normanton Down round barrow cemetery.	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel. Removal of present A303 surface road. Bored Tunnel Extension – Longer Bored Tunnel. Positive influence upon setting. Much reduced visual impact of roads and associated infrastructure. Restored or enhanced sightlines with other monument groups.	None proposed.	Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009620	Three bowl barrows 150m south of Normanton Down round barrow cemetery.				Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009621	Long barrow 350m south west of the Normanton Down round barrow cemetery.				Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009622	Bowl barrow south of Normanton Gorse on the southern edge of Normanton Down.				Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009623	Bowl barrow 400m south of Normanton Gorse.				Moderate positive	Large beneficial	Moderate positive	Large beneficial
AG19D Normanton Down Barrows – south eastern								

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
NHLE 1009624	Two round barrows 300m south of Normanton Down round barrow cemetery.	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel. Removal of present A303 surface road. Bored Tunnel Extension – Longer Bored Tunnel. Positive influence upon setting. Much reduced visual impact of roads and associated infrastructure. Restored or enhanced sightlines with other monument groups.	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1009625	Bowl barrow 700m north of Springbottom Farm.				Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1010871	Bowl barrow forming part of a round barrow cemetery 350m north of Springbottom Farm buildings.				Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1010872	Bowl barrow forming part of a round barrow cemetery 350m north of Springbottom Farm buildings.				Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1010880	Six bowl barrows forming the greater part of a round barrow cemetery on Wilsford Down.				Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1010885	Bowl barrow 450m north of Springbottom Farm.				Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
Discrete assets								
NHLE 1011708 MWI12760	Bowl barrow 100m southeast of the Diamond.	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel. Removal of present A303 surface road. Bored Tunnel Extension – Longer Bored Tunnel. Positive influence upon setting. Much reduced visual impact of roads and associated infrastructure. Restored or enhanced sightlines with other monument groups.	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1011709	Bowl barrow 450m east of the Diamond.	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel. Removal of present A303 surface road. Bored Tunnel Extension – Longer Bored Tunnel. Positive influence upon setting. Much reduced visual impact of roads and associated infrastructure. Restored or enhanced sightlines with other monument groups.	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1012394 MWI12966; MWI12967;	Four bowl barrows 140m north of the A303 on Stonehenge Down	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel. Removal of present A303 surface road.	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
MWI12968; MWI12969			Bored Tunnel Extension – Longer Bored Tunnel. Positive influence upon setting. Much reduced visual impact of roads and associated infrastructure. Restored or enhanced sightlines with other monument groups.					
NHLE 1011048 MWI6924; MWI7128; MWI7198	Bronze Age enclosure and bowl barrow 100m west of Longbarrow Cross Roads on Winterbourne Stoke Down	Very High	DCO Scheme – Main carriageway; A360 realignment north. Removal of physical severance; landscape reconnection. Bored Tunnel Extension – Longer bored tunnel, deep portal to the south of the asset; A360 north c.190m to the west; Removal of physical severance; landscape reconnection.	Removal of existing road.	Minor negative and Major positive	Slight beneficial	Major positive Minor negative Negligible negative	Slight beneficial
NHLE 1010831 MWI12979	Bowl barrow 400m west of Normanton Gorse	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel (removal of present A303 surface road) Bored Tunnel Extension – Longer Bored Tunnel. Removal of present A303 surface road. Positive influence upon setting. Much reduced visual impact of roads and associated infrastructure. Restored or enhanced sightlines with other monument groups.	Ground movement monitoring.	Moderate negative and Moderate positive	Neutral	Minor positive	Moderate beneficial
NHLE 1010832 MWI12542; MWI13002 UID2018	Bowl barrow south of the A303 and north west of Normanton Gorse	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel (removal of present A303 surface road) Bored Tunnel Extension – Longer Bored Tunnel. Removal of present A303 surface road. Positive influence upon setting. Much reduced visual impact of roads and associated infrastructure. Restored or enhanced sightlines with other monument groups.	Ground movement monitoring.	Negligible negative and Minor positive	Slight adverse	Minor positive	Moderate beneficial
NHLE 1010833 MWI12519	Pond barrow south of the A303 and 400m west of Normanton Gorse containing the 'Wilsford Shaft'	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel (removal of present A303 surface road) Bored Tunnel Extension – Longer Bored Tunnel. Removal of present A303 surface road. Positive influence upon setting. Much reduced visual impact of roads and	Ground movement monitoring.	Negligible negative and Minor positive	Slight adverse	Minor positive	Moderate beneficial

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
			associated infrastructure. Restored or enhanced sightlines with other monument groups.					
