

A303 Amesbury to Berwick Down

TR010025

6.3 (4) Environmental Statement Appendix 2.2 – Outline Environmental Management Plan (OEMP) (TRACKED CHANGES)

APFP Regulation 5(2)(q)

Planning Act 2008

The Infrastructure Planning (Examination Procedure) Rules 2010

August 2019



Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Examination Procedure)

Rules 2010

A303 Amesbury to Berwick Down

Development Consent Order 20[**]

Outline Environmental Management Plan (OEMP)

Regulation Number:	Regulation 5(2)(q)
Planning Inspectorate Scheme Reference	TR010025
Application Document Reference	6.3 Appendix 2.2 (4)
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Version	Date	Status of Version
Rev 0	18 Oct 2018	First Issue
Rev 1	31 May 2019	Deadline 3 Issue
Rev 2	21 June 2019	Deadline 4 Issue
Rev 3	26 July 2019	Deadline 6 Issue
Rev 4	19 August 2019	Additional Submission

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1 Introduction

1.1 Purpose of the report

- 1.1.1 This document is the Outline Environmental Management Plan (OEMP) for the A303 Amesbury to Berwick Down Scheme (the Scheme). Powers to construct, operate and maintain the Scheme are being sought by Highways England through an application for a Development Consent Order (DCO).
- 1.1.2 An Environmental Impact Assessment (EIA) has been undertaken for the Scheme and an Environmental Statement (ES) has been prepared in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (EIA Regulations). In accordance with the requirements of the EIA Regulations, the ES contains the assessment of the potential impacts on the environment that may be caused during construction, operation and maintenance of the Scheme and describes proposed mitigation measures.
- 1.1.3 The purpose of this OEMP is to:
- a) Provide the equivalent of a Code of Construction Practice (CoCP), a suggested item for inclusion within the application for development consent (The Planning Inspectorate's Advice Note 6, Appendix 1). The scope of this OEMP is such that it includes all those measures that would be expected within such a CoCP.
 - b) Enable the Examining Authority and the Secretary of State to identify those mitigation measures proposed within the Scheme which are secured within this OEMP.
- 1.1.4 Measures within the OEMP include proposed design, construction and operational mitigation, which have been defined ~~in part~~ by the requirements which arise from the technical assessments presented in the ES, together with ongoing design development and stakeholder feedback. The technical assessments within the ES have taken account of the measures within the OEMP as 'embedded mitigation'. The mitigation measures incorporated in the Scheme design for inclusion in the EIA are shown on the Environmental Masterplan (refer to ES Figure 2.5).
- 1.1.5 The ES and the assessments within it are based on the works proposed in the DCO works plans and engineering sections and the maximum area of land anticipated as likely to be required, taking into account the proposed limits of deviation (LoD) for the Scheme, and the flexibility of detailed design provided for in the DCO. All distances, directions, areas and lengths referred to in this document are approximate.
- 1.1.6 The construction of the Scheme shall be subject to measures and procedures defined within Construction Environmental Management Plans (CEMPs) prepared for the relevant phase of the scheme by the relevant contractor. The CEMPs will be based on, and incorporate, the requirements of the OEMP relevant to that phase and the contractor's contractual scope and shall include the implementation of appropriate industry standard practice and control measures for environmental impacts arising during the relevant works.

- 1.1.7 The measures defined in the contractors' CEMPs will be applied by the contractors as stipulated in the relevant parts of the OEMP with the aim of controlling potential impacts upon the natural and historic environment, people and businesses.
- 1.1.8 All contractors will be required to comply with applicable environmental legislation together with any additional environmental controls imposed in the DCO. For this reason, the applicable statutory requirements are not stated within this OEMP.
- 1.1.9 The measures to be implemented in specific areas, such as soil handling and dust management, are set out in each discipline section of this OEMP within the Record of Environmental Actions and Commitments (REAC) tables included in Section 3.
- 1.1.10 For the purposes of the OEMP, the following definitions apply:
- a) **The Authority** is Highways England. The Authority, in consultation with the relevant stakeholders as set out in this OEMP, will approve the CEMPs, other management plans defined within this OEMP, detailed schemes required by the OEMP, and variations to these and other matters as stated within this OEMP.
 - b) A **contractor** means any contractor covered by this OEMP, namely any of the preliminary works contractors and the main works contractor.
 - c) The **main works contractor** is a contractor appointed by Highways England to deliver the main construction works (and shall also include any sub-contractors appointed by such main works contractor to carry out any part of the main construction works).
 - d) A **preliminary works contractor** is a contractor responsible for one or more elements of the preliminary works, which will be undertaken prior to the main construction works. These preliminary works are further defined within sections 1.2.9 and 1.2.10.
 - e) The **maintenance authority** is a body tasked with the maintenance of the Scheme once the Scheme is operational. Post-construction this will initially be the main works contractor, but in the longer term this would be either Highways England or Wiltshire Council, dependant on the component of the Scheme.
 - f) The **members of HMAG** are Historic England and Wiltshire Council as statutory consultees and the National Trust and English Heritage as major landowners and heritage managers in the WHS and references to **consultation with the members of HMAG** within this OEMP means consultation with each of those organisations in accordance with the procedure set out at PW-G1 in respect of the preliminary works and MW-G7, in respect of the main works. HMAG has been convened to advise Highways England on evaluation, assessment and mitigation with the WHS. HMAG is advised by a Scientific Committee of independent specialists and experts. The Terms of Reference of both HMAG and the Scientific Committee are published on the Scientific Committee's website: <http://www.a303scientificcommittee.org.uk/terms-of-reference>.

- 1.1.11 It is anticipated that the CEMP for the main works will be revised as necessary during the construction phase by the main works contractor, in line with the principles of this OEMP for approval by The Authority, in consultation with the relevant stakeholders as set out in this OEMP. However, as a minimum, the CEMP for the main works will be revised annually to ensure it is kept up to date.
- 1.1.12 Towards the end of the construction phase, the main works contractor will prepare a final version of the CEMP for the operational and maintenance phase of the Scheme, in the form of a Handover Environmental Management Plan (HEMP), again subject to The Authority approval, in consultation with the relevant stakeholders as set out in this OEMP. This will then be implemented by the maintenance authority responsible for the maintenance of the Scheme during the operational phase.
- 1.1.13 This version of the OEMP, ~~submitted at Deadline 4 of the DCO Examination process,~~ includes updates and clarifications arising from ongoing engagement with stakeholders, in response to Interested Parties' ~~Written Representations and discussions at the June hearings,~~ representations throughout the Examination, and the Examination Authority's second round of Written Questions. Consequently, this version of the OEMP supersedes the OEMPs originally submitted with the DCO application and at Deadline 36.

1.2 The Project and Evolution of the OEMP

Need for the Scheme

- 1.2.1 The Scheme forms part of a programme of improvements for upgrading 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 (2015-2020). Subject to achieving an approved DCO, preliminary works are planned to start in 2020 with the main construction works following in 2021, and the Scheme is due to open to traffic in 2026.
- 1.2.2 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):
- a) Transport - To create a high quality reliable route between the South East and the South West that meets the future needs of traffic;
 - b) 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.
 - c) Cultural Heritage - To help conserve and enhance the World Heritage Site and to make it easier to reach and explore; and
 - d) Environment and Community - To improve biodiversity and provide a positive legacy for nearby communities.

Evolution of the Design and OEMP

- 1.2.3 The development of the Scheme design has been, and will continue to be, based on the Design Vision described in Section 4.2. The Design Vision represents a holistic approach to design seeking to achieve the Scheme objectives while considering heritage, environmental, safety, social and economic impacts. Implicit in this approach have been the engineering and buildability requirements of the Scheme.
- 1.2.4 Specifically, in light of objective c) above – Cultural Heritage - the Scheme has been developed with due consideration of the aims and policies of the Stonehenge, Avebury and Associated Sites WHS Management Plan 2015. Going forward, the detailed design of the Scheme shall continue to give due consideration to the aims and plans of the WHS Management Plan.
- 1.2.5 During options identification and selection and the subsequent development of the DCO design, a Heritage Monitoring and Advisory Group (HMAG) was convened to advise Highways England. The HMAG comprises a number of historic environment professionals who have an ongoing statutory or formal advisory role in the WHS. The Group comprises Historic England, Wiltshire Council (Archaeology Service), English Heritage and the National Trust and was tasked with providing independent heritage advice to Highways England on the project. HMAG members have been consultedengaged throughout the development of the Scheme design, holding regular monthly meetings, inputting to design meetings and reviewing heritage documentation as appropriate.
- 1.2.6 Through this regular engagement, the members of HMAG have been a party to and contributed to the development of the Design Principles and Design Commitments that are presented within this OEMP.
- Design **Principles** have driven the development of the DCO Design and will continue to inform the detailed design pursuant to the Vision. The Design Principles are discussed in Chapter 4 and presented in Table 4.1;
 - Design **Commitments** represent specific items that have already been agreeddiscussed with HMAG (as appropriate) and are committed components of the Scheme and its construction. ~~As such no further consultation with HMAG is required on these issues.~~ The Design Commitments are included in Table 3.2b with a D- precursor (e.g. D-CH1).

Brief outline of the proposed works

- 1.2.7 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 Stonehenge, Avebury and Associated Sites World Heritage Site (WHS). The Scheme would be approximately 8 miles (13km) long and comprise the following key components:
- a) A northern bypass 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 WHS, replacing the existing Longbarrow roundabout;
- c) A twin-bore tunnel approximately 2 miles (3.3km) long, past Stonehenge; and
- d) A new junction between the A303 and A345 at the existing Countess roundabout.

1.2.8 Further details of the Scheme are given within Chapter 2 of the ES.

Preliminary works

- 1.2.9 The preliminary works are planned to start in 2020, in advance of the appointment of a main works contractor. To achieve this programme, it is necessary to cater for the preparation of CEMPs applying to these preliminary works in advance of the CEMP for the main works, which will be prepared as part of the appointment of the main works contractor.
- 1.2.10 The preliminary works would consist of archaeological and ecological mitigation works, remedial work in respect of any contamination or other adverse ground conditions, erection of temporary fencing, diversion and laying of underground apparatus, site clearance and the two sections of highways works noted in Table 1.1. All other works not listed here are considered as 'main works'.

Table 1.1: List of proposed preliminary highway works under the DCO

Preliminary works	Envisaged activities
Rollestone Crossroads highway improvement	The works are described in Work No.5 of Schedule 1 to the draft DCO, and shown on the Works Plans and the Engineering Section Drawings (Plan and Profiles), with the design shown illustratively on Sheet 13 of the General Arrangement Plans.
Minor highway works east of Solstice Park	The works are described in Work No. 1H (viii) - (xiv) and Work No. 7 of Schedule 1 to the draft DCO, and shown on the Works Plans and the Engineering Section Drawings (Plan and Profiles), with the design shown illustratively on Sheet 11 of the General Arrangement Plans.

- 1.2.11 For the avoidance of doubt, the controls set out in [Table 3.2a of](#) this OEMP relate to preliminary works carried out pursuant to the powers set out in the DCO, and so do not apply to any works carried out outwith the ambit of the Order (including those commenced prior to the making of the Order) using Highways England's pre-existing statutory powers.

Programme

- 1.2.12 The main construction works are currently planned to commence in 2021 with the Scheme due to open to traffic in 2026. The programme includes key target milestones, and those relevant to the OEMP are defined in Table 1.2.

Table 1.2: Key target milestones relevant to the OEMP¹

Milestone	Target Date
Secretary of State DCO Decision	April 2020
DCO Judicial Review period ends	May 2020
Land entry dependent on the DCO	June/July 2020
Start of DCO preliminary works	June/July 2020
Start of main works	October 2021
Full Scheme open to traffic	2026

1.2.13 Whilst these target dates indicate sequential phasing, some phases may overlap both in space and in time, for example:

- a) Preliminary works could still be being undertaken by a preliminary works contractor in some locations, whilst site establishment for the main works construction is being progressed by a main works contractor in other locations; and
- b) it is possible that some parts of the Scheme, e.g. the Winterbourne Stoke bypass and Countess Flyover could already be operational whilst other elements, such as the tunnelled section, would still be under construction.

1.2.14 There are no implications for the implementation of the OEMP from these overlaps as each contractor would be working under the provisions of the CEMP for their own scope of work.

1.2.15 As the preliminary works are programmed to commence soon after the DCO is made (subject to access to land); the measures set out in this OEMP in relation to those works (Table 3.2a) are, in some cases, more detailed than those set out in Table 3.2b which relates to the main works. As such, the specific measures set out in that table will be required to be included in the CEMP for the preliminary works, unless otherwise agreed by The Authority, in consultation with the relevant stakeholders as set out in this OEMP.

1.3 Structure of this document

1.3.1 The remainder of this document is structured as follows:

- a) Section 2: Roles and responsibilities. This section defines the roles which a contractor will identify within the CEMP, in order to deliver the environmental commitments.
- b) Section 3: Record of Environmental Actions and Commitments (REAC) tables. This section identifies the environmental commitments to address the potential environmental effects of the preliminary works (Table 3.2a) and the main works, including commitments to certain key items of embedded mitigation and Scheme design (Table 3.2b). As discussed above, the specific measures set out in 3.2a will form part of the CEMP for

¹ Dates have been updated due to the initially programmed examination start date of February 2019 having changed.

the preliminary works. The CEMP developed by the contractor for the main works must be developed in accordance with the principles set out in Table 3.2b.

- c) Section 4: Development of Detailed Design. This section describes the Design Vision, identifies (in Table 4.1) key Design Principles which will inform the detailed design of the Scheme and outlines how the Authority will involve key stakeholders in the detailed design of certain key aspects of the Scheme.

1.3.2 This OEMP appends an Environmental Constraints Plan (Annex A.1), a visual aid showing the relationship between the CEMPs and other management plans (Annex A.2), including the Detailed Archaeological Mitigation Strategy (DAMS), and an ~~outline~~Outline Soils Management Strategy (Annex A.3).

1.3.3 The DAMS makes provision for a number of further documents that are designed to ensure that all preliminary and main works will be carried out with protections that are appropriate to the sensitive area in which they take place. The DAMS includes an Outline Written Scheme of Investigation, developed in consultation with the members of the Heritage Monitoring and Advisory Group (HMAG²), Historic England and Wiltshire Council Archaeological Services (WCAS) and is intended to be a certified document in the DCO.

1.3.4 Furthermore, the DAMS requires the appropriate contractor to develop a Heritage Management Plan, method statements, and where appropriate, site specific written schemes of investigation.

1.3.5 The provisions of the CEMPs and the management plans required by this OEMP must be consistent and coordinated with the provisions of the DAMS.

² Comprising of Historic England, the National Trust, Wiltshire Council Archaeology Service and English Heritage

2 Project team roles and responsibilities

Site roles and responsibilities

- 2.1.1 The project team roles, identified in Table 2.1, define the responsibilities associated with the roles for construction, including both the preliminary works and the main construction works, that the relevant contractor must establish and maintain. The responsibilities defined in the table include those relating directly to the development and implementation of the CEMP and the wider environmental responsibilities. The preliminary works contractors and the main works contractor will be required to delegate responsibilities to onsite personnel within key areas of the site and compounds. The delegation of responsibility will be clearly identified within relevant documents and site files.
- 2.1.2 Individual names and contact details will need to be confirmed and inserted where applicable by The Authority and the contractor once appointed. The contractor shall establish a management structure that includes an organisational chart encompassing all staff responsible for delivery of environmental mitigation measures and shall include this chart within the CEMP. The chart will set out the respective roles and responsibilities with regard to the environment (refer to Table 3.2b, MW-G19).
- 2.1.3 It is anticipated that prior to the commencement of each phase of the project, individuals would be identified to fulfil the relevant roles, and that as the CEMP is developed for each phase, and ultimately as the HEMP for each phase is produced, the roles and responsibilities would be further defined and clarified upon each iteration. For the preliminary works, it is unlikely that all roles shown in Table 2.1 would be relevant or justifiable and in preparing a CEMP for this work phase, a preliminary works contractor shall prepare a revised (reduced) version of the table, scoped in agreement with The Authority, in consultation with the relevant stakeholders as set out in this OEMP, to the extent of their contractual responsibilities.

Table 2.1: Roles and responsibilities during construction

Role	Responsibilities
<p>The Authority</p>	<p>CEMP responsibilities:</p> <ul style="list-style-type: none"> • Approval of document, related Management Plans defined within this OEMP and any detailed schemes required by this OEMP.

Role	Responsibilities
<p>Archaeological Clerk of Works (ACoW) (The Authority)</p>	<p>CEMP responsibilities:</p> <ul style="list-style-type: none"> • Review of relevant sections of the CEMP prepared by the contractor’s Environmental Manager. • Responsible for monitoring all archaeological elements of the CEMP during construction. • Reviews the contractor’s Heritage Management Plans (HMP). • <u>Liaise with and provide guidance for contractors in relation to the requirements of the DAMS.</u> <p>Overall responsibilities:</p> <p>Monitoring the relevant contractor/s compliance with their contractual obligation to ensure that the Scheme complies with all archaeological and historic environment legislation and consents, including the DCO and those arising from the ES throughout the relevant project phase.</p> <p>The ACoW will:</p> <ul style="list-style-type: none"> • Coordinate archaeological site works. • Facilitate access and monitoring arrangements with relevant heritage stakeholders. • Monitor compliance by the contractor/s with their HMPs. • Give Tool Box Talks, where required, to inform all site personnel of the archaeological and historic environment constraints on site, the protection measures that are required and their obligations under this OEMP and generally to ensure that these are put in place and complied with <u>OBJ</u>. • Monitor the contractor/s<u>contractor’s</u> compliance with their obligations to ensure that the CEMP, the contractor’s HMPs and any requirements of the DAMS are carried out. • <u>Monitor fieldwork at all stages to ensure consistency of approach between archaeological contractors.</u> • Monitor the contractor/s’ compliance with their obligations to ensure that protection measures are in place and maintained appropriately throughout the construction period in compliance with the contractor’s HMPs, the DAMS and relevant SSWSIs. • Provide <u>monitoring</u> feedback to heritage stakeholders <u>during site meetings, including compliance/non-compliance issues and how these are being resolved with respect to the DAMS.</u>

Role	Responsibilities
<p>Project Manager³ (PM) (all contractors)</p>	<p>CEMP responsibilities:</p> <ul style="list-style-type: none"> • Review the CEMP, <u>(and any revisions)</u>, prepared by the Environment Manager (EM), for the relevant phase of works. • Ensure that all controls specified within the CEMP are implemented by employees and sub-contractors. <p>Overall environmental responsibilities: Responsible for the delivery of the relevant phase of the scheme. Has overall responsibility for the environmental performance of the relevant phase and all staff. The PM will be required to:</p> <ul style="list-style-type: none"> • Provide information on contract requirements to the EM following contract award and prior to start of works on site. • Ensure environmental and waste requirements are included on requisitions and in subcontracts and orders. • Ensure that all required consents/licences are in place in line with the relevant project phase. • Log and monitor incidents and non-compliances. Report incidents and non-compliances to The Authority at the earliest possible opportunity. • Ensure that The Authority is informed of all environmental complaints. • Provide an initial point of contact for members of the public/local community who have queries regarding the works. • Ensure employees and sub-contractors receive Induction Training (including environmental) and tool box talks, as appropriate. • Verify actions resulting from non-compliances and observations raised during audits are completed by the deadlines set. • Undertake inspections alongside the EM to ensure that the environmental controls as set out within the CEMP are in place and working effectively. • Ensure all records are retained and readily available on site.

³ 'Project Manager' is here defined as the senior individual (not organisation) performing the senior leadership role for the applicable phase of the project, preliminary works, main works or operation / maintenance as relevant. During 'main works construction', this role might be the 'Construction Manager'.

Role	Responsibilities
<p>Environment Manager (EM) (all contractors)</p>	<p>CEMP responsibilities:</p> <ul style="list-style-type: none"> • Prepare the CEMP relevant to the phase of the project, based on the OEMP. • Undertake site inspections to monitor compliance with the environmental licences/consents for the works and the measures within the CEMP. • Prepare any changes to the CEMP in consultation with the contractor’s PM. • Maintaining and updating the CEMP on an ongoing basis as required during the relevant project phase. • Manage the delivery of the various management plans defined within the appendices of this OEMP, using appropriate technical expertise as required. • Manage the delivery of the monitoring required under the CEMP, alongside relevant specialists, and reporting to relevant stakeholders at a frequency to be defined in the CEMP. • <u>If required, report on how the effects of multiple CEMPs do not combine to produce any materially new or materially worse adverse environmental effects on sensitive heritage assets to those reported in the ES.</u> • <u>Liaise with the ACoW to ensure compliance with the DAMS.</u> <p>Overall responsibilities: Responsible for ensuring that the Scheme complies with all environmental legislation, consents, objectives, targets and other environmental commitments, including those arising from the ES throughout the relevant project phase. The EM will be required to:</p> <ul style="list-style-type: none"> • Provide toolbox talks and environmental inductions to all staff involved in the relevant phase of the Scheme. • Deal with queries and correspondence on environmental issues. • Approve by way of sign off, that the environmental elements of the Scheme have been created and maintained in accordance with the OEMP and CEMP to the appropriate standard. • Implement follow-up corrective actions to ensure compliance with UK regulations and legislation. • Keep record of all activities on site, environmental problems identified, transgressions noted and a schedule of all tasks undertaken. • Provide appropriate professional and practical advice to contractors, consultants and project team members associated with environmental and ecological issues and where appropriate resolve issues in a practical and efficient way. <p>Preliminary works contractor responsibilities: For the preliminary works contractors, the responsibilities of the ECoW and CRM set out below may be undertaken by the EM as appropriate.</p>

Role	Responsibilities
Ecological Clerk of Works (ECoW) (main works contractor)	<p>CEMP responsibilities:</p> <ul style="list-style-type: none"> • Review of relevant sections of the CEMP. • Responsible for ensuring that all ecological elements of the CEMP are complied with. • Ensure that the effects of multiple CEMPs do not combine to produce adverse effects on biodiversity. • Preparing the Landscape and Ecology Management Plan ((LEMP) refer to MW-LAN1) together with the Landscape Specialist. • <u>Liaise with the ACoW to ensure compliance with the DAMS.</u> <p>Overall responsibilities: Responsible for ensuring that the Scheme complies with all ecological legislation and consents, including the DCO and those arising from the ES throughout the relevant project phase. The ECoW will be required to:</p> <ul style="list-style-type: none"> • Ensure compliance with DCO Requirement 6. • Undertake watching briefs during site clearance activities, to ensure that any unanticipated discoveries of notable flora and fauna are appropriately dealt with. • Approve by way of sign off, that the ecological elements of the Scheme have been created and maintained in accordance with the CEMP to the appropriate standard. • Monitor works during construction at sensitive sites, including but not limited to, Parsonage Down National Nature Reserve (NNR), the River Till Site of Special Scientific Interest (SSSI) and the River Avon Special Area of Conservation (SAC) and the Salisbury Plain SAC and Special Protection Area (SPA). • Monitor and provide guidance in respect of the LEMP during the creation of these habitats. • Give Tool Box Talks, where required, to inform all site personnel of the ecological constraints on site.
Landscape Specialist (main works contractor)	<p>CEMP responsibilities:</p> <ul style="list-style-type: none"> • Review of relevant sections of the CEMP, when prepared by the EM. • Responsible for ensuring that landscape elements of the CEMP are complied with during construction. • Prepare the LEMP (Refer to MW-LAN1) together with the ECoW <u>and the ACoW.</u> <p>Overall responsibilities:</p> <ul style="list-style-type: none"> • Monitors and provides guidance in respect of the LEMP during the creation of these habitats. • Approve by way of sign off, that the landscape elements of the Scheme have been created and maintained in accordance with the OEMP and CEMP to the appropriate standard.