NHLE 1013812 MWI12980	Bowl barrow 350m south-west of Normanton Gorse	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel (removal of present A303 surface road) Bored Tunnel Extension – Longer Bored Tunnel. Removal of present A303 surface road. Positive influence upon setting. Much reduced visual impact of roads and associated infrastructure. Restored or enhanced sightlines with other monument groups.	Ground movement monitoring.	Moderate negative and Major positive	Neutral	Minor positive	Moderate beneficial
NHLE 1008949 MWI7052	Bowl barrow 450m south-south-west of Airman's Corner on Winterbourne Stoke Down	Very High	Severance and dominance of existing A360 will remain following construction.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1008950 MWI7089	Bowl barrow 550m south of Airman's Corner on Winterbourne Stoke Down	Very High	Severance and dominance of existing A360 will remain following construction.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1011039 MWI12881	Bell barrow 450m south of A344 on Winterbourne Stoke Down	Very High	Severance and dominance of existing A360 will remain following construction.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1011040 MWI12880	Bowl barrow 400m south of A344 on Winterbourne Stoke Down	Very High	Severance and dominance of existing A360 will remain following construction.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1011041 MWI12883	Pond barrow 700m south of A344 on Winterbourne Stoke Down	Very High	Severance and dominance of existing A360 will remain following construction.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1011043 MWI12888	Bowl barrow 430m south of A344 on Winterbourne Stoke Down	Very High	Severance and dominance of existing A360 will remain following construction.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1011044 MWI12886	Bowl barrow 600m south of A344 on Winterbourne Stoke Down	Very High	Severance and dominance of existing A360 will remain following construction.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1010837 MWI13131	Linear boundary from south-east of Winterbourne Stoke crossroads to south-west of The Diamond on Wilsford Down	High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel (removal of present A303 surface road) Bored Tunnel Extension – Longer Bored Tunnel. Removal of present A303 surface road. Positive influence upon setting. Much reduced visual impact of roads and associated infrastructure.	Ground movement monitoring.	Minor positive and Moderate negative	Slight adverseeutral	Minor positive	Moderate beneficial

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
NHLE 1010838 MWI13133	Linear boundary within Normanton Gorse	High	DCO Scheme – Setting following construction, within Normanton Gorse, remains the same. Bored Tunnel Extension – no impacts.	None proposed.	No change	Neutral	No change	Neutral
UID 2177/7092 MWI76819	'Anomaly 10000', small hengiform enclosure, south of A303, south-east of Winterbourne Stoke Clump	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel (removal of present A303 surface road) Bored Tunnel Extension – Longer Bored Tunnel. Removal of present A303 surface road.	Positive change to setting with downgrading of existing A303 (17m to the north) to a byway. Ground movement monitoring. Returned to agricultural use.	Moderate negative and Moderate positive	Slight adverse	Moderate positive	Large beneficial
UID 2083 / Anomaly 029	Large pit-like feature	Very High (precautionary approach)	Outside construction footprint for DCO Scheme and Bored Tunnel Extension.	None proposed.	No change	Neutral	No change	Neutral
Anomaly 030	Large pit-like feature – natural	Medium	Outside construction footprint for DCO Scheme and Bored Tunnel Extension.	None proposed.	No change	Neutral	No change	Neutral