Role	Responsibilities
<p>Arboricultural Specialist (main works contractor)</p>	<p>CEMP responsibilities:</p> <ul style="list-style-type: none"> • Review of relevant sections of the CEMP, when prepared by the EM. • Responsible for ensuring that the elements of the CEMP related to tree works are complied with during construction. • Prepare the Arboricultural Mitigation Strategy for the main works. • <u>Liaise with the ACoW to ensure compliance with the DAMS.</u> <p>Overall responsibilities:</p> <ul style="list-style-type: none"> • Monitors and provides guidance in respect of the LEMP during the creation of these habitats, with specific reference to tree establishment. • Approves, by way of sign off, that the area of tree and scrub planting have been established and maintained in accordance with the OEMP and CEMP to the appropriate standard.

Role	Responsibilities
<p>Traffic Control Officer (main works contractor)</p>	<p>CEMP responsibilities:</p> <ul style="list-style-type: none"> • Review of relevant traffic sections of the document. • <u>Prepare a Traffic Management Plan (TMP) including a Construction Workforce Travel Plan, a Site Access Plan, construction traffic routing details and a Site Travel Plan) and submitting this for approval by The Secretary of State, in consultation with Wiltshire Council.</u> • <u>Liaise with the ACoW to ensure compliance with the DAMS.</u> <p>Overall responsibilities: The Traffic Control Officer will ensure compliance with the contractor's TMP in accordance with DCO Schedule 2, Requirement 9 (2). Additional responsibilities will include:</p> <ul style="list-style-type: none"> • Manage and implement traffic management measures identified within the TMP (see MW-TRA2). • Ensure contractors and supply chain are aware of the routes and measures approved as part of the plans outlined within items MW-TRA2 – MW-TRA5 and monitoring compliance with those routes and plans. • Ensure compliance with all relevant health and safety directives in liaison with the main works contractor's Health and Safety Manager, relating to operations and live traffic. • Manage the layout and signing of site access and egress points for all construction sites and compounds. • Arrange for site inspections at regular intervals, equipment attended to and maintained, and in the case of accidents or incidents having replacement signs, cones, bollards and lights and the like erected without delay. • Maintain a log of all complaints received in relation to traffic during Scheme construction. • Organise regular progress meetings to include Wiltshire Council, Wiltshire Police, other emergency services, the Ministry of Defence and English Heritage. • Attend the Solstice Operational Planning meetings with English Heritage.

Role	Responsibilities
<p>Site Materials and Waste Manager (main works contractor)</p>	<p>CEMP responsibilities:</p> <ul style="list-style-type: none"> • Review of relevant sections of the CEMP, when prepared by the EM. • Responsible for ensuring that all materials and waste elements of the CEMP are complied with during construction. • Prepare the Site Waste Management Plan (SWMP). • Responsible for ensuring that a Materials Management Plan (MMP) is prepared. • <u>Liaise with the ACoW to ensure compliance with the DAMS.</u> <p>Overall responsibilities:</p> <ul style="list-style-type: none"> • Responsible for implementing the SWMP throughout the construction of the Scheme and to ensure that waste is disposed of economically and safely in line with the SWMP.

Role	Responsibilities
<p>Community Relations Manager (CRM) (main works contractor)</p>	<p>CEMP responsibilities:</p> <ul style="list-style-type: none"> Review of relevant sections of the document. <p>Overall responsibilities: Communications with the public, non-agricultural landowners, stakeholders and other interested parties, outreach and education, where appropriate. The role will include the following responsibilities:</p> <ul style="list-style-type: none"> Respond to any concerns or complaints raised by the public in relation to the works. Liaise with the PM and EM on community and stakeholder concerns relating to the works and act as the main interface with the community and other stakeholders, alongside any The Authority presence that is required; Maintain a log of complaints relating to the environment. Ensure that the PM and the EM are informed of any complaints relating to the environment. Keep the public informed of project progress and any construction activities that may cause inconvenience to local communities. Engage with local schools and colleges to inform pupils and students about the Scheme, advise on careers within the construction industry and point out the dangers of trespassing on construction sites. Ensure that the needs of groups with protected characteristics as identified within the Equality Act 2010 are considered during the construction process.
<p>Agricultural Liaison Officer (ALO) (main works contractor all contractors)</p>	<p>CEMP responsibilities:</p> <ul style="list-style-type: none"> <u>Review and action relevant sections of the CEMP which to apply to agricultural businesses likely to be affected by the Scheme.</u> <u>Liaise with the ACoW to ensure compliance with the DAMS.</u> <p>Overall responsibilities: Communications with landowners and occupiers running agricultural businesses likely to be affected by the Scheme (owner/occupiers) and their agents. The role will include the following responsibilities:</p> <ul style="list-style-type: none"> Liaise with owner/occupiers to establish <u>regarding:</u> <ol style="list-style-type: none"> measures to be implemented to maintain livestock water supplies which may be affected due

Role	Responsibilities
	<p style="padding-left: 40px;">to construction works;</p> <p style="padding-left: 40px;">ii. fencing requirements both during and post-construction; <u>and</u></p> <p style="padding-left: 40px;">iii. locations of potential carcass burial sites.</p> <ul style="list-style-type: none"> • Coordinate land drainage surveys and share pre- and post-construction land drainage schemes with owner/occupiers in advance in finalisation for their consideration; • <u>Liaise with landowners prior to any proposed discharges to existing drains;</u> • Coordinate the provision of a detailed pre-construction condition survey to include soil surveys of owner/occupiers' land; • <u>Provide preconstruction survey information to landowners including company name, survey type and equipment to be used;</u> • Advise the contractor on risks relating to the translocation of soil diseases and ensuring appropriate protective provisions are implemented; • Ensure that owner/occupiers are consulted in respect of requirements relating to field entrances and accesses across the Works and land-locked or severed land parcels; • <u>Liaise with affected landowners/occupiers about activities which may affect their land/business prior to public release of information;</u> • <u>Liaise with the affected landowners/occupiers regarding balancing pond locations;</u> • <u>Liaise with the affected landowners/occupiers regarding gate design where agricultural access is required;</u> • <u>Liaise with private water abstractors should any pollution incidents occur which may impact on private water supplies;</u> • Arrange quarterly meetings with agent representatives of owner/occupiers; • Undertake pre-construction and day-to-day discussions with affected owner/occupiers to minimise disruption, where possible, to existing farming regimes and timings of activities; • Undertake site inspections during construction to monitor working practices and compliance of the contractor/s with their obligations to owner/occupiers under this OEMP; and • Liaise on reinstatement measures following completion of the works. <p>Appointment, experience and timeframes:</p> <ul style="list-style-type: none"> • The ALO will be shall be appointed by the main works contractor prior to the commencement of the main works. There may be more than one ALO if required. • The ALO will have relevant experience of working with landowners and agricultural businesses and will have knowledge of the compulsory acquisition process (if required) and working on a linear infrastructure

Role	Responsibilities
	<p>project.</p> <ul style="list-style-type: none"> • Post-construction the ALO will remain in place for up to one year to manage remediation issues. • After that year the main works contractor shall ensure that ongoing contact details are provided in order for landowners and occupiers to seek consent, if required, in respect of restrictive covenants for the lifetime of the project or to highlight any defects. Information in relation to the process of management of restrictive covenants shall be issued to landowners and occupiers upon any change in the person/s responsible for the process on behalf of The Authority.
<p>All Site Staff (all contractors)</p>	<p>CEMP responsibilities:</p> <ul style="list-style-type: none"> • Ensure all environmental policies, procedures and rules as set out in the CEMP are adhered to. • Organise work to be carried out to the required standard with the aim of minimum risk to the environment. All site personnel to receive instructions on their responsibilities to ensure correct environmental practice in line with the CEMP. <p>Overall responsibilities:</p> <p>To receive general environmental awareness training and undertake work in accordance with all works Method Statements and Tool Box Talks. Only trained personnel are to manage particular tasks such as refuelling plant and equipment, managing the stores, water quality monitoring and supervising the segregation and collection of waste. The responsibilities of all staff on site throughout the construction of the works will include the following:</p> <ul style="list-style-type: none"> • All staff are to be appropriately trained to carry out their respective tasks. • Adhere to legislation and where appropriate codes of practice and guidance notes relevant to their work.

3 Record of Environmental Actions and Commitments (REAC)

3.1 Introduction

- 3.1.1 The REAC, contained in Tables 3.2a and 3.2b identifies the environmental commitments proposed to address the potential environmental effects of the preliminary works and the main works.
- 3.1.2 The REAC tables will be updated by a contractor when the contractor prepares the CEMP relevant to their scope of works and then as required as the Scheme progresses. Each CEMP or update will be prepared in accordance with the principles of the original OEMP and will require approval from The Authority, following consultation with the relevant stakeholders as set out in this OEMP (see Table 3.2a PW-G1 for preliminary works and Tables 3.2b MW-G5 and MW-G6 for main works).
- 3.1.3 The extant version of the CEMP at the end of each construction phase will be developed by the contractor into a HEMP relevant to that construction phase (see Table 3.2b MW-G11). Once all construction phases are complete a consolidated HEMP will be produced, which will then be the main document containing essential environmental information passed to The Authority and to the maintenance authority responsible for the future maintenance of the Scheme once it is operational.

3.2 Guide to the REAC tables

- 3.2.1 The tables do not define general legislative requirements. It is assumed that in addition to compliance with the measures in this table, all activities will comply with applicable legislation.
- 3.2.2 Table 3.1 provides a summary of the scope of each column within the REAC tables.

Table 3.1: Explanatory guide to REAC table columns

Column	Explanation
Reference (Ref.).	<p>A unique identifier defined within these REAC tables to enable simple reference to individual measures. Each unique identifier is made up of a combination of the below descriptors:</p> <ul style="list-style-type: none"> • PW = Preliminary Works • MW = Main Works • D = design commitment <p>with the following topic areas:</p> <ul style="list-style-type: none"> • G = general provisions • AIR = air quality • CH = cultural heritage • LAN = landscape and visual • BIO = biodiversity • NOI = noise and vibration • GEO = geology and soils • WAT = water environment • MAT - materials • COM = people and communities • TRA – traffic management
Source Reference (Source Ref.)	<p>An identifier which is directly relevant to the action or commitment, for example a source such as a mitigation reference in the ES.</p> <p>Where no Source Reference is given, the measure is normally one which is relevant across a range of technical areas and is a broader control measure (e.g. Working Hours).</p>
Action / commitment (including specific location and any monitoring required)	<p>The action that is required is defined.</p> <p>The location for the action is Scheme wide, unless otherwise stated.</p> <p>Any monitoring that is required in relation to the action is defined.</p>
Reporting criteria	<p>The criteria which define the successful implementation of the action, such as a document approval which confirms the action has been undertaken</p>
Responsible person(s)	<p>The person or body responsible for delivery of the action; this will often be the contractor</p>

3.2.3 In order to provide for future flexibility and unless otherwise stated, the REAC tables do not typically define how the action is to be implemented or achieved, and do not consider the risk management of individual items, unless these elements are implicit within the action.

3.2.4 The references to guidance documents within the REAC tables are not intended to be exhaustive and in preparing the CEMP and related topic specific plans, the contractor shall have due regard to any relevant technical guidance in individual subject areas and draw upon and reference these as appropriate.

3.2.5 The REAC tables are presented in two parts and defined further in the sub-sections that follow:

a) Table 3.2a - preliminary works

b) Table 3.2b - main works

Table 3.2a - preliminary works

- 3.2.6 This table includes those actions to be incorporated into the preliminary works for the Scheme by the relevant 'preliminary works contractor'.
- 3.2.7 The preliminary works are likely to be undertaken by a number of 'preliminary works contractors', including but not limited to contractors for utilities, ground investigation, roads, archaeology and ecology. Within Table 3.2a, the term 'preliminary works contractor' does not denote a single entity. Where individual actions are relevant to a limited number of the preliminary works contractors, this is denoted as appropriate. The terms preliminary works contractor (ecology), preliminary works contractor (archaeology), preliminary works contractor (utilities), preliminary works contractor (roads) and preliminary works contractor (ground investigation) are used to denote likely owners of actions, though these will be defined further by contractual requirements.
- 3.2.8 In preparing a CEMP for the extent of their works and contractual extent, each preliminary works contractor should review the Table 3.2a in its entirety and justify the CEMP as consistent with the principles of the OEMP to the satisfaction of The Authority. Where actions are modified or excluded, this should be justified as consistent with the principles of the OEMP to the satisfaction of The Authority. Each CEMP requires the approval of The Authority, in consultation with the relevant stakeholders as set out in this OEMP.

Table 3.2b - main works

- 3.2.9 Table 3.2b includes those actions to be incorporated into the main works for the Scheme and where relevant the operation and maintenance of the Scheme by the 'main works contractor' or the 'maintenance authority'.
- 3.2.10 In preparing a CEMP for the main works, the main works contractor or the maintenance authority shall update the full REAC table for main works (Table 3.2b). Where actions are modified, this should be justified as consistent with the principles of the OEMP to the satisfaction of The Authority. Each CEMP requires the approval of The Authority, in consultation with the relevant stakeholders as set out in this OEMP.

3.3 Record of Environmental Actions and Commitments (REAC)

Table 3.2: REAC contents

Content subject	Item Number	Page Number
Table 3.2a: REAC tables for the preliminary works		
General provisions	PW-G1 – PW-G6	23-25 <u>24-27</u>
Air Quality	PW-AIR1	25 <u>27</u>
Cultural Heritage	PW-CH1 – PW- CH5 <u>CH6</u>	25-28 <u>27-29</u>
Landscape and Visual	PW-LAN1 – PW-LAN3	28-29 <u>30</u>
Biodiversity	PW-BIO1 – PW-BIO11	29-33 <u>30-34</u>
Noise and Vibration	PW-NOI1 – PW-NOI6	33 <u>34-37</u>
Geology and Soil	PW-GEO1 and PW-GEO3	37-38
Water Environment	PW-WAT1 – PW-WAT3	38- 39
People and Communities	PW-COM1 PW-COM3	38-39 <u>40</u>
Traffic Management	PW-TRA1	39 <u>40</u>
Table 3.2b REAC tables for the main works		
General Provisions – EMS and CCS	MW-G1 – MW-G4	40
General Provisions – CEMP and Related Plans, Method Statements	MW-G5 – MW-G11	40- 43 <u>45</u>
General Provisions – Working Hours	MW-G12 – MW-G16	43-45 <u>46-48</u>
General Provisions – Personnel and Training	MW-G17 – MW-G19	45-46 <u>48</u>
General Provisions – Emergency Preparedness and Incident Records	MW-G20 – MW-G25	46-47 <u>48-49</u>
General Provisions – Site Management	MW-G26- MW-G30	47-49 <u>50-51</u>
General Provisions – Community Engagement, Coordination	MW-G31 and MW-G32	49-51 <u>53</u>
Air Quality and Climate Change	MW-AIR1 – MW-AIR5	51-52 <u>53-54</u>
Cultural Heritage	MW-CH1 – MW-CH8	52-55 <u>54-57</u>
Cultural Heritage Design Commitments	D-CH1 - D- CH32 <u>CH33</u>	56-59 <u>57-60</u>
Landscape and Visual	MW-LAN1 – D-LAN5	59-61 <u>60-62</u>
Landscape and Visual Design Commitments	D-LAN1- D-LAN5	61 <u>62</u>
Biodiversity	MW-BIO1 – MW-BIO14	61-66 <u>62-67</u>
Biodiversity Design Commitments	D-BIO1 – D-BIO3	66 <u>67</u>
Noise and Vibration	MW-NOI1 – MW-NOI6	66-70 <u>67-71</u>
Noise and Vibration Design Commitments	D-NOI1 – D-NOI6	70-71
Geology and Soils	MW-GEO1 – MW-GEO10	71-74
Water Environment	MW-WAT1 – MW-WAT15	74-82
Materials	MW-MAT1 – MW-MAT6	82-83
People and Communities	MW-COM1 – MW-COM8	83-85
Traffic Management	MW-TRA1 – MW-TRA12	85-89

Table 3.2a: REAC tables for the preliminary works⁴

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
GENERAL PROVISIONS				
PW-G1	n/a	<p>CEMP preparation:</p> <p>The preliminary works contractor (all) shall prepare a CEMP for their works, as applicable to the scope of their contract, and receive the approval of The Authority, prior to the commencement of their works. If there is only one preliminary works contractor for all of the preliminary works a CEMP shall be prepared for each work package of the preliminary works prior to the commencement of that phase.</p> <p>In preparing the CEMP, the preliminary works contractor (all) shall consult with Wiltshire Council, the Environment Agency, Historic England and Natural England on those aspects of the CEMP that are relevant to their functions.</p> <p>When submitting the CEMP to the Authority for approval, the preliminary works contractor (all) must include a summary report setting out the consultation undertaken with Wiltshire Council, the Environment Agency, Historic England and Natural England and the contractor's response to that consultation.</p> <p>If any consultation responses are not reflected in the details submitted to the Authority for approval, the summary report must state the contractor's reasons for not including them.</p> <p>The CEMP and the consultation report must be copied to Wiltshire Council, the Environment Agency, Historic England and Natural England.</p> <p><u>Consultation process</u></p> <p><u>Where consultation with any party is stated to be required by this Table 3.2a the relevant person responsible for facilitating such consultation pursuant to this OEMP shall undertake the consultation as set out in the relevant provision, unless otherwise agreed in writing between The Authority and the Consultees (as that term is defined below).</u></p> <p><u>The preliminary works contractor must submit the relevant document on which consultation is required pursuant to this Table 3.2a (referred to in these provisions as "Consultation Material") to The Authority.</u></p> <p><u>The Authority must provide the Consultation Material to the consultees specified in this table 3.2a as required to be consulted in relation to the relevant document ("Consultee(s)") for comment in respect of matters relevant to each Consultee's functions, together with a named contact at the Authority and the preliminary works contractor with whom the Consultee may discuss the Consultation Material. The Authority shall provide the Consultation Material to the single point of contact specified for that purpose by each Consultee.</u></p> <p><u>Each Consultee must provide to The Authority one consolidated marked-up version of the Consultation Material and / or one document containing a table of comments within 10 business days from receipt of the Consultation Material.</u></p>	<p>The Authority approval of the CEMP.</p> <p>Consultation with Wiltshire Council, the Environment Agency, Historic England and Natural England on preparation of the CEMP in respect of matters relevant to their functions.</p>	<p>Preliminary works contractor (all)</p> <p>The Authority (publication)</p>

⁴ The measures are applicable to the works defined as preliminary works in Table 1.1 and will be delivered by a number of individual 'preliminary works contractors'.

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p><u>If any Consultee fails to provide The Authority with comments before the end of the period of 10 business days from receipt of the Consultation Material, that Consultee is deemed to have no comments.</u></p> <p><u>Where Consultees' comments are received by The Authority within the time period specified above, The Authority will provide them to the preliminary works contractor and the preliminary works contractor must have regard to the comments. Where the preliminary works contractor considers it appropriate to do so, it shall address the comments within an amended document.</u></p> <p><u>The preliminary works contractor must submit any amended document to The Authority ("Revised Consultation Material"), alongside the summary report referred to above setting out the consultation undertaken and the preliminary works contractor's response to the Consultees' comments (including an explanation for why any comments have not resulted in an amendment to the Consultation Material). At the same time, the preliminary works contractor must provide a copy of the Revised Consultation Material and the summary report to the Consultees.</u></p> <p><u>The Consultees may comment on the Revised Consultation Material only in respect of how their previous comments have been addressed.</u></p> <p><u>Each consultee must provide to The Authority one consolidated marked-up version of the Revised Consultation Material and / or one document containing a table of comments within 5 business days from receipt of the Revised Consultation Material.</u></p> <p><u>If any Consultee fails to provide Highways England with comments before the end of the period of 5 business days from receipt of the Revised Consultation Material, that Consultee is deemed to have no further comments.</u></p> <p><u>The preliminary works contractor must submit any further amended document to The Authority for approval, alongside an update of the summary report referred to above in respect of any further comments on the Revised Consultation Material. At the same time, the preliminary works contractor must provide a copy of the updated document and summary report to the Consultees.</u></p>		
PW-G2	n/a	<p>Single point of contact:</p> <p>The preliminary works contractor (all) shall identify a person within their CEMP who will be the single point of contact for the regulatory authorities.</p> <p>The preliminary works contractor shall provide the regulatory authorities with relevant contact details prior to the commencement of construction and document this in the CEMP.</p>	The Authority approval of the CEMP.	Preliminary works contractor (all)
PW-G3	n/a	<p>Management structure:</p> <p>The preliminary works contractor (all) shall establish a management structure that includes an organisational chart encompassing all staff responsible for delivery of environmental mitigation measures and shall include this chart within their CEMP. The chart will set out the respective roles and responsibilities with regard to the environment.</p>	The Authority approval of the CEMP.	Preliminary works contractor (all)
PW-G4	n/a	<p>Core working hours:</p> <p>The preliminary works contractor (all) shall adhere to the following core working hours, except in case of emergency or in respect of 'additional working hours' (see below).</p> <p>07:30 – 18:00 Monday to Friday</p> <p>07:30 – 13:00 Saturday</p>	n/a	Preliminary works contractor (all)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>To maximise productivity, a period of up to one hour before and up to one hour after normal working hours may be used for start-up and close down of activities. This will include, but not be limited to, deliveries, movement to place of work, unloading, maintenance and general preparation works. These periods will not be considered an extension of core working hours.</p> <p>Except in the case of an emergency, for any work required to be undertaken outside of core hours (not including repairs or maintenance), an application will be made to Wiltshire Council prior to undertaking the works under Section 61 of the Control of Pollution Act 1974.</p> <p>Any variations to core hours and/or additional hours required would be agreed with Wiltshire Council.</p> <p><u>Additional working hours</u></p> <p>The preliminary works contractor is able to undertake work within the existing highway boundary during night time, Saturday afternoon, Sunday and/or bank holiday working for reasons of safety or operational necessity and this may involve consecutive nights' work over weekends, and may on occasion involve longer durations. Activities outside core working hours that could give rise to disturbance will be kept to a reasonably practicable minimum.</p> <p>Repairs or maintenance of construction equipment that is required to be carried out outside of core working hours will normally be carried out on Saturday afternoons or Sundays between 09:00 and 17:00.</p> <p>In the case of work required in response to an emergency or which if not completed would be unsafe or harmful to the works, staff, public or local environment, Wiltshire Council will be informed as soon as reasonably practicable of the reasons for, and likely duration of, the works. This information will also be made available to the Scheme helpline and could include incidents such as where pouring concrete takes longer than planned due to equipment failure or where unexpectedly poor ground conditions, encountered whilst excavating, require immediate stabilisation.</p>		
PW-G5	n/a	<p>Method Statements:</p> <p>The preliminary works contractor (all) shall set out the procedures to address health and wellbeing, safety, traffic management, site security and environmental issues in method statements prepared as part of their works.</p> <p>The method statements shall define any specific environmental control measures, to be implemented to meet the requirements of their CEMP.</p> <p>The preliminary works contractor (all) shall submit the method statements and risk assessments to, and obtain approval from, The Authority before commencing the works.</p>	The Authority approval of the method statements.	Preliminary works contractor (all)
PW-G6	ES Chapter 7, Section 7.8 ES Chapter 8, Section 8.8	<p>Site lighting:</p> <p>The preliminary works contractor <u>(all)</u> shall define within the CEMP the proposed approach to site lighting around construction compounds and elsewhere along the route alignment, giving consideration to the WHS context and other environmental constraints.</p> <p>Lighting shall be at the minimum luminosity necessary and use low energy consumption fittings and should avoid light spillage.</p> <p>Lighting shall also be designed, positioned and directed so as not to unnecessarily intrude on adjacent buildings, <u>sensitive heritage receptors</u>, ecological receptors, structures used by protected species and</p>	The Authority approval of the CEMP.	Preliminary works contractor <u>(all)</u>

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		other land uses to prevent unnecessary disturbance, interference with local residents, or passing motorists on nearby roads.		
AIR QUALITY				
PW-AIR1	ES Chapter 13, Section 13.9	<p>Best Practicable Means:</p> <p>The preliminary works contractor (all) shall manage dust, air pollution and exhaust emission during the construction works in accordance with Best Practicable Means (BPM). Specific measures shall be based upon industry best practice, including the measures listed in the Institute of Air Quality Management's (IAQM) Guidance on the Assessment of Dust from Demolition and Construction. These measures will be set out in more detail the CEMP and could include:</p> <ol style="list-style-type: none"> Undertake periodic on-site inspections, where receptors are nearby, to monitor dust, record inspection results, and make the log available to the Wiltshire Council, The Authority etc. when asked. Remove materials that have the potential to produce dust from site as soon as possible, unless being re-used on site Cover, seed or fence stockpiles to prevent wind whipping. Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on un-surfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided). All construction plant would use fuel equivalent to ultra-low sulphur diesel (ULSD) where possible. 	Implementation of BPM.	Preliminary works contractor (all)
CULTURAL HERITAGE				
PW-CH1	ES Chapter 6, Section 6.8	<p>Heritage Management Plan (HMP):</p> <p>The preliminary works contractor (archaeology) shall produce a HMP based on the Detailed Archaeological Mitigation Strategy, indicating how the historic environment (relevant to the scope of works) is to be protected in a consistent and integrated manner, coordinated with all other relevant environmental topics. The HMP shall be prepared in consultation with the members of the Heritage Monitoring and Advisory Group (HMAG⁵) and Wiltshire Council Archaeological Services (WCAS) and shall address:</p> <ol style="list-style-type: none"> all temporary and permanent works, which may include, as relevant, boundary fencing, vegetation clearance, ground investigations, demolition, utility diversions, access routes /haul roads and works compounds. potential indirect impacts on heritage assets both inside and outside the World Heritage Site (WHS) from activities which may include, as relevant, ground vibration, light pollution, dust, ground movement / subsidence, dewatering, and the impact on buried archaeological remains of adverse ground 	The HMP shall be prepared in consultation with the members of HMAG (for works within the WHS) and WCAS (for works outside of the WHS) <u>Wiltshire Council</u> and Historic England (for works outside of the WHS which would otherwise require scheduled monument consent) and, for sites	Preliminary works contractor (archaeology)

⁵ Comprising Historic England, the National Trust, Wiltshire Council Archaeology Service and English Heritage Trust

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>conditions caused by extreme weather events (rutting, compaction of soft ground etc.).</p> <p>c) issues of security for vulnerable sites / areas of archaeological interest outside the normal working hours, and at weekends.</p> <p>d) procedures for <u>the protection of</u> unexpected archaeological discoveries.</p> <p>The preliminary works contractor (ecology, utilities, roads and ground investigation) shall identify within their CEMP how works are to be carried out in accordance with the Heritage Management Plan.</p>	<p><u>within the WHS, HMAG</u>, and approved by Wiltshire Council (in consultation with Historic England, to the extent the works <u>that are</u> the subject of the approval would ordinarily trigger the need for scheduled monument consent) prior to the relevant works commencing.</p>	
PW-CH2	DCO Requirement 5 ES Chapter 6, Section 6.8	<p>Works in accordance with <u>the Detailed Archaeological Mitigation Strategy</u>:</p> <p>The preliminary works contractors (all) shall undertake the archaeological works, at all times, in accordance with the DAMS and DCO Requirement 5.</p>	Works undertaken in accordance with the DAMS and Requirement 5.	Preliminary works contractor (all)
PW-CH3	ES Chapter 6, Section 6.8	<p>Site Specific Written Schemes of Investigation:</p> <p>For sites or areas of interest that have been identified for archaeological investigation, either in the ES, the DAMS, or as a result of previous and on-going evaluation surveys, the preliminary works contractor (archaeology) shall prepare a Site Specific Written Scheme of Investigation (SSWSI) that describes the mitigation measures to be carried out.</p>	<p>Production of SSWSISSWSIs in consultation with the members of HMAG (for works within the WHS) and WCAS (for works outside of the WHS) <u>Wiltshire Council</u> and Historic England (for works outside of the WHS which would otherwise require scheduled monument consent) and, for sites within the WHS, HMAG, and approval by Wiltshire Council (in consultation with Historic England, to the extent the works <u>that are</u> the subject of the approval would ordinarily trigger the need for scheduled monument consent) prior to the relevant</p>	Preliminary works contractor (archaeology)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
			works commencing.	
PW-CH4	ES Chapter 6, Section 6.8	<p>Fencing of heritage assets:</p> <p>The preliminary works contractor (archaeology) shall ensure all heritage assets identified in the DAMS for protective fencing are securely fenced during<u>prior to</u> the early stages<u>start</u> of the preliminary works (in conjunction with other mitigation measures).</p> <p>The preliminary works contractor (archaeology) shall consult with the members of the HMAG (for works inside the WHS) and WCAS (for works outside of the WHS) and Historic England (for works outside of the WHS which would otherwise require scheduled monument consent) to determine the type of fencing to be used.</p> <p>The contractor shall separately prepare a Method Statement for all fencing works which will include details of appropriate archaeological mitigation measures (detailed mitigation requirements shall be set out in a SSWSI).</p>	<p>Consultation on Method Statements / SSWSIs with the members of HMAG (for works within the WHS) and WCAS (for works outside of the WHS)<u>Wiltshire Council</u> and Historic England (for works outside of the WHS which would otherwise require scheduled monument consent)<u>and, for sites within the WHS, HMAG</u>, and approval from Wiltshire Council (in consultation with Historic England, to the extent the works that are the subject of the approval would ordinarily trigger the need for scheduled monument consent) prior to the relevant works commencing.</p>	Preliminary works contractor (archaeology)
PW-CH5	ES Chapter 6, Section 6.8	<p>Limiting landtake:</p> <p>At the western portal approach road and the eastern portal approach road the preliminary works contractor (archaeology) shall limit the amount of land take for the preliminary archaeology works to the extent of the proposed cutting(s) and any associated infrastructure (sites 24 and 28 – refer to the DAMS and its associated figures).</p> <p>The preliminary works contractor (archaeology), or a contractor under their direction shall install, during<u>at</u> the early stages<u>start</u> of the preliminary works, temporary barrier fencing that demarcates the amount of land take at Sites 24 and 28.</p> <p>The preliminary works contractor (archaeology) shall produce a SSWSI for sites 24 and 28, including the identification and installation of appropriate fencing.</p>	<p>Production of SSWSI<u>SSWSIs</u> in consultation with <u>Wiltshire Council and</u> the members of HMAG and approval by Wiltshire Council (in consultation with Historic England, to the extent the works that are the subject of the approval would ordinarily trigger the need for scheduled monument consent) prior to the relevant</p>	Preliminary works contractor (archaeology)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
			works commencing.	
PW-CH6		<p>Phasing of preliminary works:</p> <p>The preliminary works contractor (archaeology) shall ensure that any relevant site-specific ecological mitigation works are sufficiently advanced in relation to the species / habitats present (refer to items PW-BIO2 – PW-BIO9) prior to the commencement of the relevant archaeological works.</p>	Liaison with the preliminary works contractor (ecology).	Preliminary works contractor (archaeology)
LANDSCAPE AND VISUAL				
PW-LAN1	ES Chapter 7, Section 7.8	<p>Retained vegetation:</p> <p>Where trees are to be retained within or immediately adjacent to the order limits, the preliminary works contractor (all) shall adopt the default position that the root protection area (RPA) and canopy spread will form an effective Construction Exclusion Zone, secured with robust fencing where no access will be permitted. Works within the root protection area of trees will be avoided wherever practicable. However, where some works within the RPA cannot be avoided, e.g. for access or stockpiling, the contractor shall use cellular confinement systems to minimise/avoid compaction to the ground. Protection will still be required to avoid physical damage to the tree, i.e. trunk, branches or crown. In addition, if works are deemed essential within the RPA the length of time of the impact shall be limited.</p> <p><u>Nile Clumps</u></p> <p>Prior to preliminary works commencing in the vicinity of the Nile Clumps, the preliminary works contractor (ecology) shall install protective fencing around the Nile Clumps (located within the scheme boundary Tree Preservation Order No. 275). The fencing requirements shall be developed in consultation with Wiltshire Council. The fencing shall remain in-situ until all works within the vicinity of the Nile Clumps are complete.</p>	<p>Consultation with the members of HMAG and approval from The Authority prior to any fencing being installed within the WHS.</p> <p>Consultation with Wiltshire Council on the fencing requirements to the Nile Clumps</p>	<p>Preliminary works contractor (all)</p> <p>Preliminary works contractor (ecology) – fencing of the Nile Clumps</p>
PW-LAN2	DCO Requirement 8	<p>Works in accordance with approved landscaping scheme:</p> <p>The preliminary works contractor (roads) will undertake landscaping works in accordance with the approved landscaping scheme produced in conformance with Requirement 8 of the DCO.</p>	Works undertaken in accordance with Requirement 8.	Preliminary works contractor (roads)
PW-LAN3	Stakeholder consultation	The preliminary works contractor (roads) shall break out the road surface of the redundant Allington Track.	n/a	Preliminary works contractor (roads)
BIODIVERSITY				
PW-BIO1	ES Chapter 8, Section 8.8	<p>Biosecurity:</p> <p>The preliminary works contractor (all) shall be cognisant of the findings of any pre-works invasive non-native species (INNS) floral survey and any ongoing management measures. Should INNS be present within works areas, the preliminary works contractor (all) shall produce an appropriate INNS Management Plan which includes Method Statements addressing how identified species are to be effectively managed and ensure legal compliance. This Should an INNS Management Plan be required, the preliminary works contractor (all) shall consult with Natural England during the development of the plan and the plan shall be included within the CEMP for approval by The Authority.</p>	<p>Implementation of the identified actions.</p> <p>The Authority approval Production of the INNS Management Plan (should it be(s) (if required)-) in consultation with</p>	Preliminary works contractor (all)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		The preliminary works contractor (all) shall implement measures to promote biosecurity and ensure legal compliance with regards to INNS and diseases to avoid and minimise the risk of spread as a consequence of the Scheme. This will include, Tool Box Talks, exclusion zones and method statements on suitable working practices, which will include but not be limited to the cleaning of equipment (including boots) and vehicles on and off site and between sites, vegetation clearance methods (such as treatments / timings) and the segregation of vegetation arisings, including suitable disposal methods.	Natural England and approval by The Authority.	
PW-BIO2	ES Chapter 8, Section 8.8	<p>Great crested newts (GCN):</p> <p>All clearance works within 500m of the known breeding population of GCN will be undertaken under specialist supervision following a method statement, which may include seasonal constraints and exclusion zones for specific activities. This method statement will include any maintenance measures required on works areas within 500m of a known breeding pond to deter GCN from entering areas where they would be at risk from subsequent works.</p> <p>As the working methods will avoid impact on GCN, it is not considered necessary to undertake monitoring surveys, however as stated above, this may be revised following the pre-construction update surveys if a licence becomes necessary later.</p> <p>Location: GCN breeding pond is outside order limits within the River Till valley, south of Foredown Farm; relevant fields within order limits are north of the new alignment adjacent to chainages 4400m to 4800m.</p>	Implementation of the identified actions. Completion / return of working permits or other relevant approvals.	Preliminary works contractor (all)
PW-BIO3	ES Chapter 8, Section 8.8	<p>Reptiles:</p> <p>Clearance activities within areas of habitat considered suitable for reptiles (of any species) should be undertaken in a phased manner to encourage reptiles to move from the working area into adjacent suitable habitat.</p> <p>All works should be undertaken under a method statement, which may include seasonal constraints (depending on the habitat present within the working areas). Should hibernacula features be identified within the working area, these should be removed by hand prior to the hibernation season (which is temperature dependant, but ranges from October to February). Works should only commence within these areas on receipt of suitable permits or other relevant approvals.</p> <p>Following the habitat clearance, all areas shall be maintained in an unfavourable state to discourage reptiles from entering the working area.</p>	Implementation of the identified actions. Completion / return of working permits or other relevant approvals.	Preliminary works contractor (all)
PW-BIO4	ES Chapter 8, Section 8.8	<p>Breeding birds (excluding Schedule 1):</p> <p>Where practicable, the preliminary works contractor (all) shall undertake vegetation clearance (if required), between October and February inclusive, which is outside of the bird nesting season.</p> <p>If clearance is not possible outside of the bird nesting season, then suitable nesting habitat to be removed shall be checked for nesting birds by the preliminary works contractor (ecology) or an appropriate specialist, immediately prior to its removal.</p> <p>Where active bird nests are present, no works to or in the vicinity (5m) of the bird nests will be undertaken until any young are no longer considered to be dependent on the nest.</p>	Implementation of the identified actions. Completion / return of working permits or other relevant approvals.	Preliminary works contractor (all)
PW-BIO5	ES Chapter 8, Section 8.8	<p>Schedule 1 / Annex 1 breeding birds:</p> <p>In addition to PW-BIO4, if works are carried out at a time or location that has the potential to disturb</p>	Implementation of the identified actions.	Preliminary works contractor (ecology)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>Schedule 1 / Annex 1 breeding birds then all works shall be undertaken under a method statement, whereby depending on the species present and the works to be undertaken, specialist supervision may be required.</p> <p>The actions required of the preliminary works contractor (ecology), should a Schedule 1 / Annex 1 species be discovered within an area to be disturbed, are those general measures as set out above for breeding birds, with the added requirement that any Schedule 1 / Annex 1 species or its dependent young must not be disturbed while at or building a nest. A suitable exclusion zone and the inclusion of suitable protective measures (such as visual or noise screens) may be used. Suitable requirements will be determined on a case by case basis.</p> <p>Great Bustard shall be treated as if they are Schedule 1 breeding birds for the purposes of this item PW-BIO5.</p> <p>Stone curlews:</p> <p>Due to the sensitivity of stone curlews to human disturbance (they can be disturbed by human activities within 500m of a nest site), it will be necessary (where practical) to deter stone curlew from nesting within, or in proximity of the Scheme, prior to the commencement of works.</p> <p>Deterrent measures include (but are not limited to) the following:</p> <ul style="list-style-type: none"> a) maintaining areas of dense crops and grass until it is necessary to access the working area. This would deter stone curlew from attempting to nest; b) Installation of visual deterrents, to be confirmed on a site by site basis. c) planting areas of temporary bare ground with a quick growing crop or quick growing wild flower or game cover seed mix. <p>Even with the use of these deterrent measures, there may still be a risk of stone curlews nesting within the Scheme boundary (or within 500m).</p> <p>In the event that nesting stone curlews are found located within the Scheme boundary or within 500m, then liaison with Natural England and the RSPB will be undertaken. This will aim to identify and agree the specific and appropriate measures to be undertaken in order to avoid disturbance of the nesting pair.</p> <p><u>Replacement Plot</u></p> <p>The preliminary works contractor (ecology) shall create a replacement nesting plot for stone curlew prior to the commencement of the works removing the stone curlew plot near Parsonage Down.</p> <p>Monitoring: An appropriate specialist shall undertake monitoring of stone curlews at the retained breeding plots within 500m of the Scheme boundary (where public access is available / can be arranged) and at the newly created nesting plot, associated with the mitigation defined in the ES (Chapter 8). Where monitoring is undertaken for other purposes appropriate data will be used without duplication of survey.</p> <p>Great bustards:</p> <p>Great bustards are considered to be sensitive to human disturbance. A precautionary approach has been adopted, whereby in the event that nesting great bustards are found located within the Scheme boundary</p>	<p>Monitoring and reporting arrangements developed by the ECoW in consultation with Natural England, RSPB, or the Great Bustard Group (as appropriate), and approved by The Authority.</p>	