Anomaly 031	Large pit-like feature	Very High (precautionary approach)	Outside construction footprint for DCO Scheme and Bored Tunnel Extension.	None proposed.	No change	Neutral	No change	Neutral
Anomaly 032	Large pit-like feature	Very High (precautionary approach)	Outside construction footprint for DCO Scheme and Bored Tunnel Extension.	None proposed.	No change	Neutral	No change	Neutral
Anomaly 033	Large pit-like feature – natural	Medium	Outside construction footprint for DCO Scheme and Bored Tunnel Extension.	None proposed.	No change	Neutral	No change	Neutral

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme: Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
Asset Groups (identified by NHLE and WSHER references). For details of the setting assessments for each Asset Group see Appendix 6.9, ES Chapter 6								
AG12 Winterbourne Stoke Crossroads Barrows								
NHLE 1011047 MWI7081; MWI7082; MWI7083; MWI7084; MWI7085; MWI7086; MWI7087	Five bowl barrows and two saucer barrows forming a round barrow cemetery on Winterbourne Stoke Down.	Very High	DCO Scheme – Longbarrow Junction; realigned A360; cutting approach to western portal. Bored Tunnel Extension – Western Portal at chainage 6+150; western approach cutting; realigned A360 north (same as DCO Scheme). Some negative impacts remain from noise and potential light spill due to the proximity of the western portal.	None proposed.	Minor positive	Moderate beneficial	Major positive Minor negative	Large beneficial
NHLE 1011841 MWI12485	Long barrow northeast of Winterbourne Stoke crossroads.		Reduced impact of traffic: mostly positive influence upon setting.		Moderate positive	Large beneficial	Major positive Minor negative	Large beneficial
NHLE 1011842 MWI7080	Bowl barrow immediately east of the A360 forming part of the Winterbourne Stoke crossroads round barrow cemetery.				Minor positive	Moderate beneficial	Major positive Minor negative	Large beneficial
NHLE 1011843 MWI7079	Bowl barrow east of the A360 forming part of the Winterbourne Stoke crossroads round barrow cemetery.				Minor positive	Moderate beneficial	Major positive Minor negative	Large beneficial
NHLE 1012368 MWI12615; MWI12978; MWI12981; MWI12982; MWI12983; MWI12984; MWI12985; MWI12986; MWI12987; MWI12988; MWI12989; MWI12990; MWI12991	Eighteen round barrows forming the greater part of the Winterbourne Stoke crossroads round barrow cemetery.				Minor positive	Moderate beneficial	Major positive Minor negative	Large beneficial
NHLE 1012382 MWI12677; MWI12678; MWI12877	Two bowl barrows forming part of the Winterbourne Stoke crossroads round barrow cemetery.				Minor positive	Moderate beneficial	Major positive Minor negative	Large beneficial

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme: Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
AG13 Diamond Group								
NHLE 1011045 MWI6398 UID2002	Bowl barrow 250m south-west of Longbarrow Cross Roads, west of A360	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel (removal of present A303 surface road) Negative influence upon setting – traffic noise. Bored Tunnel Extension – Western Portal at chainage 6+150; western approach cutting; realigned A360 south (same as DCO Scheme). Reduced impact of traffic for Bored Tunnel Extension for the majority of the asset group: positive influence upon setting. Some negative impacts remain from traffic noise and potential light spill due to the proximity of the western portal to NHLE 1011045.	None proposed.	Negligible negative	Slight adverse	Moderate positive and Moderate negative	Slight adverse
NHLE 1011046 MWI12720 UID 2011	Bowl barrow 400m south-east of Longbarrow Cross Roads, east of A360				Negligible negative	Slight adverse	Moderate positive	Large beneficial
NHLE 1010830 MWI12486 UID 2012	Long barrow on Wilsford Down 300m north of the Diamond				Negligible negative	Slight adverse	Moderate positive	Large beneficial