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		or within 500m of works, then liaison with the Great Bustard Group will be undertaken. This will aim to identify and agree the specific and appropriate measures to be undertaken in order to avoid disturbance of the nest.		
PW-BIO6	ES Chapter 8, Section 8.8	<p>Badgers:</p> <p>The preliminary works contractor (ecology) or The Authority shall apply for a Scheme-wide Natural England badger sett closure licence.</p> <p>The preliminary works contractor (ecology) or The Authority will be responsible for updating / amending the licence as required. The licence will include provision for the destruction of setts within the works area (where required) and will include a detailed method statement setting out the measures to be implemented.</p> <p>The preliminary works contractor (ecology) or The Authority will be named under the licence when appointed and will be responsible for undertaking any badger sett closures in accordance with the method statement of the Natural England badger sett closure licence.</p> <p>Works within the Order limits within 50m of any retained badger sett will fall under the provisions of the method statement. Depending on the timings and activity of such works, an appropriate specialist may need to be present or seasonal restrictions may be required and would be defined under the conditions of the licence.</p> <p>Monitoring surveys will be carried out at any retained setts and to identify any recently dug badger setts that may be affected by ongoing or planned works. Where necessary further sett closures or other mitigation measures will be carried out in accordance with the method statement and licence.</p>	Natural England licence return.	Preliminary works contractor (ecology)
PW-BIO7	ES Chapter 8, Section 8.8	<p>Bat roosts:</p> <p>Should a pre-works survey of trees identify a tree containing a bat roost which requires removal, the preliminary works contractor (ecology) or The Authority shall apply for a Natural England EPS licence prior to the commencement of the removal works. The preliminary works contractor (ecology) or the Authority shall be named under the licence and shall be responsible for ensuring that all works detailed within the licence are carried out in accordance with the method statements.</p> <p>Where bat roosts are being retained within the Scheme boundaries, the following methods should be incorporated:</p> <ol style="list-style-type: none"> consideration given to seasonal use of roost in defining working methods; exclusion zones to be established and maintained; any works within 20m of a confirmed roost shall be carried out under the supervision of an appropriate specialist; and measures shall be applied to maintain dark conditions within 20m of identified roosts, including measures to avoid light spill from construction lighting. <p>Works involving felling or maintenance on trees with potential for bat roosts will follow best practise methods to protect bats and their roosts. This shall include the following:</p> <ol style="list-style-type: none"> All trees within the Order Limits and within 20m of any works area will be inspected by a Natural 	Application and return of Natural England EPS licence (if necessary).	Preliminary works contractor (ecology)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>England licenced bat ecologist from the ground and categorised for their potential for bat roosts, in accordance with the current best practice;</p> <p>b) Trees which have low suitability can be section felled;</p> <p>c) Trees which are moderate or high suitability will be re-inspected by a Natural England bat licensed ecologist, in line with current best practice guidance, and further surveys may be required;</p> <p>d) Any confirmed roosts will require a Natural England EPS licence to be obtained prior to felling. At the ES stage there are no roosts expected to be lost and hence no need to apply for an EPS licence, however, this will be updated following the pre-construction surveys;</p> <p>e) Works affecting bat roosts shall only commence on receipt of suitable method statements, licences, permits or other relevant approvals.</p> <p>Locations: To be updated following pre-construction surveys.</p>		
PW-BIO8	ES Chapter 8, Section 8.8	<p>Otters:</p> <p>Where an otter resting place is present or suspected, a suitably qualified ecologist will prepare a method statement for the works to avoid disturbance of otters and ensure that works are legally compliant. Where required, a Natural England EPS licence will be obtained. At the ES stage it is not expected that a EPS licence will be required.</p> <p>Works should only commence within these areas on receipt of suitable permits or other relevant approvals.</p> <p>Locations: River Till chainages 4000m to 4100m; River Avon viaduct, chainages 12200m to 12300m</p>	Application and return of Natural England EPS licence (if necessary).	Preliminary works contractor (ecology)
PW-BIO9	ES Chapter 8, Section 8.8	<p>Water voles:</p> <p>Should water voles be present within the working area of the Scheme, the preliminary works contractor (ecology) will apply for suitable licences from Natural England in order to facilitate the works.</p> <p>Locations: River Till chainages 4000m to 4100m; River Avon viaduct, chainages 12200m to 12300m</p>	Return of protected species licences from Natural England (if required).	Preliminary works contractor (ecology)
PW-BIO10	ES Chapter 8, Section 8.8	<p>Other notable species:</p> <p>Other notable species are present within the Scheme boundaries including brown hare (<i>Lepus europaeus</i>), hedgehog (<i>Erinaceus europaeus</i>), polecat (<i>Mustela putorius</i>), harvest mouse (<i>Micromys minutus</i>) and water shrew (<i>Neomys fodiens</i>). The preliminary works contractor (all) shall follow best practice to avoid harm for these species during the preliminary works. This should include covering and fencing off all open holes at the end of each day to prevent any access from wildlife, or by providing ramps to allow any wildlife to escape. Ramps should be suitable for all sizes of local wildlife. Further mitigation details should be incorporated into a method statement as required.</p>	Implementation of the identified actions.	Preliminary works contractor (all)
PW-BIO11	n/a	<p>Phasing of preliminary works:</p> <p>The preliminary works contractor (archaeology, utilities, roads, ground investigation) shall ensure that any relevant site-specific ecological mitigation works, e.g. badger sett closures, habitat clearance - refer to items PW-BIO2 – PW-BIO9) are sufficiently advanced in relation to the species / habitats present prior to the commencement of the relevant preliminary works.</p>	Implementation of the identified actions.	Preliminary works contractor (archaeology, utilities, roads, ground investigation)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
NOISE AND VIBRATION				
PW–NOI1	ES, Chapter 9, Section 9.8	<p>Best Practicable Means:</p> <p>The preliminary works contractor (all) shall minimise noise and vibration during the Preliminary Works by employing Best Practicable Means (BPM), as defined under Section 72 of the Control of Pollution Act (CoPA) 1974 and Section 79 of the Environmental Protection Act 1990, at all times.</p> <p>BPM shall consider the recommendations of BS 5228: Code of practice for noise and vibration control on construction and open sites parts 1 and 2 and BS 7385: Evaluation and measurement for vibration in buildings. Guide to damage levels from groundborne vibration.</p> <p>The preliminary works contractor shall detail the application of BPM within the CEMP or Noise and Vibration Management Plan as relevant. BPM should be included in the following order:</p> <ol style="list-style-type: none"> a) control of noise and vibration at source - such as use of low noise equipment, the provision of acoustic enclosures and the use of less intrusive alarms and the screening of equipment; b) should the application of BPM at source not prove effective and noise exposure exceeds the relevant trigger level (as defined in BS 5228-1, Table E.2), the preliminary works contractor may offer: <ol style="list-style-type: none"> i. noise insulation; or if that is not successful ii. temporary re-housing. 	Implementation of BPM.	Preliminary works contractor (all)
PW–NOI2	ES, Chapter 9, Section 9.8	<p>Section 61 Consents:</p> <p>Except in the case of an emergency, for any work required to be undertaken outside of core hours (not including repairs or maintenance), the relevant preliminary works contractor (all) shall make an application to Wiltshire Council prior to undertaking the works under Section 61 of the Control of Pollution Act 1974.</p> <p>In the event that works for which a Section 61 consent has been applied for have to be rescheduled or modified, e.g. method or working hours, for reasons not envisaged at the time of the Section 61 consent submission, the contractor shall apply for a dispensation or variation from Wiltshire Council, in advance of the start of those works.</p>	Agreement of Section 61s with Wiltshire Council (if required).	Preliminary works contractor (all)
PW–NOI3	ES, Chapter 9, Section 9.8	<p>Noise and Vibration Management Plan:</p> <p>The preliminary works contractor (utilities, roads contractors, ground investigation) shall prepare a noise and vibration management plan, detailing the management and monitoring processes to be introduced across all construction sites and compounds. This plan shall be appended to the CEMP and consulted upon with Wiltshire Council.</p> <p>The plan shall include, but not limited to, the following:</p> <ol style="list-style-type: none"> a) integration of noise control measures into the preparation of all method statements for the works; b) details and locations of all site hoardings, screens or bunds that will provide acoustic screening during construction; c) procedures for the installation of noise insulation (if deemed to be required – refer to PW-NOI6) or provision of temporary re-housing (if deemed required – refer to PW-NOI6) and to ensure such 	The Authority approval of the Noise and Vibration Management Plan.	Preliminary works contractor (utilities, roads and ground investigation)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>measures are in place as early as reasonably practicable;</p> <p>d) noise and vibration monitoring protocols including monitoring locations, stages during construction at which monitoring will be undertaken, and methods of publishing the results;</p> <p>e) details of inspection and maintenance schedules to be undertaken;</p> <p>f) processes to ensure ongoing compliance with all controls and consent for the works; and</p> <p>g) process for implementing corrective actions that may be required to avoid or address a potential non-compliance. The preliminary works shall be undertaken in accordance with the Noise and Vibration Management Plan.</p>		
PW– NOI4	ES, Chapter 9, Section 9.8	<p>Vibration:</p> <p>The preliminary works contractor (utilities, roads and ground investigation) shall take into account the following guidance when establishing criteria, controls and working methods for vibration management:</p> <p>a) BS 5228 – 2 Code of practice for noise and vibration control on construction and open sites;</p> <p>b) ISO 4866: 2010 Mechanical vibration and shock. Vibration of fixed structures. Guidelines for the measurement of vibrations and evaluation of their effects on structures; and</p> <p>c) BS 7385 - 2 Evaluation and measurement for vibration in buildings – Part 2: Guide to damage levels from groundborne vibration</p> <p><u>Protection of building occupants from disturbance</u></p> <p>No start-up or shut down of vibratory plant e.g. rollers or compactors, within 50m of receptors.</p> <p>The preliminary works contractor (utilities, roads and ground investigation) shall refer to BS 5228-2 for guidance levels in terms of Peak Particle Velocity (PPV). If predicted vibration levels exceed 1mms^{-1} component PPV at occupied residential buildings based on the prediction methodology in BS 5228-2, Wiltshire Council and those potentially affected will be notified as soon as practicably possible in advance of the works. The notification will describe the nature and duration of the works and any associated proposals for vibration monitoring in the event that is required.</p> <p><u>Protection of buildings from damage</u></p> <p>The preliminary works contractor (utilities, roads and ground investigation) shall use BPM to control vibration levels so that the PPV, as measured in accordance with BS 7385-2 Evaluation and measurement for vibration in buildings – Part 2: Guide to damage levels from groundborne vibration, are generally not exceeded. The preliminary works contractor (utilities, roads and ground investigation) shall carry out a scoping vibration appraisal to determine whether the trigger level of 6mms^{-1} (Table 9.6, Chapter 9 of the ES) is likely to be exceeded. Activities requiring an appraisal may include tunnelling, vibratory compaction, impact or vibratory piling and other driven processes.</p> <p>The preliminary works contractor (utilities, roads and ground investigation) shall notify and consult Wiltshire Council regarding any works predicted to generate a PPV above 6mms^{-1}. Where it is determined that there is no reasonable or practicable means to reduce predicted or measured vibration then the contractor shall:</p> <p>a) agree and consult with Wiltshire Council regarding monitoring for vibration and strain induced in the building during the works;</p>	Completion of appropriate assessments, identification of buildings / properties at risk / cultural heritage assets and consultation of actions with relevant parties as applicable	Preliminary works contractor (utilities, roads and ground investigation)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>b) consult occupiers of properties about:</p> <ol style="list-style-type: none"> i. the surveys to be carried out and any consequent actions; and ii. any additional reasonable and practicable mitigation to be provided for occupants; and <p>c) carry out a condition survey before and after the relevant works.</p> <p>The preliminary works contractor (utilities, roads and ground investigation) shall identify any buildings that may be unusually vulnerable to vibration, that are located within 50m of any activities that may give rise to significant vibration. Where the predicted vibration at the foundations of such buildings exceeds 3mms⁻¹ PPV then the contractor shall undertake an initial structural survey of the building. Based on the survey, the level of vibration above which condition surveys and continuous vibration monitoring are required will be confirmed with the building owner and Wiltshire Council.</p> <p><i>Protection of Sensitive Cultural Assets, excluding buildings</i></p> <p>The preliminary works contractor (utilities, roads and ground investigation) shall identify, in consultation with the members of HMAG, any potentially vibration sensitive cultural heritage assets (including barrows) based on the sensitivity of the assets and proximity to preliminary works. Should assets be identified, actions to control or mitigate impacts (including monitoring) shall be agreed between the preliminary works contractor (utilities, roads and ground), the operator of the equipment and The Authority as appropriate, in consultation with the members of HMAG.</p>		
PW-NOI5	ES, Chapter 9, Section 9.8	<p>Monitoring of noise and vibration:</p> <p>The preliminary works contractor (utilities, roads and ground investigation) shall undertake and report noise and vibration monitoring, as is necessary, to ensure and demonstrate compliance with all noise and vibration commitments, and the requirements of the approved approval for their works.</p> <p>The preliminary works contractor (utilities, roads and ground investigation) shall undertake regular onsite observation monitoring and checks/audits to ensure that BPM is being employed at all times. (refer to PW-NOI4). The site reviews will be logged and any remedial actions recorded. Such checks will include:</p> <ol style="list-style-type: none"> a) compliance with hours of working; b) presence of mitigation measures e.g. engines doors closed, airlines not leaking, and site hording in place; c) number and type of plant; d) compliance with agreed working methods; and e) compliance with any specific requirements of the Noise and Vibration Management Plan. (refer to PW-NOI3). <p>The monitoring and compliance assurance process shall be set out in the noise and vibration management plans, as part of the CEMP, including proposals for monitoring locations. Proposals for any monitoring locations will be set out in the Noise and Vibration Monitoring Plan. (refer to PW-NOI3).</p>	Inclusion of monitoring proposal with the Noise and Vibration Management Plan. Adhering to the specified monitoring regime throughout the construction period	Preliminary works contractor (utilities, roads and ground investigation)
PW-NOI6	n/a	<p>Noise insulation and temporary re-housing:</p> <p>The preliminary works contractor (utilities, roads and ground investigation) shall offer noise insulation or temporary re-housing to qualifying parties when:</p>	Implementation of the actions. Inform Wiltshire	Preliminary works contractor (utilities, roads and ground investigation)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>a) noise levels are predicted or measured by the preliminary works contractor (utilities, roads and ground investigation) to exceed the relevant trigger level (as defined in BS 5228-1, Table E.2) for at least 10 days out of any period of fifteen consecutive days or alternatively 40 days in any six month period at affected properties;</p> <p>b) the property complies with all other requirements of the Noise Insulation Regulations 1975 (as amended);</p> <p>c) the property is lawfully occupied as a permanent dwelling; and</p> <p>d) noise insulation does not already exist that is of an equivalent standard to that which would be allowed for under the Noise Insulation Regulations 1975 (as amended).</p> <p>The preliminary works contractor (utilities, roads and ground investigation) shall consider all applications supported by evidence for noise insulation or temporary rehousing from occupiers who may have special circumstances. Special circumstances could include night workers, those working in home occupations, local businesses or buildings that provide community facilities requiring a particularly quiet environment and those with a medical condition which will be seriously aggravated by construction noise, and provide noise insulation or temporary re-housing where it is demonstrated that this is necessary.</p> <p><u>The preliminary works contractor (utilities, roads and ground investigation) shall inform Wiltshire Council should it be identified that noise insulation or temporary re-housing is required.</u></p>	<u>Council (if required).</u>	
GEOLOGY AND SOILS				
PW- GEO1	ES Chapter 10, section 10.8	<p>Ground investigation:</p> <p>All GI works will<u>shall</u> be undertaken in accordance with UK best practice., including BS 5930:2015 Code of Practice for ground investigations (Ref and BS 10175:2011 + A2:2017 Investigation of potentially contaminated sites Code of Practice. The assessment of contaminated land should be risk-based and in accordance with Contaminated Land Report 11 Model Procedures for the Management of Land Contamination (2004).</p>	Completion of appropriate GI works and remediation measures, if applicable.	Preliminary works contractor (ground investigation)
PW- GEO2	ES Chapter 10, section 10.8 DCO Requirement 7	<p>In the event that contaminated land, including groundwater, is found at any time, which was not previously identified in the <u>environmental statement</u>ES, Requirement 7 of the DCO is applicable and <u>the</u> preliminary works contractor (all) shall follow those provisions.</p> <p>Where contaminated land cannot be avoided, in association with part of a preliminary works, and/or where significant risks are identified, the relevant preliminary works contractor shall introduce appropriate mitigation (remediation) to reduce to acceptable levels the potential short and long-term health and safety and environmental risks to sensitive receptors will be identified and implemented.</p>	Works undertaken in accordance with Requirement 7.	Preliminary works contractor (all)
PW- GEO3	ES Chapter 10 Section 10.8.	<p>Soils Management Strategy:</p> <p>The preliminary works contractor (utilities, roads, archaeology) shall produce a detailed Soils Management Strategy (SMS) based on the Outline SMS within Annex A.3. The SMS shall identify the nature and types of soil that will be affected and the methods that will be employed for stripping soil and the restoration of agricultural land (where restoration of agricultural land is required).</p> <p>The preliminary works contractor shall follow the guidance in Construction Code of Practice for the</p>	The Authority approval of the SMS, in consultation with Wiltshire Council and <u>The Environment Agency in respect of matters relevant to</u>	Preliminary works contractor (utilities, roads, archaeology)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>Sustainable Use of Soils on Construction Sites (2009) when handling agricultural soils and in particular the land to be reprofiled for use as permanent chalk grassland.</p> <p>To form part of the Soils Management Strategy, the preliminary works contractor (utilities, roads, archaeology) shall develop a:</p> <ol style="list-style-type: none"> Soils Handling Strategy, with reference to BS3882: 2015 Specification for Topsoil and the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Site. This shall incorporate the soils handling measures outlined within the DAMS, identify locations where archaeological in-situ preservation is required and consider areas to be returned to agricultural use; and Soil Resources Plan, which will confirm the soil types, the most appropriate re-use for the different types of soils and proposed methods for handling, storing and replacing soils on-site. <u>including bulk wet sieving, should it be required.</u> 	<u>their function and,</u> for works inside the WHS, the members of HMAG- <u>..</u>	
WATER ENVIRONMENT				
PW-WAT1	ES Chapter 11, Section 11.8	<p>Pollution control:</p> <p>The preliminary works contractor (all) shall develop and implement appropriate measures within the CEMP for their works to control the risk of pollution due to construction works, materials and extreme weather event, including change to flow, flood storage volume, water levels and quality. This will be completed having regard to industry guidance.</p>	The Authority approval of the CEMP.	Preliminary works contractor (all)
PW-WAT2	DCO Requirement 10	<p>Surface water drainage:</p> <p>The preliminary works contractor (roads) shall ensure that the surface water drainage system reflects the mitigation measures identified within the ES and conforms with Requirement 10 of the DCO.</p>	Works undertaken in accordance with Requirement 10.	Preliminary works contractor (roads)
PW-WAT3	Stakeholder engagement	<p>Site Drainage:</p> <p>Water flows from sites will be limited during construction to existing runoff rates, unless otherwise agreed with Wiltshire Council and the Environment Agency in accordance with relevant legislation.</p>	Agreement of runoff rates with Wiltshire Council and the Environment Agency (if required).	Preliminary works contractor (all)
PEOPLE AND COMMUNITIES				
PW-COM1	n/a	<p>Notification of works:</p> <p>The preliminary works contractor (all) shall advise landowners, occupiers and agents, as appropriate, regarding the intended commencement of preliminary works, as relevant to their contract and programme, in areas of the site adjacent to agricultural holdings. The contractor shall liaise with landowners, occupiers and agents, as appropriate, and agree the programme of works and access routes to be used by both the construction traffic and, where relevant, agricultural machinery and/or livestock.</p>	n/a	Preliminary works contractor (all)
PW-COM2	n/a	<p>Restoration of agricultural land and aftercare:</p> <p>Where land is to be restored to agriculture <u>following the preliminary works</u>, the preliminary works contractor (utilities, roads, archaeology) shall liaise with the landowner / tenant, through the ALO, and set out the detail for restoration on each specific area of farmland. The land restoration will proceed with full</p>	Effective communication with landowners / tenants and the production of	Preliminary works contractor (utilities, roads, archaeology)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>consultation between the landowner/tenant and the mainpreliminary works contractor including inspection of works where applicable and in accordance with requisite site health and safety procedures.</p> <p><i>Preconstruction Soil Statements</i></p> <p>The preliminary works contractor (utilities, roads, archaeology) shall produce Preconstruction Soils Statements for areas of agricultural land within individual land holdings that will be temporarily occupied during the construction of the Schemepreliminary works. These shall provide a baseline schedule of soil condition against which the restoration of the soil will be assessed. The statements shall identify soils resource topsoil and subsoil unit plans and shall include, as a minimum, all pre-construction soil survey information obtained to inform the ES, the development of the Soils Management Strategy (refer to PW-GEO3) and the information gathered from the record of condition surveys (refer to item PW-COM3).</p>	the Preconstruction Soil Statements	
PW-COM3	n/a	<p>Record of Condition survey:</p> <p>The preliminary works contractor (utilities, roads, archaeology) shall undertake a Record of Condition survey to include the following:</p> <ol style="list-style-type: none"> Existing crop regimes; The position and condition of existing field boundaries; The condition of existing access arrangements; The location and type of existing private water supplies; The yield of crops; The quality of grazing land; and The existing weed burden. <p>Photographs and section drawings shall be included in the Record of Condition and it shall be provided to the landowner and occupier alongside the Preconstruction Soils Statement (refer to item MWPW-COM2).</p>	Undertake the Record of condition survey and provide details to The Authority and landowner / occupier.	Preliminary works contractor (utilities, roads, archaeology)
TRAFFIC MANAGEMENT				
PW-TRA1	n/a	<p>Traffic management measures:</p> <p>The preliminary works contractor (all) shall implement appropriate traffic management measures during any relevant preliminary works, where these works could impact on any public roads and / or non-motorised user (NMU) paths.</p> <p>A notice period may be required prior to the implementation of certain temporary traffic management measures including the occupation or temporary closure of existing roads. Traffic management works will be required to comply with the provisions of the DCO and the Traffic Signs Manual: Chapter 8: Traffic Safety Measures and Signs for Road Works and Temporary Situations. Traffic signs will comply with the prevailing regulations as contained within the Traffic Signs Regulations and General Directions.</p> <p>The preliminary works contractor (all) shall ensure that the Streetworks team at Wiltshire Council is kept up to date with the programme of the relevant preliminary works and that the programme and phase by phase plans for traffic management are communicated to the team at least 14 days prior to the commencement of the relevant works.</p> <p>The preliminary works contractor (all) shall consult with English Heritage at the earliest opportunity after</p>	Provision of appropriate traffic management measures.	Preliminary works contractor (all)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		appointment with regard to temporary traffic management measures during the peak season (June, July, August) for the WHS.		

Table 3.2b REAC tables for the main works

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
GENERAL PROVISIONS – EMS and CCS				
MW-G1	n/a	<p>BS EN 14001:</p> <p>The main works contractor shall use an Environmental Management System (EMS) certified to BS EN ISO14001. The main works contractor's EMS will define appropriate control measures and monitoring systems to be employed during the planning and constructing of the works for all relevant topic areas. Where the lead main works contractor is a joint venture, the EMS will be certified to cover the activities of the joint venture.</p> <p>The main works contractor's EMS shall cover the activities of all their sub-contractors. The main works contractor will also be required to coordinate with other contractors and relevant parties that may affect their works. This will be documented in their EMS, as appropriate.</p> <p>As part of their EMS, the main works contractor shall commit to planning works in advance to ensure that, in so far as is reasonably practicable, measures to reduce environmental effects are integrated into the construction methods.</p>	The Authority approval of the EMS. EMS certification to ISO140001, maintained for duration of construction.	Main works contractor
MW-G2	n/a	<p>Environmental Policy:</p> <p>The main works contractor shall develop a Scheme specific environmental policy to be included as part of the EMS. This policy will be developed in line with The Authority's environmental policies and the scheme objectives and will set out how the main works contractor will:</p> <ol style="list-style-type: none"> adhere to the requirements of environmental legislation during the works; commit to mitigating the impacts associated with the works; commit to good practice in environmental performance throughout the phase of works; and identify opportunities to improve the Schemes whole life performance in terms of environmental and social implications. 	Production of the policy and approval by The Authority.	Main works contractor
MW-G3	n/a	<p>Monitoring of actions:</p> <p>The main works contractor's EMS and CEMP shall include procedures to monitor compliance with the Schemes environmental actions and requirements (as set out in these REAC tables) together with provisions for any corrective actions required.</p>	Inclusion of commitment in approved EMS and CEMP.	Main works contractor
MW-G4	n/a	<p>Considerate Constructors Scheme:</p> <p>The main works contractor shall sign up to and adhere to the Considerate Constructors Scheme (CCS).</p>	Certification to CCS standard.	Main works contractor
GENERAL PROVISIONS – CEMP AND RELATED PLANS, METHOD STATEMENTS				
MW-G5	n/a	<p>Preparation of a CEMP:</p> <p>The main works contractor shall prepare a CEMP, in accordance with this OEMP, and obtain the approval of The Authority, prior to the commencement of the relevant project phase.</p> <p>In preparing the CEMP, the main works contractor shall consult with Wiltshire Council, the Environment Agency, Historic England and Natural England on those aspects of the CEMP that are</p>	The Authority approval of the CEMP. Consultation with Wiltshire Council, the Environment Agency,	Main works contractor The Authority (publication)

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>relevant to their functions.</p> <p>When submitting the CEMP to the Authority for approval, the main works contractor must include a summary report setting out the consultation undertaken with Wiltshire Council, the Environment Agency, Historic England and Natural England and the contractor's response to that consultation.</p> <p>If any consultation responses are not reflected in the details submitted to the Authority for approval, the summary report must state the contractor's reasons for not including them.</p> <p>The CEMP and the consultation report must be copied to Wiltshire Council, the Environment Agency, Historic England and Natural England following approval of the CEMP by The Authority.</p>	Historic England and Natural England on preparation of CEMP in respect of matters relevant to their functions.	
MW-G6	n/a	<p>Revision of the CEMP:</p> <p>The main works contractor shall consult with Wiltshire Council, the Environment Agency, Historic England and Natural England on those aspects of the CEMP that are relevant to their functions if the CEMP is to be materially updated or revised.</p> <p>When submitting the updated CEMP to the Authority for approval, the main works contractor must include a summary report setting out the consultation undertaken with Wiltshire Council, the Environment Agency, Historic England and Natural England and the contractor's response to that consultation.</p> <p>If any consultation responses are not reflected in the details submitted to the Authority for approval, the summary report must state the contractor's reasons for not including them.</p> <p>The updated CEMP and the consultation report must be copied to Wiltshire Council, the Environment Agency, Historic England and Natural England following approval of the CEMP by The Authority</p>	<p>The Authority approval of proposed revisions.</p> <p>Consultation with Wiltshire Council, the Environment Agency, Historic England and Natural England on revisions of the CEMP in respect of matters relevant to their functions.</p>	<p>Main works contractor</p> <p>The Authority (publication)</p>
MW-G7	n/a	<p>Management Plans:</p> <p>The main works contractor shall prepare Management Plans for certain environmental topic areas as the detailed design is developed, to include at least the following plans, strategies and policies:</p> <ul style="list-style-type: none"> a) Site Waste Management Plan; b) Emergency Preparedness and Response Plan; (to include a Pollution Incident Control Plan); c) Heritage Management Plan; d) Ground Movement Monitoring Strategy; e) Landscape and Ecology Management Plan; f) Arboricultural Mitigation Strategy; g) Invasive Non-Native Species Management Plan (if required); g)h) Noise and Vibration Management Plan; h)j) Noise Insulation and Temporary Rehousing Policy; i)j) Soils Management Strategy; j)k) Water Management Plan (to include a Flood Risk Management Plan); k)l) Groundwater Management Plan; 	<p>The Authority approval of the plans, with the exception of Heritage Management Plans which will be approved by Wiltshire Council (in consultation with Historic England, to the extent the works that are the subject of the approval would ordinarily trigger the need for scheduled monument consent).</p> <p>Consultation with Wiltshire Council, the Environment Agency, Historic England and Natural England on preparation of and material updates to plans</p>	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p><u>l)m)</u> Materials Management Plan; and <u>m)n)</u> Traffic Management Plan (to include a Construction Workforce Travel Plan, a Site Access Plan, construction traffic routing details and a Site Travel Plan).</p> <p>These plans shall be appended to the CEMP as appropriate. The plans can be submitted and approved individually and no direct inter-dependency between these plans and the CEMP should be inferred in the approval process. These plans shall be approved by the Authority prior to the relevant works commencing. Once approved, the main works shall be carried out in accordance with the approved plans, as updated from time to time. When submitting the plans (or updates of them) to the Authority for approval, the main works contractor must include a summary report setting out the consultation undertaken with the relevant stakeholder(s) required by this OEMP and the contractor's response to that consultation. If any consultation responses are not reflected in the details submitted to the Authority for approval, the summary report must state the contractor's reasons for not including them. The plan and the consultation report must be copied to the relevant stakeholder/s <u>following approval of the plan by The Authority.</u> The main works contractor shall monitor compliance with the approved plans. The main works contractor shall consult with Wiltshire Council, the Environment Agency, Historic England and Natural England on those aspects of the plans that are relevant to their functions, if the plans are materially updated. Some plans may require additional approvals as defined under the DCO Schedule 2: Requirements. <u>Consultation process</u> <u>Where consultation with any party is stated to be required by this Table 3.2c the relevant person responsible for facilitating such consultation pursuant to this OEMP shall undertake the consultation as set out in the relevant provision, unless otherwise agreed in writing between The Authority and the Consultees (as that term is defined below).</u> <u>The main works contractor must submit the relevant document on which consultation is required pursuant to this Table 3.2c (referred to in these provisions as "Consultation Material") to The Authority. The Authority must provide the Consultation Material to the consultees specified in this Table 3.2c as required to be consulted in relation to the relevant document ("Consultee(s)") for comment in respect of matters relevant to each Consultee's functions, together with a named contact at the Authority and the main works contractor with whom the Consultee may discuss the Consultation Material. The Authority shall provide the Consultation Material to the single point of contact specified for that purpose by each Consultee.</u> <u>Each Consultee must provide to The Authority one consolidated marked-up version of the Consultation Material and / or one document containing a table of comments within 20 business days from receipt of the Consultation Material.</u> <u>If any Consultee fails to provide The Authority with comments before the end of the period of 20 business days from receipt of the Consultation Material, that Consultee is deemed to have no</u></p>	<p>in respect of matters relevant to their functions.</p>	

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p><u>comments.</u></p> <p><u>Where Consultees' comments are received by The Authority within the time period specified above, The Authority will provide them to the main works contractor and the main works contractor must have regard to the comments. Where the main works contractor considers it appropriate to do so, it shall address the comments within an amended document.</u></p> <p><u>The main works contractor must submit any amended document to The Authority ("Revised Consultation Material"), alongside the summary report referred to above (or in the case of the HEMP MW-G11) setting out the consultation undertaken and the main works contractor's response to the Consultees' comments (including an explanation for why any comments have not resulted in an amendment to the Consultation Material). At the same time, the main works contractor must provide a copy of the Revised Consultation Material and the summary report to the Consultees.</u></p> <p><u>The Consultees may comment on the Revised Consultation Material only in respect of how their previous comments have been addressed.</u></p> <p><u>Each consultee must provide to The Authority one consolidated marked-up version of the Revised Consultation Material and / or one document containing a table of comments within 10 business days from receipt of the Revised Consultation Material.</u></p> <p><u>If any Consultee fails to provide Highways England with comments before the end of the period of 10 business days from receipt of the Revised Consultation Material, that Consultee is deemed to have no further comments.</u></p> <p><u>The main works contractor must submit any further amended document to The Authority for approval, alongside an update of the summary report referred to above in respect of any further comments on the Revised Consultation Material. At the same time, the main works contractor must provide a copy of the updated document and summary report to the Consultees.</u></p>		
MW-G8	n/a	<p>Method Statements:</p> <p>The main works contractor shall set out the procedures to address health and wellbeing, safety, site security and environmental issues in method statements prepared as part of the construction process. The method statements shall define any specific environmental control measures, to be implemented to meet the requirements of the CEMP, and any relevant topic specific Management Plans, <u>Method Statements and Strategies</u> (refer to MW-G7) and will consider the cumulative effects of concurrent construction activities.</p>	The Authority approval of the method statements.	Main works contractor
MW-G9	n/a	<p>Piling Risk Assessments:</p> <p>The contractor shall undertake environmental risk assessments if piling is proposed at the Countess Junction or in the River Till valley, which shall include consideration of the environmental constraints shown on the Environmental Constraints Plan (refer to Annex A.1 and items MW-BIO3, D-BIO2, D-NOI4 and MW-WAT7).</p>	The Authority approval of the risk assessments.	Main works contractor
MW-G10	ES	<p>Unexploded Ordnance Risk Assessments:</p> <p>The main works contractor shall carry out risk assessments for the possibility of unexploded ordnance being found within construction areas.</p> <p>The main works contractor shall prepare and implement an emergency response procedure to</p>	The Authority approval of the risk assessments.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		respond to the discovery of unexploded ordnance (see also MW-G20). This will include notifications to Wiltshire Council and the emergency services.		
MW-G11	n/a	<p>Handover Environmental Management Plan (HEMP):</p> <p>During the later stages of the construction phase of the Scheme (or separate construction phase, as relevant, e.g. the Winterbourne Stoke bypass) the main works contractor shall prepare a Handover Environmental Management Plan (HEMP) in consultation with the Environment Agency, Wiltshire Council, Natural England and Historic England on matters related to their functions and with The Authority. This will then be implemented by the body responsible for the long-term management of the operational Scheme, approved by The Authority. The HEMP shall be completed prior to the handover of the phase of the Scheme concerned.</p> <p>The HEMP shall be based on the CEMP and the LEMP at the time and will provide the relevant information on existing and future environmental commitments and objectives that would need to be honoured and define on-going actions and risks that need to be managed.</p> <p>The HEMP will include as built information and other details in a form that can be utilised by the body responsible for long term management and maintenance so that body can prepare environmental management plans for the maintenance of the Scheme for the operational phase.</p> <p><u>When submitting the HEMP to the Authority for approval, the main works contractor must include a summary report setting out the consultation undertaken with the relevant stakeholder required and the contractor's response to that consultation.</u></p> <p><u>If any consultation responses are not reflected in the HEMP submitted to the Authority for approval, the summary report must state the contractor's reasons for not including them. The HEMP and the consultation report must be copied to the relevant stakeholder/s. The maintenance authority shall consult with Wiltshire Council, the Environment Agency, Historic England and Natural England on those aspects of the HEMP that are relevant to their functions, if the HEMP is materially updated at any time.</u></p> <p><u>The HEMP shall be completed prior to the handover of the phase of the Scheme concerned. The approved HEMP will then be implemented by the body responsible for the long-term management of the operational Scheme. The HEMP shall be completed prior to the handover of the phase of the Scheme concerned. The maintenance authority shall consult with Wiltshire Council, the Environment Agency, Historic England and Natural England on those aspects of the HEMP that are relevant to their functions, if the HEMP is materially updated at any time.</u></p> <p>Once all construction phases are complete, the main works contractor shall produce a consolidated HEMP, which will then be the main document containing essential environmental information passed to The Authority and the maintenance authority. <u>The maintenance authority (to the extent that this is not Wiltshire Council) shall consult with Wiltshire Council, the Environment Agency, Historic England and Natural England on those aspects of the consolidated HEMP that are relevant to their functions, if the consolidated HEMP is materially updated at any time.</u></p>	<p><u>Consultation with the Environment Agency, Wiltshire Council, Natural England and Historic England on matters related to their functions.</u></p> <p>The Authority approval of the HEMP.</p>	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
GENERAL PROVISIONS – WORKING HOURS				
MW-G12	ES	<p>Core working hours: The main works contractor shall adhere to the following core working hours, except in case of emergency or where site specific variations are defined (refer to MW-G13) or in respect of 'additional working hours' (refer to MW-G14).</p> <p><i>Normal working hours (for all works excluding earthworks and tunnelling)</i> 07:00 – 19:00 Monday to Friday 07:00 – 13:00 Saturday</p> <p><i>Earthworks</i> Summer (defined as British Summer Time (i.e. late March to late October): 07:00 – 22:00 Monday to Saturday with occasional working on Sundays and Bank Holidays Winter (defined as outside of British Summer Time (i.e. late October to late March): As normal working hours above</p> <p><i>Tunnelling:</i> Tunnelling and directly associated activities (such as removal of excavated material, supply of materials (including segments) and maintenance of tunnelling equipment) may need to be carried out on a 24 hours 7 days/week basis. Where reasonably practicable, material will be stockpiled within the site boundary for removal during normal working hours. Excavated material treatment processes (e.g. slurry treatment) can also be on a 24 hours 7 days/week basis.</p> <p>To maximise productivity within the core hours, a period of up to one hour before and up to one hour after normal working hours may be used for start-up and close down of activities. This will include, but not be limited to, deliveries, movement to place of work, unloading, maintenance and general preparation works. These periods will not be considered an extension of core working hours. Except in the case of an emergency, for any work required to be undertaken outside of core hours (not including repairs or maintenance), an application will be made to Wiltshire Council prior to undertaking the works under Section 61 of the Control of Pollution Act 1974. Any variations to core hours and/or additional hours required shall be agreed in writing with Wiltshire Council and The Authority.</p>	n/a	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
MW-G13	n/a	<p>Site Specific Working hours: The main works contractor shall adhere to reduced working hours at the specified locations:</p> <p><i>Normal working hours</i> 07:30 – 18:00 Monday to Friday 07:30 – 13:00 Saturday</p> <p>Location: Chainage 3520 to Chainage 4180 and Chainage 11300 to Chainage 12400.</p> <p>As for MW-G12, a period of up to one hour before and up to one hour after normal working hours may be used for start-up and close down of activities. This will include, but not be limited to, deliveries, movement to place of work, unloading, maintenance and general preparation works. These periods will not be considered an extension of the site-specific working hours.</p> <p>An approach to seeking approval for any variations to site specific working hours will be included within the CEMP in consultation with Wiltshire Council.</p>	n/a	Main works contractor
MW-G14	n/a	<p>Additional Working Hours: The main works contractor is able to undertake work within the existing highway boundaries during night time, Saturday afternoon, Sunday and/or bank holiday working for reasons of safety or operational necessity and this may involve consecutive nights' work over weekends, and may on occasion involve longer durations. Activities outside core working hours that could give rise to disturbance will be kept to a reasonably practicable minimum.</p> <p>Repairs or maintenance of construction equipment that is required to be carried out outside of core working hours will normally be carried out on Saturday afternoons or Sundays between 09:00 and 17:00.</p> <p>In the case of work required in response to an emergency or which if not completed would be unsafe or harmful to the works, staff, public or local environment, Wiltshire Council will be informed as soon as reasonably practicable of the reasons for, and likely duration of, the works. This information will also be made available to The Authority helpline and could include incidents such as where pouring concrete takes longer than planned due to equipment failure or where unexpectedly poor ground conditions, encountered whilst excavating, require immediate stabilisation.</p>	n/a	Main works contractor
MW-G15	n/a	<p>Abnormal Deliveries: The main works contractor shall seek approval from Highways England (with respect to the Strategic Road Network) and from the appropriate local highway authority (all other roads) for delivery of abnormal loads or those that require a police escort if these are to be delivered outside core working hours.</p>	Approval from The Authority and / or Wiltshire Council as relevant to the roads in question.	Main works contractor
MW-G16	n/a	<p>Suspension of works for solstices: The surface works within the western section of the World Heritage Site (WHS) (location: chainage 6000 to chainage 7500), will be suspended during the summer solstice (for a period of up to 48 hours)</p>	Periods of suspension defined in the main works contractor's	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		and at the winter solstice (for a period of up to 48 hours), the timing of the suspension to be determined, based upon the precise timing of the solstices in that year and defined within the CEMP for each relevant year. This suspension would not apply to the tunnelling operation, tunnel related activities or transport of tunnel arisings from the tunnel boring machine to the arisings management area at Longbarrow.	approved CEMP. Consultation with the members of HMAG for the proposed hours and approval by the Authority.	
GENERAL PROVISIONS – PERSONNEL AND TRAINING				
MW-G17	n/a	Personnel: The main works contractor shall appoint suitably qualified and experienced personnel to supervise the main construction works. These will include professionally qualified environmental management staff, with relevant experience in the environmental disciplines included in this OEMP. The roles (minimum requirements) are defined in Table 2.1 of this OEMP.	n/a	Main works contractor
MW-G18	n/a	Training: The main works contractor shall develop and deliver a programme of training on environmental and social issues relevant to the project. As part of the site induction and prior to commencing work on site, all staff will be made aware of their environmental and social obligations, roles and responsibilities and any site restrictions/requirements. The main works contractor shall be responsible for identifying the additional training needs of their personnel to enable appropriate training to be provided and engaging suitably qualified and experienced professionals for this purpose. Training will include site briefings and toolbox talks to equip relevant staff with the necessary level of knowledge on health, safety, community relations and environmental topics, and an ability to follow environmental control measures and to advise employees of changing circumstances as work progresses. The environmental scope should focus on the constraints relevant to any particular part of the works at that time and the relevant controls.	The Authority approval of training programme.	Main works contractor
MW-G19	n/a	Management structure: The main works contractor shall establish a management structure that includes an organisational chart encompassing all staff responsible for delivery of environmental mitigation measures and shall include this chart within the CEMP. The chart will set out the respective roles and responsibilities with regard to the environment and identify the nominated EM, the ECoW, the CRM and other relevant roles (see Table 2.1 for roles). In this structure, the main works contractor shall identify a person at each construction site who will be the single point of contact for the regulatory authorities and stakeholders in relation to concerns as to the construction of the Scheme. The main works contractor shall provide the regulatory authorities with relevant contact details prior to the commencement of construction and document this in the CEMP.	The Authority approval of the CEMP.	Main works contractor
GENERAL PROVISIONS – EMERGENCY PREPAREDNESS AND INCIDENT RECORDS				
MW-G20	n/a	Emergency Preparedness and Response Plan: As part of the CEMP, the main works contractor shall develop an emergency preparedness and	The Authority approval of the CEMP, including the Emergency	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>response plan to cover incidents on site, environmental hazards (flooding, heavy rain, high winds), and other risks that may occur on site.</p> <p>The plan will take into account any specific requirements determined by The Authority. The plan will include the following as a minimum:</p> <ul style="list-style-type: none"> a) 24-hour contact details for all emergency response personnel and the emergency services; b) the location of the nearest hospitals and GP practices including directions from site; c) the procedures for the reporting of, and documenting of emergency incidents including a pollution incident control plan; d) the responsibilities of all staff during an emergency event; and e) the location of all hazardous materials located on site and within the site compounds. <p>The emergency procedures will be produced in consultation with the emergency services and for works on the existing highway network will be produced in accordance with established industry procedures.</p>	Preparedness and Response Plan, in consultation with the emergency services, Wiltshire Council and the Environment Agency.	
MW-G21	n/a	<p>Emergency Access:</p> <p>The main works contractor shall ensure that the requirements of the relevant fire authority are followed for the provision of all site access points. The accesses may vary over time and shall also be suitable for use by ambulances.</p>	Letter of agreement with relevant fire authority.	Main works contractor
MW-G22	n/a	<p>Fire prevention and control:</p> <p>The main works contractor shall ensure all construction sites and associated accommodation and welfare facilities have in place appropriate plans and management controls to prevent fires.</p>	Letter of agreement with relevant fire authority.	Main works contractor
MW-G23	n/a	<p>Extreme weather events:</p> <p>The main works contractor shall so far as reasonably practicable ensure appropriate measures are implemented to ensure the resilience of the proposed mitigation of impacts during extreme weather events.</p> <p>The main works contractor shall ensure the CEMP identifies all measures deemed necessary and appropriate to manage extreme weather events and would specifically cover training of personnel and prevention and monitoring arrangements. Method statements should also consider extreme weather events where risks have been identified.</p>	The Authority approval of the CEMP.	Main works contractor
MW-G24	n/a	<p>Non-conformance and Incidents register:</p> <p>As part of the CEMP, the main works contractor shall establish systems and procedures for responding to environmental incidents. As a minimum, two registers will be set up:</p> <ul style="list-style-type: none"> a) a Non-Conformance & Corrective Action Register (which forms part of the main works contractor's Quality Procedures and is not exclusively for environmental issues); and b) an Environmental Incidents Register. 	The Authority approval of CEMP.	Main works contractor
MW-G25	n/a	<p>Environmental documentation:</p> <p>Copies of all environmental documentation relevant to the works will be filed on site and made</p>	Implementation of the specified actions.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		available for internal inspection.		
GENERAL PROVISIONS – SITE MANAGEMENT				
MW-G26	n/a	Construction site management: The main works contractor shall use the approaches outlined within this OEMP for construction site management and define the approach to site management in the CEMP.	The Authority approval of the CEMP.	Main works contractor
MW-G27	n/a	Worksite security: The main works contractor shall define within the CEMP the proposed approach to worksite security and trespass risk at each site and implement appropriate control measures in accordance with the approved CEMP.	The Authority approval of the CEMP.	Main works contractor
MW-G28	ES Chapter 7, Table 7.5	Construction compounds: <i>Location and design</i> The main works contractor shall follow the below measures in relation to construction compounds: a) the main, eastern and western compounds shall be located as shown in Figure 2.7 and referred to in paragraphs 2.4.12 - 2.4.15 of the Environmental Statement (ES); b) buffer zones shall be created between the compounds and construction works, and existing retained vegetation through construction exclusion zones and suitable perimeter fencing; c) temporary earth bunds, created from excavated soil, shall be located around the perimeter of the compounds; d) all fences, bunds and buildings within compounds (excluding those associated with the slurry treatment and concrete batching plants, refer to item MW-CH4) shall be restricted to one storey (no more than 4m in height); and e) all buildings within compounds shall be in a suitable colour to aid in their integration within the landscape. <i>Hoarding</i> The main works contractor shall define within the CEMP the proposed approach to hoardings around construction compounds, giving consideration to the WHS context (refer also to MW-CH3) and other environmental constraints, including: a) Maintenance of adequate hoardings to an acceptable condition to prevent unwanted access to the construction compounds. b) Hoarding installed around the perimeter of the compounds shall be in a suitable colour, to aid in its integration within the landscape, and kept free of graffiti or posters. c) Providing site information boards. d) Displaying notices on site boundaries to warn of hazards on site.	The Authority approval of the CEMP.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>e) Providing signage to indicate re-routed pedestrian/cycle paths.</p> <p>f) Retaining existing walls, fences, hedges and earth banks for the purpose of screening as far as reasonably practicable and ensure fencing and hoarding is located such that it does not damage sensitive heritage sites, sensitive habitats, trees or hedgerows.</p> <p>Fencing and hoarding shall be kept well maintained throughout construction.</p> <p>Where footways are required, the main works contractor shall provide footways of adequate width to facilitate pedestrian flows with signs provided to facilitate safe access around the site boundary and provide adequate lighting near hoardings to illuminate these footways.</p> <p>The main works contractor shall ensure that hoarding and fencing in areas at risk of flooding, most notably within the floodplains of the River Till and River Avon, will be permeable to floodwater, unless otherwise agreed with the Environment Agency, to ensure that the fluvial floodplain and areas liable to other sources of flooding continue to function effectively for storage and conveyance of floodwater.</p>		
MW-G29	ES Chapter 7, Section 7.8 ES Chapter 8, Section 8.8	<p>Site lighting:</p> <p>The main works contractor shall define within the CEMP the proposed approach to site lighting around construction compounds and elsewhere along the route alignment, giving consideration to the WHS context and other environmental constraints.</p> <p>Lighting shall be at the minimum luminosity necessary and use low energy consumption fittings and should avoid light spillage.</p> <p>Lighting shall also be designed, positioned and directed so as not to unnecessarily intrude on sensitive heritage receptors, adjacent buildings, ecological receptors, structures used by protected species and other land uses to prevent unnecessary disturbance, interference with local residents, or passing motorists on nearby roads. This provision will apply particularly to sites where night working will be required and in particular the tunnelling portal areas.</p>	The Authority approval of the CEMP.	Main works contractor
MW-G30	n/a	<p>Clearance and re-instatement of sites on completion:</p> <p>The main works contractor shall ensure that on completion of construction works, plant, materials, equipment, temporary buildings and vehicles not required during subsequent activities are removed from the site and that land is restored to its former use or in accordance with the requirements of design as appropriate, and that temporary access points are removed or downgraded as appropriate.</p>	Implementation of the specified actions.	Main works contractor
GENERAL PROVISIONS – COMMUNITY ENGAGEMENT, COORDINATION				
MW-G31	n/a	<p>Community Engagement:</p> <p>The main works contractor shall take reasonable steps to engage with nearby residents, especially those who may be detrimentally affected by the Scheme.</p> <p>The main works contractor shall use the following materials to engage with residents and other stakeholders:</p> <p>a) Online – the main works contractor shall provide materials to update the Highways England's website. The sites shall be updated to reflect status of the Scheme, including the latest information on the progress of the construction works, areas affected by construction, mitigation in place to reduce adverse effects of construction, information regarding planned construction works,</p>	The Authority approval of the approach. Consultation with the MoD.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>road closures and works recently completed and an enquiry procedure</p> <p>b) Newsletter – the main works contractor shall prepare a Scheme newsletter and issue it on a regular basis to provide information covering the whole project, the progress to date and the planned construction works.</p> <p>c) Works Notices – the main works contractor shall notify occupiers of nearby or affected properties, businesses, adjacent or affected parish councils and Wiltshire Council, at least two weeks in advance, of the nature and anticipated duration of planned construction works that may affect them. Information included in the notifications will include, as appropriate:</p> <ol style="list-style-type: none"> i. The location of the planned works; ii. The activities to be carried out; iii. The duration of the planned works and the periods within which works will be undertaken (i.e. whether during normal working hours, during the evening or overnight); iv. The anticipated effects of the planned works; and v. The measures to be implemented in line with the CEMP to mitigate the impact of the planned works. <p>d) For tunnel boring, the main works contractor shall distribute information to affected properties and landowners, giving notice along the route of the tunnel drive, along with details of the first point of contact for any queries.</p> <p>e) The main works contractor shall regularly liaise with the Stonehenge Visitor Centre and shall maintain / update information at the centre to advise visitors of the works taking place.</p> <p><u>Liaison with the MoD</u></p> <p>The main works contractor shall consult with the MoD to ensure that the construction design and plant do not interfere with MOD's operations. (including the use of plant) and detailed design of the drainage for the Scheme do not lead to interference with the safe operation of Boscombe Down Airfield.</p>		
MW-G32	n/a	<p>Coordination:</p> <p>The main works contractor shall co-ordinate activities outside of any individual (sub-) contractor's site boundaries, so far as is reasonably practicable, notably in respect of:</p> <ol style="list-style-type: none"> a) community liaison: communicating upcoming activity to affected communities and responding to questions/concerns raised, using the role of Community Liaison Officer (see Table 2.1) and other support staff as relevant; b) emergency response: maintaining communication with emergency services and ensuring that emergency response plans do not conflict; c) traffic management: working collaboratively with the aim of avoiding potential conflict in arrangements and supporting the traffic authority with its duties under the provisions of Traffic Management Act 2004 s 16; d) access to site: communication and collaboration in respect of arrangements for site access and abnormal loads with highway authorities and emergency services; 	The Authority approval of the approach.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>e) construction workforce: monitoring the impact of the workforce on the community in its travel to and from work; and</p> <p>f) other construction projects: maintaining communication between the works on the Scheme and those of other construction projects in the vicinity.</p> <p>Environmental Interface management between adjacent construction areas: The main works contractor shall put in place measures to manage any issues which are relevant to adjacent construction areas, including the boundaries between areas under the control of different (sub-) contractors or where reasonably practicable other third-party contractors.</p>		
AIR QUALITY AND CLIMATE CHANGE				
MW-AIR1	ES Chapter 5, Section 5.8	<p>Best Practicable Means: The main works contractor shall manage dust, air pollution and exhaust emission during the construction works in accordance with Best Practicable Means (BPM), examples of which are set out in Appendix 5.4 of the ES. Specific measures shall be based upon industry good practice, including the measures listed in the Institute of Air Quality Management's (IAQM) Guidance on the Assessment of Dust from Demolition and Construction. These measures will be set out in more detail the CEMP and could include:</p> <p>a) Undertake periodic on-site inspections, where receptors are nearby, to monitor dust, record inspection results, and make the log available to the local authority etc. when asked.</p> <p>b) Remove materials that have the potential to produce dust from site as soon as possible, unless being re-used on site</p> <p>c) Cover, seed or fence stockpiles to prevent wind whipping.</p> <p>d) Impose and signpost a maximum-speed-limit of 15mph on surfaced and 10mph on un-surfaced haul roads and work areas (if long haul routes are required these speeds may be increased with suitable additional control measures provided).</p> <p>e) All construction plant would use fuel equivalent to ultra-low sulphur diesel (ULSD) where possible.</p>	Implementation of BPM.	Main works contractor
MW-AIR2	ES Chapter 5, Section 5.8	<p>Good practice measures at high-risk sites: All high-risk site works close to sensitive receptors are to employ further standard good practice mitigation measures and site-specific mitigation measures where necessary (examples of which are set out in Appendix 5.4 of the ES), which may include:</p> <p>a) Display the name and contact details of person(s) accountable for air quality and dust issues on the construction site boundaries. This may be the environment manager/ engineer or the site manager.</p> <p>b) Record any exceptional incidents that cause dust and/ or air emissions, either onsite or offsite, and the action taken to resolve the situation in the log book.</p> <p>c) Plan site layout so that machinery and dust causing activities are located away from receptors, as far as reasonably practicable.</p> <p>d) Maintain and inspect on-site haul routes for integrity and operate a programme of <u>routing routine</u></p>	Implementation of BPM.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>maintenance and where necessary carry out repairs to the surface as soon as reasonably practicable.</p> <p>e) The details of the further standard mitigation will be outlined in the CEMP produced by the contractor.</p> <p>e)</p>		