NHLE 1010834 MWI12970, MWI12971, MWI12972, MWI12973, MWI12974, MWI12975, MWI12976, MWI12977, MWI73294, UID 2013	Seven bowl barrows and a pond barrow forming a round barrow cemetery 200m north of The Diamond on Wilsford Down				Negligible negative	Slight adverse	Moderate positive	Large beneficial
NHLE 1021349 MWI12666 UID 2010	Henge monument 300m south of Longbarrow Cross Roads, east of A360				Negligible negative	Slight adverse	Moderate positive	Large beneficial
MWI13159 UID 2087	Long Barrow, south-south-east of Longbarrow Crossroads				Negligible negative	Slight adverse	Moderate positive	Large beneficial
MWI75694 UID 2170	Neolithic long barrow, Area SW2				Negligible negative	Slight adverse	Moderate positive	Large beneficial
MWI75695 UID 2102	Penannular ditch and cremations south of Long Barrow Crossroads				Negligible negative	Slight adverse	Moderate positive	Large beneficial
AG16 North Kite Enclosure and Lake Barrows								
NHLE 1010863	North Kite Enclosure and Lake Barrows Lake Barrow Group, North Kite earthwork enclosure, four sections of linear boundary, and a bowl barrow within the North Kite	Very High	DCO Scheme – Longbarrow Junction; realigned A360; cutting approach to western portal; tunnel. Reduced impact of traffic: positive influence upon setting. Bored Tunnel Extension would have a positive influence upon the setting due to the removal of visual and aural impacts from traffic on the A303.	None proposed.	Negligible positive	Slight beneficial	Negligible positive	Slight beneficial

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme: Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
AG17 Bowl barrow west of Stonehenge								
NHLE 1012393	Bowl barrow 450m south of the A344 on Stonehenge Down	Very High	DCO Scheme – Tunnel. Reduced impact of traffic: positive influence upon setting. Bored Tunnel Extension would have a positive influence upon the setting due to the removal of visual and aural impacts from traffic on the A303 and enhanced air quality.	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
AG19 Normanton Down Barrows								
AG19A Normanton Down Barrows – north								
NHLE 1008953 MWI12487 UID 3001	Long barrow 250m north of Normanton Gorse	Very High	DCO Scheme – Reduction in visible traffic. Positive influence upon setting. Bored Tunnel Extension – Tunnel. Positive impact on the setting due to the removal of traffic from the asset group's setting. Enhanced solstitial alignment due to the removal of traffic/light spill intrusion. Improvements to the westward, northward and eastward sightlines from the group. Views of traffic will be removed, traffic noise will be reduced and noise and air quality enhanced.	None proposed.	Negligible positive	Slight beneficial	Moderate positive	Large beneficial
NHLE 1012369 MWI 12999, MWI1300, MWI13001 UID 3002	Three bowl barrows immediately north of the A303 on Stonehenge Down				Negligible positive	Slight beneficial	Moderate positive	Large beneficial
NHLE 1012370 MWI12998 UID 3000	Bell barrow situated 50m north of Normanton Gorse and 170m south of the A303				Negligible positive	Slight beneficial	Moderate positive	Large beneficial
MWI75988 UID 3085	Circular anomaly, north of Normanton Gorse				Negligible positive	Slight beneficial	Moderate positive	Large beneficial
AG19B Normanton Down Barrows – central								
NHLE 1009614	Long barrow and 18 round barrows, forming the greater part of Normanton Down round barrow cemetery	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel. Reduced impact of traffic: positive influence upon setting. Bored Tunnel Extension – Tunnel. Positive impact on the setting due to the removal of traffic from the asset group's setting. Improvements to northward and eastward sightlines from the group. Views of traffic will be removed, traffic noise will	None proposed.	Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009615	Disc barrow forming part of the Normanton Down round barrow cemetery				Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009616	Bowl barrow forming part of the Normanton Down round barrow cemetery				Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009618	Bowl barrow known as 'Bush Barrow' and two disc barrows southeast of Normanton Gorse				Moderate positive	Large beneficial	Moderate positive	Large beneficial