MW-AIR3	ES Chapter 5, Section 5.8	<p>Tunnel Ventilation Strategy:</p> <p>The main works contractor shall develop a Tunnel Ventilation Strategy, which will include an appropriate ventilation system during construction of the tunnel.</p>	The Authority approval of the Tunnel Ventilation Strategy.	Main works contractor
MW-AIR4	ES Chapter 5, Section 5.8	<p>Construction Air Quality Monitoring:</p> <p>The main works contractor shall establish a baseline prior to construction at specific sections of the Scheme. This will be determined, where specifically required (i.e. locations of higher risk works closer to sensitive receptors, such as at Countess Roundabout)</p> <p>The duration of baseline monitoring, locations and techniques to be used are to be consulted upon with Wiltshire Council. However, it is anticipated based on the baseline environment (i.e. low ambient particulate concentrations) that monitoring is likely to focus on dust deposition/soiling) with a minimum period of 3 months data collection.</p> <p>The main works contractor shall ensure inspections and monitoring are carried out to assess the effectiveness of measures to prevent dust and air pollutant emissions during works. Monitoring approaches during the construction phase will be consulted upon with Wiltshire Council, including locations and techniques.</p> <p>Monitoring will be continued until the site is deemed to be low risk (i.e. higher risk activities have ceased).</p> <p>The approach to the reporting of air quality monitoring information is to be discussed with Wiltshire Council.</p>	<p>Establishment of air quality baseline prior to construction.</p> <p>Implementation of the specified actions.</p> <p>Consultation with Wiltshire Council on the approach to reporting air quality monitoring information.</p>	Main works contractor
MW-AIR5	ES Chapter 5, Section 5.8	<p>Climate change mitigation:</p> <p>The main works contractor shall implement measures to reduce emissions during the construction of the Scheme, for example through specification of ultra-low sulphur diesel and the management and minimisation of energy use.</p>	Implementation of the measures.	Main works contractor
CULTURAL HERITAGE				
MW-CH1	DCO Requirement 5 ES Chapter 6, Section 6.8	<p>Heritage Management Plan:</p> <p>The main works contractor shall develop a Scheme-wide Heritage Management Plan (HMP), based upon the DAMS-4 in accordance with DCO Requirement 52, indicating how the historic environment is to be protected in a consistent and integrated manner, coordinated with all other relevant environmental topics. The HMP shall be prepared in consultation with the members of the HMAG and WCAS and shall address:</p> <p>a) all temporary and permanent works, including boundary and protective fencing, vegetation clearance, ground investigations, demolition, utility diversions, access routes / haul roads and works compounds.</p>	The plan HMP shall be prepared in consultation with Wiltshire Council and Historic England and, for sites within the members of WHS , HMAG and WCAS 1 , and approved by Wiltshire Council (in consultation with Historic England, to	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		b) potential indirect impacts on heritage assets both inside and outside the WHS from activities such as ground vibration, light pollution, dust, ground movement / subsidence, dewatering, and the impact on buried archaeological remains of adverse ground conditions caused by weather events construction activities (rutting, compaction of soft ground etc.). c) archaeological mitigation measures to be deployed for the installation of the proposed Tunnel Movement Monitoring Stations (Site 26 - refer to Table 2 within Annex 2)). d) issues of security for vulnerable sites / areas of archaeological interest outside the normal working hours, and at weekends. e) measures to avoid light spillage outside of the main compound area. f) procedures for <u>the protection of</u> unexpected archaeological discoveries.	the extent the works that are the subject of the approval would ordinarily trigger the need for scheduled monument consent) prior to the main works commencing.	
MW-CH2	n/a	Working in accordance with the Detailed Archaeological Mitigation Strategy: The main works contractor shall undertake the archaeological works, at all times, in accordance with the Detailed Archaeological Mitigation Strategy.	Compliance with the Detailed Archaeological Mitigation Strategy.	Main works contractor
MW-CH3	ES Chapter 6, Section 6,8	Fencing in the WHS and in the WHS setting: The main works contractor shall consult with the members of HMAG to determine the type of construction boundary fencing to be used within the WHS or within the setting of WHS. The type of fencing will be sympathetic to the setting of the WHS. The main works contractor shall prepare an archaeological Method Statement for the installation of fencing. (refer to MW-CH5) . Any associated archaeological mitigation requirements in accordance with the Detailed Archaeological Mitigation Strategy shall be set out in a SSWSI.	Consultation with the members of HMAG and approval from The Authority on the type fencing within the WHS and WHS setting prior to the main works commencing. Method Statements for fencing developed in consultation with the members of HMAG (Wiltshire Council and Historic England and for fencing within the WHS) or WCAS (for fencing outside the WHS in the WHS setting) and Historic England (for fencing outside of the WHS and in the WHS setting which would otherwise require scheduled monument consent), HMAG, and approved by Wiltshire Council (in consultation with Historic England, to the extent that the works	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
			to construct the fencing would ordinarily trigger the need for scheduled monument consent) prior to the relevant works commencing.	
MW-CH4	ES Chapter 6, Section 6,8	Location of slurry treatment plant and batching plant: The slurry treatment plant and tunnel batching plant at Longbarrow shall be located to the west of the existing tall hedgerow (being retained – approximate chainage 5275); and shown on ES Figure 2.7 (APP-0611).	Adherence to compound layout requirements and building height restrictions.	Main works contractor
MW-CH5	n/a	Archaeological Method Statements: Where potentially sensitive archaeological remains are required to be buried or sealed beneath fill material to ensure they are not disturbed during construction, the main works contractor shall prepare a Method Statement after consultation with the members of HMAG (for sites within the WHS) or WCAS (for sites outside the WHS) and Historic England (for works outside of the WHS which would otherwise require scheduled monument consent) <u>Wiltshire Council and Historic England and, for sites within the WHS, the members of HMAG,</u> prior to the start of the work. The Method Statement will address: <u>a) how the main works contractor intends to preserve in situ sensitive archaeological remains and prevent deformation of topsoil / subsoil horizons (including no-dig solutions); and</u> <u>a)b) measures for monitoring continued protection of in situ archaeological remains; and</u> <u>b)c) where appropriate, how the measures would be reversed following the end of construction, e.g. at compound locations, the ground and the surface returned to its original shape and condition.</u> Areas to be addressed in the Method Statement include: a) All haul roads and traffic diversions. b) Compound locations. c) Cycle-ways between the realigned A360 north to the Stonehenge Visitor Centre and from the realigned A360 south to Druid's Lodge. d) East Parsonage Down. e) Profiling on the Winterbourne Stoke bypass. f) Profiling at Longbarrow roundabout.	Method Statements developed in consultation with the members of HMAG (Wiltshire Council and Historic England and, for sites within the WHS) or WCAS (for sites outside the WHS) and Historic England (for works outside of the WHS which would otherwise require scheduled monument consent), <u>HMAG,</u> and approved by Wiltshire Council (in consultation with Historic England, to the extent the works that are the subject of the approval would ordinarily trigger the need for scheduled monument consent) prior to the relevant works commencing.	Main works contractor
MW-CH6	n/a	Utilities corridors during main works: Should any (post-preliminary works) service / utility corridors require excavation, the main works contractor shall avoid significant archaeological remains wherever possible and implement appropriate archaeological mitigation measures in accordance with the Detailed Archaeological Mitigation Strategy where impacts are unavoidable, DAMS. The main works contractor shall prepare a SSWSI where	SSWSIs prepared in consultation with the members of HMAG (Wiltshire Council and Historic England and, for	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		service utility corridors cross archaeologically sensitive areas, as shown in Annex A.2.	sites within the WHS) and WCAS (for sites outside of the WHS) and Historic England (for works outside of the WHS which would otherwise require scheduled monument consent), HMAG, and approved by Wiltshire Council (in consultation with Historic England, to the extent the works that are the subject of the approval would ordinarily trigger the need for scheduled monument consent) prior to the relevant works commencing.	
MW-CH7	n/a	<p>Monitoring of heritage assets:</p> <p>The main works contractor shall undertake an appropriate level of monitoring of all heritage assets (designated and non-designated) within and close to the Scheme boundary during the construction programme.</p>	Monitoring arrangements prepared in consultation with the members of HMAG (Wiltshire Council and Historic England and, for sites within the WHS) and WCAS (for sites outside of the WHS) and Historic England (for works outside of the WHS which would otherwise require scheduled monument consent), HMAG, and approved by The Authority prior to the relevant works commencing.	Main works contractor
MW-CH8	Detailed Archaeological Mitigation Strategy	<p>Ground Movement Monitoring Strategy</p> <p>The main works contractor shall develop a Ground Movement Monitoring Strategy, to be prepared in consultation with the members of HMAG and to be approved by the Authority. The strategy will identify heritage assets that are at risk from ground vibration from the tunnel, or from ground surface movement caused by settlement. As part of this strategy, the contractor shall develop contingencies</p>	Consultation with the members of HMAG and approval by The Authority prior to tunnelling works	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		and identify measures to ensure the protection of assets.	commencing.	
D-CH1	ES Chapter 6	Visual screening earth bunds running both sides of Green Bridge Three.	n/a	Main works contractor
D-CH2	ES Chapter 6	Break out the road surface of the redundant A303 within the WHS, except to the extent it is required to create a new Public Right of Way and/or Private Means of Access.	n/a	Main works contractor
D-CH3	ES Chapter 6	Break out the road surface of the redundant A360 including Longbarrow Roundabout except to the extent it is required to create a new Public Right of Way and/or Private means of Access.	n/a	Main works contractor
D-CH4	ES Chapter 6	Green Bridge Four shall be 145m – 149.9m wide. The restricted byway shall be constructed to be suitable for use by any vehicle or tractor trailer combinations with a gross vehicle weight of a maximum of 44 tonnes, in accordance with Road Vehicle (Construction and Use) Regulations 1986 (as amended).	n/a	Main works contractor
D-CH5	ES Chapter 6	The new A303 within the WHS western approach shall be in cutting to a minimum 7m depth with retaining walls. The front face of the retaining walls shall have a backwards incline from vertical of no shallower than 1 in 10. Approximately 2.5m of the top of each side of the cutting shall be formed of grassed slopes at approximately 1 in 2	n/a	Main works contractor
D-CH6	ES Chapter 6	A cut and cover tunnel extending westwards from the bored tunnel to at least chainage 7+200m.	n/a	Main works contractor
D-CH7	ES Chapter 6	A cut and cover tunnel length extending eastwards from the bored tunnel to at least chainage 10+485m.	n/a	Main works contractor
D-CH8	ES Chapter 6	At the western end of the Scheme within the WHS no signs shall be set higher than the existing ground level on the lower of the adjacent sides of the cutting and the signs shall not be lit.	n/a	Main works contractor
D-CH9	ES Chapter 6	Tunnel portal lighting will be designed to minimise light spill outside of the portals' footprint.	n/a	Main works contractor
D-CH10	ES Chapter 6	Lighting under Green Bridge Four will only occur between dawn and dusk, be dimmer-controlled <u>able to be varied</u> , and will be designed to minimise light spill outside of the bridge footprint.	n/a	Main works contractor
D-CH11	ES Chapter 6	No <u>permanent</u> road lighting of the Scheme during operation except under Green Bridge Four and, at Countess Roundabout and within the tunnel.	n/a	Main works contractor
D-	ES Chapter 6	Existing lighting units at Countess Roundabout shall be replaced to minimise light spill.	n/a	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
CH12				
D-CH13	ES Chapter 6	No tunnel ventilation shafts within the WHS	n/a	Main works contractor
D-CH14	ES Chapter 6	Provision of fencing and surfacing within the WHS shall be developed in consultation the National Trust, Historic England, English Heritage Trust and Wiltshire Council and approved by The Authority.	Consultation with the National Trust, Historic England, English Heritage Trust and Wiltshire Council and The Authority approval of fencing and surfacing details within the WHS.	Main works contractor
D-CH15	ES Chapter 6	Private Means of Access (PMA) within the WHS, east of Stonehenge Road (PMA ref. no. 27 as shown on the Rights of Way and Access Plans and Schedule 3 of the Draft DCO), shall have a grassed surface to maintain landscape connectivity.	Works undertaken in accordance with Requirement 8.	Main works contractor
D-CH16	Stakeholder engagement	The opening height of the portal entrances to the tunnel shall be no more than that required to satisfy the requirements of Design Standards TD 27 (DMRB 6.1). and BD 78 (DMRB 2.9).	n/a	Main works contractor
D-CH17	Stakeholder engagement	The central support wall of the tunnel canopy structures at each end of the tunnel shall be set back from the leading edge of the structure.	n/a	Main works contractor
D-CH18	Stakeholder engagement	No portal type gantries shall be used in any part of the Scheme.	n/a	Main works contractor
D-CH19	Stakeholder engagement	Wherever the topography requires a variation in retaining wall height, there shall be no steps in the wall height and top of the wall shall follow a smooth alignment.	n/a	Main works contractor
D-CH20	Stakeholder Engagement	There will be no external lighting on the cutting retaining walls, or the external facades of the tunnel control buildings and tunnel portals within the WHS during routine operation of the Scheme.	n/a	Main works contractor
D-CH21	Stakeholder engagement	Looking from above, the tops of the cutting retaining walls shall be set parallel to the adjacent carriageway alignment.	n/a	Main works contractor
D-CH22	Stakeholder engagement	The tunnel buildings shall be underground so that only the front façades of the tunnel buildings shall be visible.	n/a	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
D-CH23	Stakeholder engagement	On Green Bridge Four, the finished ground level shall replicate the existing ground levels, subject to the limits of deviation.	Works undertaken in accordance with Requirement 8.	Main works contractor
D-CH24	Stakeholder engagement	Boundary fencing and gates in the WHS shall be visually recessive and have a low reflectivity finish. Within the WHS, all fencing above the top of the cuttings shall be post and wire with stock-proof netting, and be consistent with other fencing within the WHS. Within the WHS, gates shall be provided at appropriate points to facilitate access. All gates shall be timber, unless otherwise agreed <u>with the members of HMAG, Wiltshire Council (where gates and barriers are required on PRowS) and the Authority.</u>	Consultation with the members of HMAG, Wiltshire Council (where gates and barriers are required on PRowS) and the Authority approval on fencing within the WHS prior to relevant works commencing.	Main works contractor
D-CH25	Stakeholder engagement	The top of new highway boundary fencing within the western cutting shall be no higher than the ground level at the top of the cutting alongside which the fencing runs.	Consultation with the members of HMAG and approval from The Authority on fencing within the WHS prior to relevant works commencing.n/a	Main works contractor
D-CH26	Stakeholder engagement	Any bound surface on PRow within the WHS shall be a maximum of 3m in width. The bound surface on the PRow in the WHS shall be suitably coloured at year one of operation to be visually recessive and sympathetically integrated within the WHS. Trial panels shall be constructed early in the construction period and at least one year in advance of the surface being laid. Prior to the surface being laid, the Authority shall consult with the members of HMAG on the proposed colour of the surface of the PRow in the WHS, taking into account the results of the trial panels. PRow/PMA in WHS shall not have raised edgings, surface markings, lighting, benches, litter bins or other such street furniture. The surface of PRow shall be agreed with the adopting authority, where relevant.	Consultation with the members of HMAG and Wiltshire Council (as Local Highway Authority) and approval from The Authority on surfacing within the WHS prior to relevant works commencing.	Main works contractor
D-CH27	Stakeholder engagement	Any signage for the new PRow/PMA in the WHS shall <u>be</u> of low reflectivity, in-keeping with the character of the WHS, and shall be designed and located in such a way as to ensure no adverse impacts on the OUV of the WHS.	Consultation with the members of HMAG and approval from The Authority on signage within the WHS prior to relevant works commencing.	Main works contractor
D-CH28	Stakeholder engagement	There shall be no permanent raised earthworks within the WHS other than that required for the construction of the Countess Flyover.	n/a	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
D-CH29	Stakeholder engagement	Traffic signals at Longbarrow junction shall have shrouds or louvres to direct the signals towards the intended user and minimise light spill.	n/a	Main works contractor
D-CH30	Stakeholder engagement	Road signs shall be designed and positioned for minimal impact when viewed from the WHS. The posts/settings on which road signs are mounted shall be of low reflectivity. The number of signs shall be the minimum required for the safe operation of the road.	Consultation with the members of HMAG and approval from The Authority on signage within the WHS prior to relevant works commencing	Main works contractor
D-CH31	Stakeholder engagement	Construction haul routes within the WHS shall be within the footprint of the permanent works	n/a	Main works contractor
D-CH32	Stakeholder engagement	Construction of the bored section of the tunnel shall be undertaken using closed face tunnelling techniques.	n/a	Main works contractor
<u>D-CH33</u>	<u>Stakeholder engagement</u>	<u>During development of the operational signage strategy for the Scheme, the main works contractor shall consult with English Heritage Trust, Wiltshire Council and, where relevant, other parties with regard to tourism signage needs.</u>	<u>Consultation with English Heritage and Wiltshire Council.</u> <u>The Authority approval of signage strategy prior to relevant works commencing.</u>	<u>Main works contractor</u>
LANDSCAPE AND VISUAL				
MW-LAN1	n/a	Landscape and Ecology Management Plan: The main works contractor shall prepare a Scheme-wide Landscape and Ecology Management Plan (LEMP), developed in accordance with industry good practice.	The Authority approval of the LEMP, in consultation with Wiltshire Council, the Environment Agency and Natural England.	Main works contractor
MW-LAN2	DCO Requirement 8	Works in accordance with approved landscaping scheme: The main works contractor shall ensure that landscaping works are carried out in accordance with the approved landscaping scheme produced in conformance with Requirement 8 of the DCO.	Works undertaken in accordance with Requirement 8.	Main works contractor
MW-LAN3	n/a	Arboricultural Mitigation Strategy: The arboricultural specialist shall prepare an Arboricultural Mitigation Strategy (AMS) to protect those trees retained within and immediately adjacent to the order limits. This shall consider the following standards:	The Authority approval of the AMS, in consultation with Wiltshire Council	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>a) BS 3936-1: Nursery stock. Specification for trees and shrubs;</p> <p>b) BS 3936-4: Nursery stock. Specification for forest trees, poplars and willows;</p> <p>c) BS 3882: Specification for topsoil and requirements for use;</p> <p>d) BS 3998: Tree Work. Recommendations;</p> <p>e) BS 4428: Code of practice for general landscape operations (excluding hard surfaces)</p> <p>f) BS8545 Trees from nursery to independence in the landscape</p> <p>g) BS 5837: Trees in relation to design, demolition and construction; and</p> <p>h) BS 6031: Code of practice for earthworks.</p> <p>Alternatively, where a British Standard does not exist, works will follow industry good practice, e.g. Natural England's Advice on ensuring heterogeneity of habitats and the managing, restoring, and creating grassland and agreement will be sought from Wiltshire Council.</p> <p>The AMS shall also define:</p> <p>a) The root protection area (RPA) and Construction Exclusion Zones (CEZ) of trees to be retained within or immediately adjacent to the order limits and wherever practicable.</p> <p>b) The approach for working within RPAs, where this cannot reasonably be avoided required.</p> <p>c) The approach to inspecting, maintaining and managing trees and scrub to be retained.</p> <p>d) The approach for felling where otherwise not identified in the ES.</p>		
MW-LAN4	n/a	<p>Planting and seeding:</p> <p>No new trees shall be planted within the WHS except where required for ecological or visual mitigation (e.g. at Countess Roundabout/ Countess Farm), and providing the planting does not adversely impact on visual relationships between monuments conveying the attributes of OUV of the WHS, and such planting is appropriately archaeologically mitigated.</p> <p>In planning planting, seeding, wildflower seeding and other landscape works, the main works contractor shall consider the recommendations of the latest version of industry standards, including Natural England's Advice on managing, restoring, and creating grassland.</p> <p>Early planting:</p> <p>The main works contractor shall implement planting / seeding as early as is reasonably practicable (and where there is no conflict with construction activities or other requirements of the Scheme including Stone Curlew mitigation), so as to be more established in advance of the operation of the Scheme. The main works contractor will consider where these measures can be implemented as described and programme them accordingly.</p> <p>Maintenance:</p> <p>The main works contractor shall undertake appropriate maintenance of planting and seeding works and implementation of management measures, through the construction period as landscape works are completed. The main works contractor shall monitor the progress of these works throughout the construction period.</p> <p>Any failures of landscape planting and seeding will be managed via the specification and works requirements. This will ensure annual replanting and reseeded works are undertaken (as required) to</p>	Successful establishment of all planting and seeding areas.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		achieve successful establishment of the landscape and ecology mitigation proposals at completion of the construction works and during the agreed defects liability period.		
MW-LAN5	Stakeholder Engagement	Earthworks shall be rounded at changes in grade and direction to provide a natural appearance and reflect the surrounding topography.	n/a	Main works contractor
D-LAN1	ES Chapter 7, Appendix 7.7 and 7.8	Break out the road surface of the redundant A303 outside the WHS, except to the extent it is required to create a new Public Right of Way and/or Private Means of Access	n/a	Main works contractor
D-LAN2	ES Chapter 7, Appendix 7.7 and 7.8	1.5m high environmental barrier along the southern edge of the River Till viaduct westbound bridge deck.	n/a	Main works contractor
D-LAN3	ES Chapter 7, Appendix 7.7 and 7.8	No direct impact on the Nile Clumps (protected under a Tree Protection Order). The main works contractor shall maintain the protective fencing installed during the preliminary works phase (refer to PW-LAN1) until all works are complete in the vicinity of the Nile Clumps.	n/a	Main works contractor
D-LAN4	Stakeholder engagement	Consultation with Wiltshire Council on the general external appearance and finishes of the River Till Viaduct, Green Bridges 1 to 3 and the B3083 underbridge.	Consultation with Wiltshire Council.	Main works contractor
D-LAN5	Stakeholder engagement	The non-motorised user crossing of the <u>realigned</u> A360 and the de-trunked existing A303 (<u>to be re-classified as the C507 under the DCO</u>) at <u>the</u> Longbarrow Junction <u>southern roundabout</u> shall be a Pegasus Crossing.	n/a	Main works contractor
BIODIVERSITY				
MW-BIO1	OEMP Table 3.2(a)	<p>Protected and notable species:</p> <p>The main works contractor shall be cognisant of the measures identified in Table 3.2a PW-BIO1 – PW-BIO12 and the results of pre-construction ecological surveys for the following:</p> <ul style="list-style-type: none"> a) breeding birds (all species); b) bat; c) reptile; d) water vole; e) otter; f) badger; and g) great crested newt 	No recorded injury or mortality of protected species.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>The main works contractor shall have responsibility to ensure that works for protected species undertaken during the preliminary works phase, and which are intended to be maintained throughout the main works phase, are appropriately managed.</p> <p>Where protection and measures have been identified which need to be managed, monitored and maintained throughout the main works construction period, the main works contractor shall adhere to these measures. This may include the maintenance of habitat in unsuitable condition for species and the maintenance and monitoring of exclusion zones and seasonal constraints.</p> <p>The main works contractor's ECoW (or appropriate specialist), shall undertake regular site surveys to determine whether any protected or notable species have recolonised sites checked / cleared during the preliminary works. Should such species be identified, appropriate measures to ensure their protection / prevention of recolonisation shall be adopted, this may include supervised site clearance, works under method statements or application for appropriate licences, as per the preliminary works.</p>		
MW-BIO2	Environmental Masterplan (Figure 2.5, ES)	<p>Habitat creation:</p> <p>The main works contractor shall establish the new habitats identified within the Environmental Masterplan (ES Figure 2.5) within the Order limits. These habitats shall be managed accordingly to ensure their establishment and develop to achieve their target purpose(s), through to any handover of the Scheme.</p>	Successful delivery of habitats.	Main works contractor
MW-BIO3	ES Chapter 8, Section 8.8	<p>River Till ecological mitigation:</p> <p><u>Temporary bridge</u></p> <p>The main works contractor shall ensure that the temporary bridge over the River Till is raised a minimum of 1m above the valley floor with supports located outside of the river channel and at least 8m from the boundary of the River Till section of the River Avon SAC. The bridge shall be restricted to a maximum 6m width and shall not be in the same location for a period of more than two years.</p> <p>In the event that it was necessary to extend the use of the temporary bridge beyond two years, the condition of the vegetation would be assessed and there would be consultation with the Environment Agency and Natural England as to whether the bridge should be retained in place for the minimum additional time necessary, or re-positioned. <u>Vegetation</u></p> <p>The main works contractor shall re-establish any habitats lost as a result of temporary land-take in the River Till valley (chainage 3+800m to 4+300) following construction. Monitoring of vegetation during both the construction and operation phases shall be undertaken by the ECoW (or appropriate specialist), until such time as the habitat has been restored to the satisfaction of the Authority.</p> <p><u>Piling</u></p> <p>Non-impact piling shall be used for the construction of both the temporary bridge and the permanent viaduct to reduce the vibration and noise impacts on the aquatic ecology within the river.</p> <p><u>Permanent foundation works</u></p> <p>There shall be no permanent foundation works within 8m of the boundary of the River Till section of the River Avon SAC.</p> <p><u>Otters</u></p>	Agreement by The Authority of the temporary bridge design. Interim monitoring reports.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		The main works contractor shall provide, where reasonably practicable and when water is flowing, allowance for the passage of otters along one or both banks of the River Till within the temporary works arrangements.		