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme: Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
	forming part of Normanton Down round barrow cemetery.		be reduced and noise and air quality enhanced.					
NHLE 1010330	Bowl barrow forming part of Normanton Down round barrow cemetery.				Moderate positive	Large beneficial	Moderate positive	Large beneficial
AG19C Normanton Down Barrows – south western								
NHLE 1009619	Bowl barrow 120m south of Normanton Down round barrow cemetery.	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel.	None proposed.	Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009620	Three bowl barrows 150m south of Normanton Down round barrow cemetery.		Reduced impact of traffic: positive influence upon setting.		Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009621	Long barrow 350m south west of the Normanton Down round barrow cemetery.		Bored Tunnel Extension – Tunnel.		Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009622	Bowl barrow south of Normanton Gorse on the southern edge of Normanton Down.		Positive impact on the setting due to the removal of traffic from the asset group's setting. Improvements to northward sightlines from the group. Views of traffic will be removed, traffic noise will be reduced and noise and air quality enhanced		Moderate positive	Large beneficial	Moderate positive	Large beneficial
NHLE 1009623	Bowl barrow 400m south of Normanton Gorse.				Moderate positive	Large beneficial	Moderate positive	Large beneficial
AG19D Normanton Down Barrows – south eastern								
NHLE 1009624	Two round barrows 300m south of Normanton Down round barrow cemetery.	Very High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel.	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1009625	Bowl barrow 700m north of Springbottom Farm.		Reduced impact of traffic: positive influence upon setting.		Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1010871	Bowl barrow forming part of a round barrow cemetery 350m north of Springbottom Farm buildings.		Bored Tunnel Extension – Tunnel.		Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1010872	Bowl barrow forming part of a round barrow cemetery 350m north of Springbottom Farm buildings.		Positive impact on the setting due to the removal of traffic from the asset group's setting. Improvements to northward sightlines from the group. Views of traffic will be removed, traffic noise will be reduced and noise and air quality enhanced.		Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1010880	Six bowl barrows forming the greater part of a round barrow cemetery on Wilsford Down.		These positive changes are tempered by distance.		Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1010885	Bowl barrow 450m north of Springbottom Farm.				Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
Discrete assets								
NHLE 1011708 MWI12760	Bowl barrow 100m southeast of the Diamond.	Very High	The DCO Scheme and Bored Tunnel Extension would both have a positive impact on the setting of the asset due to the removal of traffic from the asset's setting. Improvements to the northward sightlines from the asset's location. Views	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial

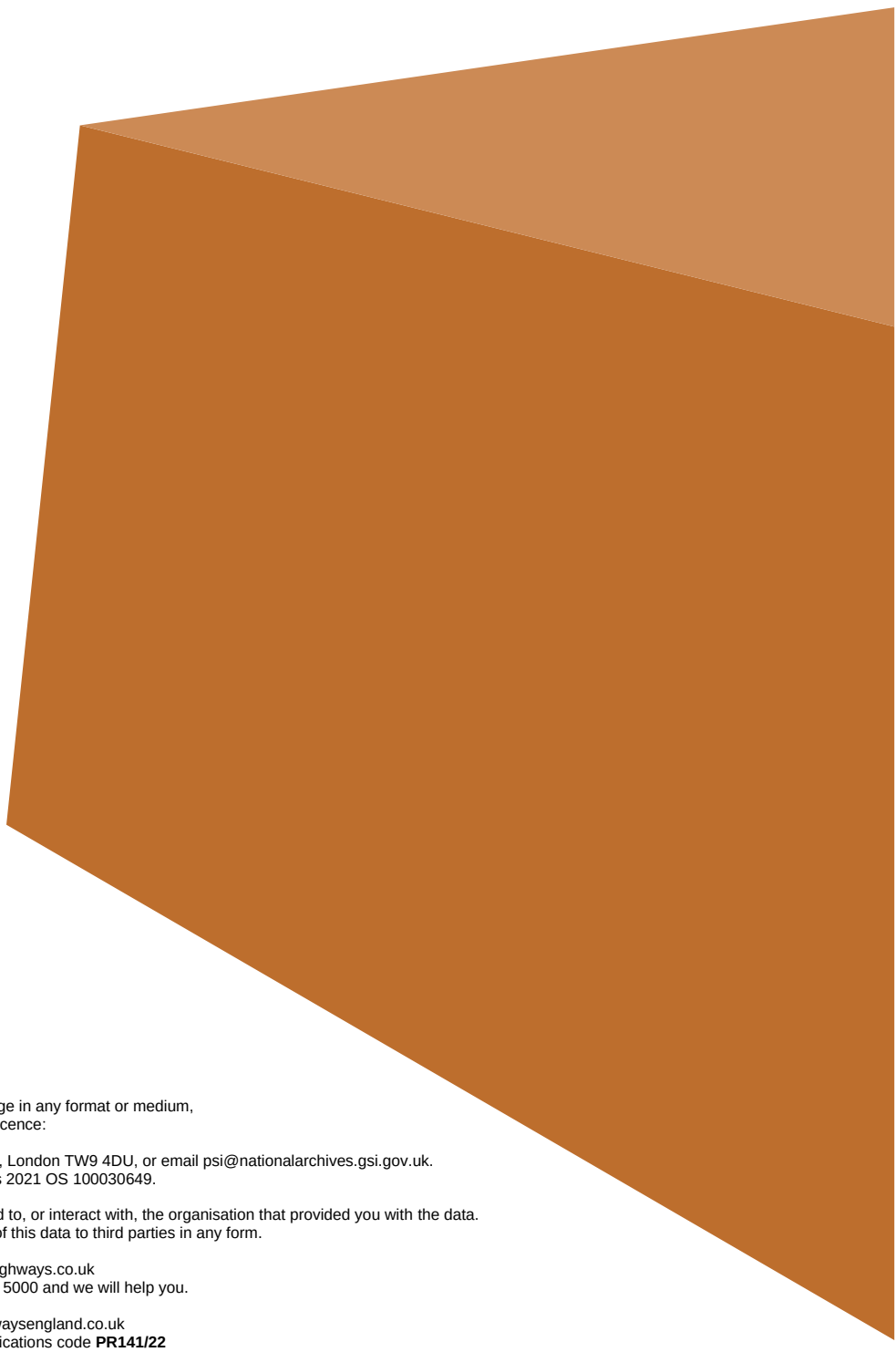
Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme: Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
			of traffic will be removed, traffic noise will be slightly reduced and noise and air quality enhanced.					