MW-BIO4	ES Chapter 8, Section 8.8	Lighting at important ecological sites: The main works contractor shall, if site lighting is required in the River Till valley or at the existing River Avon Viaduct, adjacent to known bat roosts at Countess Junction, the Nile Clumps, and woodland areas, use directional lamps / hoods / cowls, to ensure that light-spill to the watercourses and their banks is minimised.	Implementation of the identified actions.	Main works contractor
MW-BIO5	n/a	Biosecurity: The main works contractor shall implement measures to promote biosecurity and ensure legal compliance with regards to floral INNS and diseases to avoid and minimise the risk of spread as a consequence of the Scheme. This will include, toolbox talks, exclusion zones, method statements on suitable working practices, which will include but not be limited to the cleaning of equipment (including boots) and vehicles on and off site and between sites, vegetation clearance methods (such as treatments / timings) and the segregation of vegetation arisings, including suitable disposal methods.	Implementation of the identified actions. No recorded spread of invasive species and high standards of biosecurity maintained.	Main works contractor
MW-BIO6	n/a	Invasive species: The main works contractor shall be cognisant of the findings of any pre-works INNS floral survey and any management measures undertaken by The Authority or the preliminary works contractor(s). Should INNS be present within works areas, the main works contractor shall produce an INNS Management Plan which adopts where appropriate any previously produced INNS Management Plans relevant to the Scheme and includes Method Statements addressing how identified species are to be effectively managed and ensure legal compliance. <u>This Should an INNS Management Plan be required, the main works contractor shall consult with Natural England during the development of the plan shall be and the plan</u> included within the CEMP for approval by The Authority.	No recorded spread of invasive species. Production of the INNS Management Plan (if required) <u>in consultation with Natural England</u> and approval by The Authority.	Main works contractor
MW-BIO7	ES Chapter 8, Section 8.8	Great crested newts (GCN): All works within 500m of the known breeding population of GCN will be undertaken under a method statement approved by the Authority, following authorisation from the ECoW (or appropriate specialist). Works within this area will be seasonally constrained (where necessary, works may be undertaken, following approval from the ECoW). The area within the Scheme boundary will be maintained as unsuitable for great crested newts, with no plant or material being stored within this area (unless authorised by the ECoW). Currently it is not considered necessary to apply for an EPS licence, however this will be updated following the pre-construction surveys. At this point, no further great crested newt monitoring surveys are required, this will be dependent on the findings of the pre-construction checks. Location: Great crested newt breeding pond is outside order limits within the River Till valley, south of Foredown Farm; relevant fields within order limits are north of the new alignment adjacent to	No recorded mortality to GCN.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		chainages 4400m to 4800m.		
MW-BIO8	ES Chapter 8, Section 8.8	<p>Schedule 1 and Annex 1 breeding birds:</p> <p><u>Stone curlews:</u></p> <p>Following the preliminary works (vegetation clearance), the working area may provide suitable nesting habitat for stone curlews (open expanses of land lacking vegetation). Due to the sensitivity of stone curlews to human disturbance (they can be disturbed by human activities within 500m of a nest site), it may be necessary (where practical) to deter stone curlew from nesting within, or in proximity of the Scheme, prior to the commencement of works. Deterrent measures could include (but are not limited to) the following:</p> <ol style="list-style-type: none"> maintaining areas of dense crops and grass until it is necessary to access the working area. Installation of visual deterrents, to be confirmed on a site by site basis; planting areas of temporary bare ground with a quick growing crop or quick growing wild flower seed mix or game cover crop to reduce line of sight. <p>These measures should be employed prior to the breeding season (March to August) to deter prospecting pairs.</p> <p>Even with the use of these deterrent measures, there may still be a risk of stone curlews nesting within the Scheme boundary.</p> <p>In the event that nesting stone curlews are found located within the plots established as part of scheme, within the Scheme boundary, or are recorded within 500m of the works area (using binoculars from within the Order limits) then liaison with the Natural England and RSPB will be undertaken. This will aim to identify and agree the specific and appropriate measures and monitoring activities to be undertaken in order to avoid disturbance of the nesting pair. It may be necessary to install an exclusion area of up to 500m from the nest, depending on nesting location. This will be confirmed following confirmation from the ECoW.</p> <p>Stone curlew monitoring: An appropriate specialist, shall undertake monitoring of stone curlews at the retained breeding plots within 500m of the Scheme (where public access is available / can be arranged) and at the newly created nesting plot, associated with the mitigation defined in the ES (Chapter 8).</p> <p><u>Great bustards:</u></p> <p>Great bustards are considered to be sensitive to human disturbance. A precautionary approach has been adopted, whereby in the event that nesting great bustards are found located within the Scheme boundary or within 500m of works, then liaison with the Great Bustard Group will be undertaken. This will aim to identify and agree the specific and appropriate measures to be undertaken in order to avoid disturbance of the nest.</p>	<p>Implementation of the identified actions.</p> <p>Monitoring and reporting arrangements developed by the ECoW in consultation with Natural England, RSPB, or the Great Bustard Group (as appropriate), and approved by The Authority.</p>	Main works contractor
MW-BIO9	ES Chapter 8, Section 8.8	<p>Badgers:</p> <p>All retained badger setts within the Scheme boundary will be subject to regular monitoring and</p>	Implementation of working methods and	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		appropriate action will be taken under the provisions of a licence to deter badgers from establishing new setts in areas or to close newly established setts in areas which will be disturbed by further works. Suitable working methods will be employed in order to reduce the risk of harm to badgers and disturbance of badgers within their setts (as per the preliminary works).	monitoring regime.	
MW-BIO10	ES Chapter 8, Section 8.8	<p>Bat monitoring: The main works contractor's ECoW (or an appropriate specialist) shall undertake crossing point surveys as part of a monitoring programme at pre-defined locations (below). These crossing point surveys will commence at the start of construction continue yearly throughout the construction phase. The landscape surveys shall continue through the construction phase.</p> <p>Locations: The crossing point surveys will be undertaken at the B3083 underbridge, Green Bridge number 2 and Byway 11. The landscape transect locations will be confirmed prior to the surveys along suitable PRoWs. The crossing point and landscape scale surveys will follow current good practice, and the 2018 and 2019 survey methodology defined in the ES.</p>	Completion of surveys and subsequent interim reports of surveys.	Main works contractor
MW-BIO12	ES Chapter 8, Section 8.8	<p>Otter monitoring: The ECoW (or an appropriate specialist) shall carry out monitoring of potential otter (<i>Lutra lutra</i>) resting places to determine if they are in active use by otters. Currently only one otter resting place has been identified within 50m of the Scheme boundary to the south east of Countess Junction (refer to the ES). Where an otter resting place is present or suspected, a suitably qualified ecologist will prepare a method statement for the works to avoid disturbance of otters and ensure the works are legally compliant. Where required, a Natural England EPS licence will be obtained in order to facilitate the works. All works within proximity of suitable otter habitat will be undertaken under a strict method statement. Locations: River Till chainages 4000m to 4100m; River Avon viaduct, chainages 12200m to 12300m</p>	Application and return of Natural England EPS licence (if necessary).	Main works contractor
MW-BIO13	ES Chapter 8, Section 8.8	<p>Botanical monitoring: Details of vegetation monitoring, to be undertaken during the construction phase, to inform future habitat creation, shall be developed by the main works contractor in consultation with Natural England. The ECoW (or an appropriate specialist) will undertake a programme of botanical monitoring to assess the development of a mosaic of early-successional calcareous grassland and associated biodiversity within the Scheme. Results of monitoring from the preliminary works period will be used to inform habitat creation and subsequent management. Management action informed by monitoring may include, but is not restricted to, increase or decrease in the frequency, extent or duration of grazing or mowing, control of scrub, specific habitat management to create or maintain conditions for characteristic species of chalk grassland or other habitats.</p>	Consultation with Natural England. Successful establishment of the landscape and ecology requirements outlined within the LEMP.	Main works contractor
MW-BIO14	ES Chapter 8, Section 8.8	<p>Hedgerows: The main works contractor shall seek to retain hedgerows throughout the Scheme where practicable.</p>	The Authority approval of hedgerow removals.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		Should the removal of hedgerows (which are not identified as to be retained within the Environmental Masterplan) be required, the main works contractor shall seek approval from the Authority prior to the removal of the hedgerow. The main works contractor shall manage all retained hedges within the site boundary. Upon completion of the works, the main works contractor shall reinstate all removed hedgerows in-line with the requirements of the OLEMP.		
D-BIO1	ES Chapter 8, Section 8.8.	River Till Viaduct: The River Till viaduct is to comprise a twin deck viaduct structure with a minimum 7m open gap between the bridge decks. The locations of the piers and foundations shall be a minimum of 8m outside of the boundary of the River Till section of the River Avon SAC.	Adherence to identified design and construction constraints. Consultation with Wiltshire Council.	Main works contractor
D-BIO2	Statement of Common Ground	Piling at River Avon: There shall be no piling works within 8m of the boundary of the River Avon SAC.	Adherence to the identified construction methods and constraints.	Main works contractor
D-BIO3	Statement of Common Ground	Green Bridges: Green bridges shall be designed and delivered having regard to the guidance in the report: Natural England (2015), Commissioned Report NECR181, Green Bridges, Literature Review.	Green bridges designed in line with guidance.	Main works contractor
NOISE AND VIBRATION				
MW-NOI1	ES, Chapter 9, Section 9.8	Best Practicable Means for noise: The main works contractor shall minimise noise and vibration from the construction of the Scheme by employing Best Practicable Means (BPM), as defined under Section 72 of the Control of Pollution Act (CoPA) 1974 and Section 79 of the Environmental Protection Act 1990, at all times. BPM shall consider the recommendations of BS 5228: Code of practice for noise and vibration control on construction and open sites parts 1 and 2 and BS 7385: Evaluation and measurement for vibration in buildings. Guide to damage levels from ground borne vibration. The main works contractor shall detail the application of BPM within the Noise and Vibration Management Plan (see MW-NOI3) BPM should be included in the following order: a) control of noise and vibration at source - such as use of low noise equipment, the provision of acoustic enclosures and the use of less intrusive alarms and the screening of equipment; b) should the application of BPM at source not prove effective and noise exposure exceeds the relevant trigger level (as defined in BS 5228-1, Table E.2), the main works contractor may offer: i. noise insulation; or if that is not successful ii. temporary re-housing.	Implementation of BPM.	Main works contractor
MW-NOI2	n/a	Section 61 Consents: Except in the case of an emergency, for any work required to be undertaken outside of the core hours set out in item MW-G12 (not including repairs or maintenance), the main works contractor shall make	Agreement of Section 61s with Wiltshire Council.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>an application to Wiltshire Council prior to undertaking the works under Section 61 of the Control of Pollution Act 1974.</p> <p>In the event that works for which a Section 61 consent has been applied for have to be rescheduled or modified, e.g. method or working hours, for reasons not envisaged at the time of the Section 61 consent submission, the main works contractor shall apply for a dispensation or variation from Wiltshire Council, in advance of the start of those works.</p>		
MW-NOI3	ES, Chapter 9, Section 9.8	<p>Noise and vibration management plan:</p> <p>The main works contractor shall prepare a noise and vibration management plan detailing the management and monitoring processes to be introduced across all construction sites and compounds. The plan shall include, but not be limited to, the following:</p> <ol style="list-style-type: none"> integration of noise control measures into the preparation of all method statements for the works; details and locations of all site hoardings, screens or bunds that will provide acoustic screening during construction; procedures for the installation of noise insulation (if deemed to be required) or provision of temporary re-housing and to ensure such measures are in place as early as reasonably practicable; noise and vibration monitoring protocols including monitoring locations (see MW-NOI6), stages during construction at which monitoring will be undertaken, and methods of publishing the results; details of inspection and maintenance schedules to be undertaken; processes to ensure ongoing compliance with all controls and consent for the works; and process for implementing corrective actions that may be required to avoid or address a potential non-compliance. 	The Authority approval of the Noise and Vibration Management Plan, in consultation with Wiltshire Council.	Main works contractor
MW-NOI4	n/a	<p>Noise insulation and temporary re-housing:</p> <p>The main works contractor shall have a Noise Insulation and Temporary Rehousing Policy <u>developed in consultation with Wiltshire Council</u>, for the Scheme. The policy will set out all roles, responsibilities and actions required in respect of these measures.</p> <p>Notwithstanding the measures set out in this OEMP and any agreements with Wiltshire Council, noise insulation or temporary re-housing will be offered to qualifying parties when:</p> <ol style="list-style-type: none"> noise levels are predicted or measured by the main works contractor to exceed the relevant trigger level (as defined in BS 5228-1, Table E.2) for at least 10 days out of any period of fifteen consecutive days or alternatively 40 days in any six month period at affected properties; the property complies with all other requirements of the Noise Insulation Regulations 1975 (as amended); the property is lawfully occupied as a permanent dwelling; and noise insulation does not already exist that is of an equivalent standard to that which would be 	<u>Implementation Consultation with Wiltshire Council and the implementation of, and adherence to, the policy.</u>	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>allowed for under the Noise Insulation Regulations 1975 (as amended).</p> <p>The main works contractor shall consider all applications supported by evidence for noise insulation or temporary rehousing from occupiers who may have special circumstances. Special circumstances could include night workers, those working in home occupations, local businesses or buildings that provide community facilities requiring a particularly quiet environment and those with a medical condition which will be seriously aggravated by construction noise, and provide noise insulation or temporary re-housing where it is demonstrated that this is necessary.</p>		
MW-NOI5	ES, Chapter 9, Section 9.8	<p>Vibration</p> <p>The main works contractor shall take into account the following guidance when establishing criteria, controls and working methods for vibration management:</p> <ol style="list-style-type: none"> BS 5228 – 2 Code of practice for noise and vibration control on construction and open sites; ISO 4866: 2010 Mechanical vibration and shock. Vibration of fixed structures. Guidelines for the measurement of vibrations and evaluation of their effects on structures; and BS 7385 - 2 Evaluation and measurement for vibration in buildings – Part 2: Guide to damage levels from groundborne vibration <p><u>Protection of building occupants from disturbance</u></p> <p>No start-up or shut down of vibratory plant e.g. rollers or compactors, within 50m of receptors.</p> <p>The main works contractor shall refer to BS 5228-2 for guidance levels in terms of Peak Particle Velocity (PPV). If predicted vibration levels exceed 1mms^{-1} component PPV at occupied residential buildings based on the prediction methodology in BS 5228-2, Wiltshire Council and those potentially affected will be notified as soon as practicably possible in advance of the works. The notification will describe the nature and duration of the works and any associated proposals for vibration monitoring in the event that is required.</p> <p><u>Protection of buildings from damage</u></p> <p>The main works contractor shall use BPM to control vibration levels so that the PPV, as measured in accordance with BS 7385-2 Evaluation and measurement for vibration in buildings – Part 2: Guide to damage levels from groundborne vibration, are generally not exceeded. The main works contractor shall carry out a scoping vibration appraisal to determine whether the trigger level of 6mms^{-1} (Table 9.6, Chapter 9 of the ES) is likely to be exceeded. Activities requiring an appraisal could include tunneling, vibratory compaction, impact or vibratory piling and other driven processes.</p> <p>The main works contractor shall notify and consult Wiltshire Council regarding any works predicted to generate a PPV above 6mms^{-1}. Where it is determined that there is no reasonable or practicable means to reduce predicted or measured vibration then the main works contractor shall:</p> <ol style="list-style-type: none"> agree and consult with Wiltshire Council regarding monitoring for vibration and strain induced in the building during the works; consult occupiers of properties about: <ol style="list-style-type: none"> the surveys to be carried out and any consequent actions; and any additional reasonable and practicable mitigation to be provided for occupants; and carry out a condition survey before and after the relevant works. 	Completion of appropriate assessments, identification of buildings / properties / cultural heritage assets at risk and consultation on actions with relevant parties as applicable.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>The main works contractor shall identify any buildings that may be unusually vulnerable to vibration, that are located within 50m of any activities that may give rise to significant vibration. Where the predicted vibration at the foundations of such buildings exceeds 3mms^{-1} PPV then the main works contractor shall undertake an initial structural survey of the building. Based on the survey, the level of vibration above which condition surveys and continuous vibration monitoring are required will be confirmed with the building owner and Wiltshire Council.</p> <p><u>Stonehenge Cottages</u></p> <p>The main works contractor shall undertake condition surveys on Stonehenge Cottages pre-and post-tunnelling operations. Should it be identified that damage has occurred to the Cottages as a consequence of the works, appropriate remedial works shall be undertaken in consultation with the parties holding an interest in the land in question.</p> <p>Temporary re-housing would be offered to residents at Stonehenge Cottages if the monitoring of vibration levels at the Cottages on the approach of the TBM under MW-NOI6 indicates that PPV levels exceeding 1mms^{-1} are likely to occur continuously for a period of 48hrs or more during each tunnel bore and providing the property is lawfully occupied as a permanent dwelling. The vibration monitoring requirements are set out in MW-NOI6.</p> <p><u>Protection of Sensitive Cultural Assets, excluding buildings</u></p> <p>The main works contractor shall identify, in consultation with the members of HMAG, any potentially vibration sensitive cultural heritage assets, including the Stonehenge Monument and barrows, based on the sensitivity of the assets and proximity to tunnelling works. Should assets be identified, actions to control or mitigate impacts (including monitoring) shall be agreed between the main works contractor, the operator of the equipment and The Authority as appropriate, in consultation with the members of HMAG.</p>		
MW-NOI6	ES, Chapter 9, Section 9.8	<p>Monitoring of noise and vibration:</p> <p>The main works contractor shall undertake and report noise and vibration monitoring as is necessary to ensure and demonstrate compliance with all noise and vibration commitments and the requirements of the Noise and Vibration Management Plan (MW-NOI3).</p> <p>The main works contractor shall undertake regular onsite observation monitoring and checks/audits to ensure that BPM is being employed at all times. The site reviews will be logged and any remedial actions recorded. Such checks will include:</p> <ol style="list-style-type: none"> compliance with hours of working; presence of mitigation measures e.g. engines doors closed, airlines not leaking, and site hording in place; number and type of plant; compliance with agreed working methods; and compliance with any specific requirements of the Noise and Vibration Management Plan. <p>Proposals for all monitoring locations will be set out in the Noise and Vibration Management Plan.</p> <p><u>Stonehenge Monument</u></p> <p>Vibration monitoring will be undertaken at the Stonehenge Monument, when the TBM is within 250m of</p>	Inclusion of monitoring proposal with the Noise and Vibration Management Plan. Adhering to the specified monitoring regime throughout the construction period.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>the monument, the details of which will be <u>determined in consultation with the English Heritage Trust</u> and set out in the Noise and Vibration Management Plan.</p> <p><u>Stonehenge Cottages</u> Vibration monitoring will be undertaken at Stonehenge Cottages when the TBM is within 250m of the cottages. Residents of the cottages will be offered temporary re-housing if the conditions of MW-NOI5 are met.</p> <p><u>Stonehenge Visitor Centre</u> Vibration monitoring will be undertaken at the Stonehenge Visitor Centre during the construction period, the details of which will be determined in consultation with the English Heritage Trust and set out in the Noise and Vibration Management Plan.</p>		
D-NOI1	ES Chapter 9, Appendix 9.8	The Contractor shall provide a thin surfacing solution on the mainline of the new A303 and its associated slip roads.	n/a	Main works contractor
D-NOI2	ES Chapter 9, Appendix 9.8	1.8m high absorptive noise barriers along both the north and south edges of the Countess Junction Flyover which conform with the current harmonised Specifications Standard BS EN 14388 (2005) and meet the A3 (DL α 8 to 11 dB) and B3 (DLR>24 dB) standards for sound absorption and airborne sound insulation as specified in BS EN 1793 part 1 and 2 (1998), or equivalent future standards approved by the Authority.	n/a	Main works contractor
D-NOI3	Statement of Common Ground	The noise emitted from operational fixed plant located at the tunnel service buildings shall not exceed the existing background level by more than 0 dB(A) at the nearest residential receptors when assessed in accordance with BS 4142: 2014.	n/a	Main works contractor
D-NOI4	Response to Written Question	Piling at the Countess Junction shall be non-impact piling.	n/a	Main works contractor
D-NOI5	ES Chapter 9, Appendix 9.3	The surface finish of the retaining walls at the approaches to the tunnel portals and at Countess flyover (above the earthworks) shall be designed to reduce the reflection of noise.	n/a	Main works contractor
D-NOI6	ES Chapter 9, Appendix 9.3	Use of a noise absorbent finish to the walls/roof at the entrances/exits of the tunnel and Green Bridge Four.	n/a	Main works contractor
GEOLOGY AND SOILS				
MW-GEO1	ES Chapter 10 Section 10.8.	<p>Contamination Risks:</p> <p>The main works contractor shall implement measures on site, in accordance with CIRIA C741 4th Edition Environmental Good Practice, to assess and control risks to human health and the environment resulting from the disturbance of contaminated land, e.g. construction workers, site visitors, nearby residents and environmental receptors such as controlled waters.</p>	The Authority approval of the CEMP, Method Statements (including measures to protect construction workers), and implementation of the specified actions.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
MW-GEO2	ES Chapter 10, section 10.8.	<p>Groundwater contamination:</p> <p>In the event that unexpected soil or groundwater contamination is encountered during construction the main works contractor is to quantify the extent of the potential risk from the contamination and follow a risk-based approach in accordance with Contaminated Land Report 11, Model Procedures for the Management of Land Contamination (2004) and inform Wiltshire Council. Where significant risks from soil or groundwater contamination are identified, appropriate mitigation (remediation) to reduce to acceptable levels the potential short and long-term health and safety and environmental risks to sensitive receptors will be identified and implemented.</p> <p>Any required additional ground investigations will be undertaken in accordance with UK good practice, including BS 5930:2015 Code of Practice for ground investigations and BS 10175:2011 + A2:2017 Investigation of Potentially Contaminated Sites Code of Practice.</p>	Completion of appropriate GI works and remediation measures.	Main works contractor
MW-GEO3	ES Chapter 10 Section 10.8.	<p>Soils Management Strategy:</p> <p>The main works contractor shall produce a detailed Soils Management Strategy (SMS) based on the outline SMS within Annex A.3. The SMS shall identify the nature and types of soil that will be affected and the methods that will be employed for stripping soil and the restoration of agricultural land (where the restoration of agricultural land is required).</p> <p>The main works contractor shall follow the guidance in Construction Code of Practice for the Sustainable Use of Soils on Construction Sites (2009) when handling agricultural soils and in particular the land to be reprofiled for use as permanent chalk grassland.</p>	The Authority approval of the SMS, in consultation with Wiltshire Council and the Environment Agency in respect of matters relevant to their functions and , for works inside the WHS, the members of HMAG.	Main works contractor
MW-GEO5	ES Chapter 10 Section 10.8.	<p>Naturally occurring radiation of materials:</p> <p>During the tunnelling operation, the main works contractor shall ensure that monitoring of naturally occurring radiation is undertaken (see monitoring section). Appropriate limits shall be identified within the CEMP above which construction personnel cannot work.</p>	Provision of appropriate ventilation and monitoring for confined space working.	Main works contractor
MW-GEO6	ES Chapter 10, section 10.8.	<p>Hazardous substances:</p> <p>The contractor shall control all potentially contaminative materials in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations. All potentially contaminative materials will be properly isolated and banded. Bunds and trays will be regularly checked and maintained. All surface water or other contaminated water, which accumulates in the bund, will be removed by manually controlled positive lift pumps and not by means of a gravity drain. This water will be discharged in an off-site public sewer in consultation with the relevant water companies.</p>	Agreement with water companies for the disposal of contaminated water.	Main works contractor