NHLE 1011709	Bowl barrow 450m east of the Diamond.	Very High	The DCO Scheme and Bored Tunnel Extension would both have a positive impact on the setting of the asset due to the removal of traffic from the asset's setting. Improvements to the northward sightlines from the asset's location. Views of traffic will be removed, traffic noise will be slightly reduced and noise and air quality enhanced.	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1012394 **MWI12966; MWI12967; MWI12968; MWI12969**	Four bowl barrows 140m north of the A303 on Stonehenge Down	Very High	The DCO Scheme and Bored Tunnel Extension would both have a positive impact on the setting of the asset due to the removal of traffic from the asset group's setting. Improvements to sightlines from the asset's location. Views of traffic will be removed, traffic noise will be slightly reduced and noise and air quality enhanced.	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1011048 **MWI6924; MWI7128; MWI7198**	Bronze Age enclosure and bowl barrow 100m west of Longbarrow Cross Roads on Winterbourne Stoke Down	Very High	The DCO Scheme and Bored Tunnel Extension would both have a positive impact to the setting of the asset due to the removal of traffic noise from the centre of the monument, reducing aural and visual impacts; severance will be removed. Bored Tunnel Extension – traffic emerging from the portal will introduce some negative aural intrusion into the setting of the monument.	None proposed.	Negligible positive	Slight beneficial	Major positive Minor negative Negligible negative	Slight beneficial
NHLE 1010831 **MWI12979**	Bowl barrow 400m west of Normanton Gorse	Very High	DCO Scheme – Cutting approach to western portal; tunnel Reduced impact of traffic: positive influence upon setting. Bored Tunnel Extension – Operation would result in positive changes on the setting of the asset due to the removal of views of traffic and light spill, a reduction in traffic noise and enhanced air quality.	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1010832 **MWI12542; MWI13002** **UID2018**	Bowl barrow south of the A303 and north west of Normanton Gorse	Very High	DCO Scheme – Cutting approach to western portal; tunnel Reduced impact of traffic: positive influence upon setting. Bored Tunnel Extension – Operation would result in positive changes on the setting of the asset due to the removal of views of	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme: Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
			traffic and light spill, a reduction in traffic noise and enhanced air quality.					
NHLE 1010833 MWI12519	Pond barrow south of the A303 and 400m west of Normanton Gorse containing the 'Wilsford Shaft'	Very High	DCO Scheme – Cutting approach to western portal; tunnel Reduced impact of traffic: positive influence upon setting. Bored Tunnel Extension – Operation would result in positive changes on the setting of the asset due to the removal of views of traffic and light spill, a reduction in traffic noise and enhanced air quality.	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1013812 MWI12980	Bowl barrow 350m south-west of Normanton Gorse	Very High	DCO Scheme – Cutting approach to western portal; tunnel Reduced impact of traffic: positive influence upon setting. Bored Tunnel Extension – Operation would result in positive changes on the setting of the asset due to the removal of views of traffic and light spill, a reduction in traffic noise and enhanced air quality.	None proposed.	Minor positive	Moderate beneficial	Minor positive	Moderate beneficial
NHLE 1008949 MWI7052	Bowl barrow 450m south-south-west of Airman's Corner on Winterbourne Stoke Down	Very High	Traffic will continue to use the existing A360 which will remain dominant within the setting of the asset during the operation of the DCO Scheme or Bored Tunnel Extension.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1008950 MWI7089	Bowl barrow 550m south of Airman's Corner on Winterbourne Stoke Down	Very High	Traffic will continue to use the existing A360 which will remain dominant within the setting of the asset during the operation of the DCO Scheme or Bored Tunnel Extension.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1011039 MWI12881	Bell barrow 450m south of A344 on Winterbourne Stoke Down	Very High	Traffic will continue to use the existing A360 which will remain dominant within the setting of the asset during the operation of the DCO Scheme or Bored Tunnel Extension.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1011040 MWI12880	Bowl barrow 400m south of A344 on Winterbourne Stoke Down	Very High	Traffic will continue to use the existing A360 which will remain dominant within the setting of the asset during the operation of the DCO Scheme or Bored Tunnel Extension.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1011041 MWI12883	Pond barrow 700m south of A344 on Winterbourne Stoke Down	Very High	Traffic will continue to use the existing A360 which will remain dominant within the setting of the asset during the operation of the DCO Scheme or Bored Tunnel Extension.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1011043	Bowl barrow 430m south of A344 on Winterbourne Stoke Down	Very High	Traffic will continue to use the existing A360 which will remain dominant within the	None proposed.	No change	Neutral	No change	Neutral

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme: Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
MWI12888			setting of the asset during the operation of the DCO Scheme or Bored Tunnel Extension.					
NHLE 1011044 **MWI12886**	Bowl barrow 600m south of A344 on Winterbourne Stoke Down	Very High	Traffic will continue to use the existing A360 which will remain dominant within the setting of the asset during the operation of the DCO Scheme or Bored Tunnel Extension.	None proposed.	No change	Neutral	No change	Neutral
NHLE 1010837 **MWI13131**	Linear boundary from south-east of Winterbourne Stoke crossroads to south-west of The Diamond on Wilsford Down	High	DCO Scheme – Main carriageway; cutting approach to western portal; western portal; tunnel (removal of present A303 surface road) Negative influence upon setting – traffic noise. Bored Tunnel Extension – Western Portal at chainage 6+150; western approach cutting; realigned A360 south (same as DCO Scheme). Reduced impact of traffic for the asset: positive influence upon setting.	None proposed.	Negligible negative	Slight adverse	Minor positive	Moderate beneficial
NHLE 1010838 **MWI13133**	Linear boundary within Normanton Gorse	High	DCO Scheme – Traffic noise remains similar, moving west into the cutting as opposed to being to the north. Bored Tunnel Extension – positive changes on the setting of the asset due to the removal of traffic noise and enhanced air quality.	None proposed.	No change	Neutral	Minor positive	Moderate beneficial
UID 2177/7092 **MWI76819**	'Anomaly 10000', small hengiform enclosure, south of A303, south-east of Winterbourne Stoke Clump	Very High	DCO Scheme – Traffic noise remains similar, moving south into the cutting as opposed to being to the north. Bored Tunnel Extension – positive changes on the setting of the asset due to the removal of traffic noise and enhanced air quality.	None proposed.	No change	Neutral	Moderate positive	Large beneficial
UID 2083 / Anomaly 029	Large pit-like feature	Very High (precautionary approach)	DCO Scheme – negligible negative change due to slight increase in traffic noise. Bored Tunnel Extension – negligible positive change due to the removal of traffic noise.	None proposed.	Negligible negative	Slight adverse	Negligible positive	Slight beneficial
Anomaly 030	Large pit-like feature – natural	Medium	DCO Scheme – negligible negative change due to slight increase in traffic noise. Bored Tunnel Extension – negligible positive change due to the removal of traffic noise.	None proposed.	Negligible negative	Neutral	Negligible positive	Neutral
Anomaly 031	Large pit-like feature	Very High (precautionary approach)	DCO Scheme – no change to traffic noise.	None proposed.	No change	Neutral	Negligible positive	Slight beneficial

Asset	Name and Description	Asset Value	Impact description	Design and Mitigation Measures	DCO Scheme: Impact Magnitude (post mitigation)	DCO Scheme: Residual Effect	Bored Tunnel Extension: Impact Magnitude (post mitigation)	Bored Tunnel Extension: Residual Effect
			Bored Tunnel Extension – negligible positive change due to the removal of traffic noise.					
Anomaly 032	Large pit-like feature	Very High (precautionary approach)	DCO Scheme – no change to traffic noise. Bored Tunnel Extension – negligible positive change due to the removal of traffic noise.	None proposed.	Negligible negative	Slight adverse	No change	Neutral
Anomaly 033	Large pit-like feature – natural	Medium	DCO Scheme – no change to traffic noise. Bored Tunnel Extension – negligible positive change due to the removal of traffic noise.	None proposed.	Negligible negative	Neutral	No change	Neutral

Illustrations



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