MW-GEO7	ES Chapter 10, section 10.8.	<p>Excavated materials management:</p> <p>To form part of the Soils Management Strategy, the main works contractor shall develop a:</p> <ol style="list-style-type: none"> Soils Handling Strategy, with reference to BS3882: 2015 Specification for Topsoil and the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Site. This shall incorporate the soils handling measures outlined within the DAMS, identify locations where 	Development of, and adherence to, the Soils Management Strategy.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>archaeological in-situ preservation is required and consider areas to be returned to agricultural use; and</p> <p>b) Soil Resources Plan, which will confirm the soil types, the most appropriate re-use for the different types of soils and proposed methods for handling, storing and replacing soils on-site, <u>including bulk wet-sieving should it be required.</u></p> <p>The main works contractor shall assess excavated soils for any potential risks posed to health and the environment from the reuse of such soils as engineering fill. This will include mitigation of the effects on soils and the spread of contamination to ensure that those soils identified as contaminated are not mixed with uncontaminated soil. All excavated materials proposed for re-use will be required to meet risk-based acceptability criteria. The main works contractor shall ensure soils will be protected from accidental contamination during storage and transit.</p> <p>The main works contractor shall endeavour to return topsoil stripped during the construction of the Scheme as close to its source of origin as possible during restoration. Soils should be reused as soon as is practicable and stored in such a way as to minimise structural damage (so far as reasonably practicable). Additionally, the creation of bare areas of permanently exposed soil that would be vulnerable to erosion processes will be avoided.</p> <p>Topsoil may need to be removed during construction in order to prevent permanent burial beneath other earthworks. Such soils will be stockpiled and re-used, subject to acceptability, in the general earthworks such as landscaping and bunds.</p> <p>The re-use of excavated materials, including tunnel arisings and material excavated for highway cuttings, shall be governed by a Materials Management Plan (refer to MW-MAT2) developed by the main works contractor in accordance with the CL:AIRE Definition of Waste: Development Industry Code of Practice.</p> <p>Should off-site disposal in relation to excavated soil be required, the material will be characterised to determine firstly whether it is Hazardous or Non-Hazardous waste in accordance with the Environment Agency's Technical Guidance WM3. The appropriate disposal facility will, where required, be determined through Waste Acceptance Criteria (WAC) analysis, as required.</p>		
MW-GEO8	ES Chapter 10, Section 10.8.	<p>Construction on or adjacent to land affected by contamination</p> <p>The main works contractor shall implement control measures for construction activities on or adjacent to the land identified as being affected by contamination. This will include the following, as appropriate:</p> <ol style="list-style-type: none"> wheel wash facilities; redundant services near potentially contaminated areas will be either removed or cut off and sealed; material known or suspected to be contaminated will be stockpiled (depending on the source of the material and the nature of the contamination) and tested prior to reuse or disposal. Stockpiles will be placed on a low permeability liner, suitably protected from damage by earthmoving plant. Known or suspected contamination stockpile areas will be tested adequately prior to and after use to ensure that no cross-contamination has occurred; prior to reuse of site-won materials, pre-classification testing of soils will be undertaken; imported fill materials will be required to meet soil and leachate acceptance criteria derived in 	Implementation of the specified actions.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>the detailed design stage;</p> <p>f) piled foundations and ground improvement works located within 50m of potential or known areas of land contamination or with potential to impact Source Protections Zones will require a site-specific environmental risk assessment, and will be identified within the relevant management plans. The main works contractor will adhere to appropriate guidance, including the Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention;</p> <p>g) within areas of known or suspected contamination, measures will be introduced to ensure that buried services will be protected from the ingress of mobile and aggressive contaminants. In the case of drainage runs, the infiltration of surface water into the underlying contaminated ground will be prevented and clean or lined service corridors will be installed to provide a suitable barrier to migrating ground gases adjacent to known/potential sources;</p> <p>h) materials used for the Scheme will be proven 'suitable for use' by adoption of acceptance criteria and will be deposited under either environmental permitting regulations or the Definition of Waste: Development Industry Code of Practice; and</p> <p>i) <u>construction activities will follow good practice guidelines to avoid contamination from leaks, spillages and inappropriate storage of materials on site. Appropriate control measures will be identified and implemented through the CEMP; and</u></p> <p>ii) <u>proposed work areas located within 50m of potential or known areas of land contamination, as identified in the Environmental Statement, shall be investigated using a risk based approach in accordance with Contaminated Land Report 11, Model Procedures for the Management of Land Contamination (2004) both in the pre-construction and construction phases. Where significant risks are identified, further assessment and/or appropriate mitigation (remediation) to reduce to acceptable levels the potential short and long-term health and safety and environmental risks to sensitive receptors will be identified and implemented. Associated additional ground investigations will be undertaken in accordance with UK good practice, including BS 5930:2015 Code of Practice for ground investigations and BS 10175:2011 + A2:2017 Investigation of Potentially Contaminated Sites Code of Practice.</u></p>		
MW-GEO10	ES Chapter 10, section 10.8.	<p>Underground gas monitoring:</p> <p>The main works contractor will prepare and implement a gas monitoring procedure, as appropriate, based on the potential for presence of underground gases. Gas monitoring will be undertaken in accordance with BS8576:2013 Guidance on investigations for ground gas.</p> <p>The main works contractor will undertake monitoring of the atmosphere within excavations for concentrations of oxygen, carbon dioxide, methane and hydrogen sulphide to assess the development of any potentially explosive and / or asphyxiant conditions. In addition, the main works contractor will implement a programme of radon monitoring (potentially generated from the Phosphatic Chalk) during tunnel boring.</p>	Implementation of the specified actions.	Main works contractor
WATER ENVIRONMENT				
MW-WAT1	ES Chapter 11, Section 11.8	The main works contractor shall undertake the works and implement working methods to protect surface water and groundwater from pollution and other adverse impacts, including change to flow, flood storage volume, water levels and quality. This will be completed having regard to industry	Implementation of the identified actions.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		guidance.		
MW-WAT2	ES Chapter 11, Section 11.8.	<p>Water Management Plan (WMP):</p> <p>The main works contractor shall produce a WMP to include identification of watercourses and aquifers and taking into account the guidance contained within the relevant information on pollution prevention provided by the Environment Agency, the Guidance for Pollution Prevention (GPPs) available on the NetRegs website and other Construction Industry Research and Information Association (CIRIA) documents. Specific receptors in the water environment will be listed in the plan. Where appropriate, integrated aquatic ecology and water quality plans shall be developed. The Emergency Preparedness and Response Plan and Pollution Incident Control Plan, detailed in MW-G20 and MW-WAT4 respectively, will include effects on water resources. Environment Agency guidance on pollution incident response planning will be reflected in the emergency plan.</p> <p>The main works contractor shall consult with the Environment Agency and Wiltshire Council (in so far as relevant to its functions as lead local flood authority) during the development of the WMP</p>	The Authority approval of the Water Management Plan, in consultation with the Environment Agency and Wiltshire Council (in so far as relevant to its functions as lead local flood authority).	Main works contractor
MW-WAT3	ES Chapter 11, Section 11.8	<p>Site drainage:</p> <p>The main works contractor shall utilise sustainable methods for construction waste water discharges, including site drainage, surface runoff, and dewatering discharges. This includes discharge to water courses subject to water quality and rate of discharges and scour assessments in accordance with the provisions of the DCO. For discharges to mains foul or combined sewers relevant permissions will be obtained from the statutory undertaker. Discharge to watercourses will, insofar as not dealt with in the DCO, only be permitted where permits or other relevant approval has been obtained. Sufficient time will be made for the Environment Agency to issue permits in accordance with relevant legislation.</p> <p>The main works contractor shall ensure that site drainage meets the effluent and flood risk standards required by the sewerage undertaker and the Environment Agency, as appropriate, in accordance with the relevant permit, and will provide and maintain holding or settling tanks, separators and other measures as may be required to meet those standards. The main works contractor shall ensure that access is provided to the undertaker and Environment Agency so that samples of discharge can be obtained and analysed, and the flows verified as required.</p> <p>The main works contractor shall incorporate the following measures during the construction works:</p> <ol style="list-style-type: none"> all temporary land-take will include adequate areas of land set aside for robust control measures, for example sustainable drainage control; any discharge to sewers and controlled waters will be required to be in accordance with the DCO provisions, having regard to the relevant licensing body's requirements; water flows from sites will be limited during construction to existing runoff rates, unless otherwise agreed with Wiltshire Council or the Environment Agency in accordance with relevant legislation; and the relevant sections of BS 6031: Code of Practice for Earthworks for the general control of site drainage will be followed. 	Granting of any permits / consents (if required outside of the DCO). Adherence to the most current standards.	Main works contractor
MW-WAT4	ES Chapter 11, section 11.8.8	<p>Spill response:</p> <p>The main works contractor shall include spill response procedures in the Emergency Preparedness</p>	Production of the Pollution Incident Control Plan, in consultation with	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>and Response Plan (refer to MW-G20).</p> <p>This will include a Pollution Incident Control Plan, as part of the CEMP, which recognises the risk of pollution from construction activities and presents pro-active management practices to ensure that any pollution incident that may occur, such as a diesel spillage, is minimised, controlled, reported to relevant parties and remediated. The plan will define the criteria for implementing the relevant measures.</p> <p>Environment Agency guidance on pollution incident response planning will be reflected in the emergency plan.</p> <p>These procedures shall include the provision of appropriate incident response equipment, e.g. spill kits, will be available next to particularly sensitive activities or areas of a site (such as fuel storage areas).</p> <p>In the preparation of local pollution incident response measures, the main works contractor shall consult with relevant organisations, including, but not limited to, statutory bodies and other relevant parties, such as the Health and Safety Executive (HSE) (Construction), the Fire Authority, the Ambulance Service, the Environment Agency, Natural England, utilities companies and Wiltshire Council (emergency planning and pollution control functions). Reference should also be made to the Environment Agency's Pollution Prevention Guidelines 21 (Incident Response Planning) and Construction Industry Research and Information Association's (CIRIA's) Environmental good practice – site guide.</p>	<p>the identified relevant organisations.</p> <p>The Authority approval of the Pollution Incident Control Plan.</p>	
MW-WAT5	ES Chapter 11, section 11.8	<p>Pollution incident monitoring:</p> <p>The contractor shall have in place effective arrangements to investigate and provide reports on any potential or actual significant pollution incidents, including:</p> <ol style="list-style-type: none"> a description of the pollution incident, including its location (and Ordnance Survey (OS) grid reference), the type and quantity of contaminant and the likely receptor(s); contributory causes; adverse effects; measures implemented to mitigate adverse effects; and any recommendations to reduce the risk of similar incidents occurring. 	The Authority approval of the CEMP.	Main works contractor
MW-WAT6	ES Chapter 11, Section 11.8	<p>Protection of watercourses:</p> <p>The contractor shall incorporate protection measures for works in or adjacent to watercourses in accordance with requirements set out by the relevant authority (the Environment Agency for works affecting Main Rivers or Wiltshire Council as the Lead Local Flood Authority for works affecting ordinary watercourses). Insofar as it is not dealt with in the DCO, approval will be obtained in advance for all crossings of, diversions to, and work affecting watercourses from the relevant authority. Sufficient allowance will be made for the relevant authority to issue a flood risk activity environmental permit. Insofar as it is not dealt with in the DCO, appropriate protective provisions will be agreed with the relevant authority for works under, over or within a river channel and within 8m of a non-tidal river.</p> <p>The main works contractor shall adopt measures to prevent the deposition of silt or other material in any existing watercourse, lake, borehole, aquifer or catchment area, arising from work operations. The measures will accord with the principles set out in industry guidelines, including CIRIA's report C532:</p>	Granting of any permits / consents (if required outside of the DCO). Adherence to the most current standards.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>Control of water pollution from construction sites, and GPP 5: Works and maintenance on and near water.</p> <p>The main works contractor shall incorporate the following measures during the construction works:</p> <ul style="list-style-type: none"> a) watercourses, including land and/or road drainage, within the construction sites will be maintained; b) protection measures, e.g. fencing, will be in place to protect existing water features from degradation and physical damage during construction; c) all areas with the potential to generate contaminated water will be bunded to prevent the release of contaminants; and d) no work in the channels of either the River Till or River Avon is planned, and measures will be taken with regard to works in the rivers' wider floodplains to limit the release of suspended sediment and solids into the water column. 		
MW-WAT7	ES Chapter 11, Section 11.8	<p>Control of pollution to waterbodies:</p> <p>The main works contractor shall ensure that protection measures to control the risk of pollution are included within the Water Management Plan; these will be consistent with the Environmental Permitting (England and Wales) Regulations 2016, including:</p> <ul style="list-style-type: none"> a) Provision of maps showing the locations, together with address and contact details, of local emergency services facilities such as police stations, fire authorities, medical facilities and other relevant authorities. b) Ensure that site drainage plans and flood risk management plans are available on site and are kept up-to-date. c) Ensure that pollution shut-off valves are used in compounds with formal drainage. d) Ensure staff competence and awareness in implementing plans (including how sources are to be isolated, and contaminated materials removed) and using pollution response kit. e) Provision of contact details for the relevant authorities, such as the Environment Agency, and the persons responsible on the construction site and within the main works contractors' organisation for pollution incident response. f) Provision of contacts with a competent spill response company which can be contacted at short notice for an immediate response (where appropriate). <p>The main works contractor shall consult with the relevant regulatory bodies regarding specific requirements in relation to establishing and operating the concrete batching plant(s). Wash water from any batching plants will not be discharged to the water environment without the approval of the relevant authority.</p> <p>The main works contractor shall ensure that the handling of contaminated excavated material, treatment processes required and the storage of excavated material does not affect the Chalk aquifer. Measures will be put into place to prevent contaminated run off reaching open ground.</p> <p>The main works contractor shall avoid using materials in the permanent or temporary works that could result in direct or indirect discharge of hazardous substances or non-hazardous pollutants to groundwater, as defined under the Groundwater (England and Wales) Regulations 2009.</p>	<p>Permit from Wiltshire Council where required (concrete batching plant).</p> <p>The Authority approval of the Water Management Plan, in consultation with the Environment Agency or Wiltshire Council (in so far as relevant to its functions as lead local flood authority).</p>	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>The main works contractor shall incorporate the following measures during the construction works:</p> <ul style="list-style-type: none"> a) any containers of contaminating substances onsite will be leak-proof and kept in a safe and secure building or compound from which they cannot leak, spill or be open to vandalism. The containers will be protected by temporary impermeable bunds (or drip trays for small containers) with a capacity of 110% of the maximum stored volume. Areas for transfer of contaminating substances (including refuelling areas) will be similarly protected; b) any permanent oil storage tanks and temporary storage of 201 litres or more of oil in drums and mobile bowzers, and ancillary pipe work, valve, filters, sight gauges and equipment require secondary containment, e.g. bunding or drip trays, as defined in the Control of Pollution (Oil Storage) (England) Regulations 2001. Environment Agency guidance on oil storage regulations for business and preventing groundwater pollution from underground fuel storage tanks will be complied with; c) no oil will be stored within 10m of a watercourse or within a Source Protection Zone (SPZ) 1 (nominal minimum 50m provided around all licensed abstractions). Storage within an SPZ 2 (nominal minimum 250m distance) or beyond requires secondary containment, e.g. secondary bunding impermeable to water and oil, with no drainage valve fitted for draining of rainwater. The secondary containment must be sufficient to contain at least 110% of the maximum contents of an oil tank, mobile bowser or intermediate bulk container; d) above-ground pipework will be properly supported, and underground pipework will be protected from physical damage and have adequate leakage detection. All mechanical joints on oil pipes must be easy to inspect. Oil and hydrocarbon underground pipes will not extend into the groundwater saturated zone, unless approval is obtained from the Environment Agency and with risk acceptably mitigated; e) all refueling, oiling and greasing will take place above drip trays or on an impermeable surface (e.g. plant nappy) with sealed drainage or oil interceptor which provides protection to underground strata and watercourses, and away from drains as far as is reasonably practicable. Vehicles and plant will not be left unattended during refueling; f) only construction equipment and vehicles free of oil/fuel leaks which could cause material contamination will be permitted onsite. Drip trays will be placed below static mechanical plant; g) spillage kits will be stored at key locations on site (and defined within the Emergency Preparedness Plan) and in particular at refueling areas. Spillage kits will also be kept with mobile bowzers and staff will be trained in their use; h) all wash down of vehicles (including wheel washing) and equipment will take place in designated areas, and wash water will be prevented from passing untreated into watercourses and groundwater; i) only biodegradable hydraulic oils will be used in equipment working in or over watercourses, and appropriate measures are to be taken to protect erodible earthwork surfaces; and j) non-displacement piling methods, shall be used at green bridges 2 and 4 and Countess Flyover to minimise the creation of preferential pathways into the underlying Chalk groundwater body. 		
MW-WAT8	ES Chapter 11, Section 11.8	<p>Dewatering and abstraction: The main works contractor shall adopt construction techniques which minimise, so far as reasonably</p>	Granting of any permits / consents (if required)	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>practicable, the need for and extent of dewatering and groundwater abstraction.</p> <p>The main works contractor shall be responsible for obtaining the necessary approvals and permits to enable and abstraction and discharge of pumped water in an approved manner.</p>	outside of the DCO).	
MW-WAT9	ES Chapter 11, Section 11.7	<p>Ground treatment:</p> <p>The main works contractor shall seek approval from the Environment Agency, prior to use, for the materials used for ground treatment (such as grouting used at the tunnel portals and cross-passages). The main works contractor will maintain a list of the products authorised for use and undertake appropriate monitoring of groundwater quality.</p> <p>The main works contractor shall agree with the Environment Agency (in consultation with relevant parties) site-specific monitoring proposals for those sites where ground treatment will be used. This could include groundwater quality monitoring around areas subject to ground treatment and visual inspection of adjacent watercourses, where relevant.</p>	Approval of materials to be used from the Environment Agency.	Main works contractor
MW-WAT10	ES Chapter 11, section 11.7	<p>Groundwater Management Plan (GMP):</p> <p>The main works contractor shall develop a Scheme-wide GMP, outlining how groundwater resources are to be protected in a consistent and integrated manner. The Plan shall address:</p> <ol style="list-style-type: none"> Potential effects on groundwater (resources and quality) that fall outside other regulations such as the Environmental Permitting Regulations. An update to the Groundwater Risk Assessment for the final design and construction plan. The groundwater level and water quality monitoring and reporting programme. Development of baseline groundwater conditions and derivation of trigger levels and action levels/mitigation/action plans for exceedances and accidents/incidents. The management of groundwater flood risk. <p>The<u>During the development of GMP, the</u> main works contractor shall consult with the Environment Agency during the development of the GMP and Wiltshire Council with regard to groundwater flood risk component (in so far as relevant to its functions as lead local flood authority); <u>and Natural England with regard to elements of the GMP which may impact the River Avon SAC (which incorporates a section of the River Till).</u></p>	The Authority approval of the GMP, in consultation with the Environment Agency and Wiltshire Council (in so far as relevant to its functions as lead local flood authority), <u>and Natural England with regard to elements of the GMP which may impact the River Avon SAC).</u>	Main works contractor
MW-WAT11	ES Chapter 11, section 11.7	<p>Management of impact on abstraction boreholes:</p> <p>The main works contractor shall recognise the rights of existing abstractors and take measures to avoid or minimise, so far as reasonably practicable, loss or interruption of supply, or provide alternative supplies. The main works contractor will put in place appropriate monitoring and emergency measures to overcome the adverse impact if this occurs.</p> <p>The main works contractor shall recognise the rights of existing abstractors and consult them on measures to avoid or minimise loss or interruption of supply, or provision of alternative supplies. The Environmental Permitting (England and Wales) Regulations 2016, as amended, will apply as appropriate to any discharges of water that are required to ground and surface waters.</p> <p>The main works contractor shall, to limit and manage residual risk from groundwater pollution at</p>	<p>Consultation with abstractors / licence holders and the Environment Agency.</p> <p>Granting of any permits / consents (if required outside of the DCO).</p> <p>Groundwater monitoring and reporting in accordance with the Groundwater</p>	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>abstraction points, apply the following precautionary actions, where applicable:</p> <ol style="list-style-type: none"> where determined, and agreed with the owners/operators or other abstraction licence holders, targeted risk-based audits and checks of water quality monitoring will be undertaken at abstraction sources by the main works contractor. The period of monitoring will be appropriate to the timing and type of work undertaken, and will include a period of baseline monitoring. The need for intermediate monitoring holes and procedures for water and contaminant testing during construction and operation will be discussed with the owners/operators or other abstraction licence holders. the main works contractor will arrange any monitoring of water levels in areas where dewatering of the Chalk aquifer is required; and where the water quality monitoring shows an adverse impact on water quality as a result of the works, the main works contractor will contact the relevant abstractor (licence holder and operator) and the Environment Agency as soon as reasonably practicable. The main works contractor will put in place appropriate emergency measures to overcome the adverse impact where this has resulted from the construction works. These emergency measures may include the transfer of a potable water supply to another water source and informing the water users. Further monitoring and remediation will be arranged as appropriate. <p><i>-Management of impact on Environment Agency monitoring borehole</i></p> <p>The Environment Agency groundwater level monitoring borehole at Berwick Down lies within the DCO boundary close to the current A303 alignment at approximately NGR 405302, 140492. The main works contractor shall agree with the Environment Agency any works needed to retain the borehole for monitoring.</p>	Management Plan.	
MW-WAT1 2	ES Chapter 11, section 11.8	<p>Flood Risk Management Plan:</p> <p>The main works contractor shall prepare a Flood Risk Management Plan to the Authority for approval, as part of the Water Management Plan. The plan will summarise:</p> <ol style="list-style-type: none"> any areas within the 1% AEP plus appropriate allowance for Climate Change, susceptible to groundwater flooding, and other flood risk sources, such as sewer flooding; any applications made, or likely to be made, pursuant to the Environment Agency's protective provisions in the DCO, where required in relation to flood defence, for temporary and permanent works and the status of the works; any specific requirements or conditions of the approval that will be obtained from the relevant consenting bodies; any flood risk management or mitigation measures implemented, or to be implemented, in support of temporary and permanent works proposals; and a statement on the cumulative flood risk impact of temporary and permanent works. <p>The plan shall be developed and implemented following consultation with the Environment Agency and Wiltshire Council (in so far as relevant to its functions as lead local flood authority).</p>	The Authority approval of the Flood Risk Management Plan, in consultation with the Environment Agency and Wiltshire Council (in so far as relevant to its functions as lead local flood authority).	Main works contractor
MW-WAT1 3	ES Chapter 11, section 11.8	<p>Flood Risk – general provisions:</p> <p>The main works contractor shall, where reasonably practicable, minimise works within the 1% AEP plus appropriate allowance for Climate Change flood extent. Temporary compounds and haul routes</p>	Implementation of stated measures.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>will be located outside of the 1% AEP plus appropriate allowance for Climate Change flood extent or the 0.1% AEP flood extent, whichever is larger, and primary overland flow paths wherever reasonably practicable.</p> <p>The main works contractor shall be responsible for obtaining from the Environment Agency updated modelled water levels (1% AEP including climate change) as well as updated information on the required standard of protection of the flood defences.</p> <p>The main works contractor shall ensure that flood risk is managed safely throughout the construction and implementation period, and that all designs minimise built development within the 1% AEP plus appropriate allowance for Climate Change flood extent. If built development is necessary within the 1% AEP plus allowance for Climate Change flood extent, due to the cumulative flood risk effects the scheme may contribute to, through the displacement of flood water, the consequences of this displacement must be mitigated for as well as those which are discussed within the Flood Risk Assessment (FRA) submitted as part of the DCO examination (REP3-008) and include the provision of a safe refuge during a flood event.</p> <p>The main works contractor shall be responsible for providing and maintaining continuous flood defence provision, where relevant, for both permanent and temporary works, to the statutory flood defence level as detailed within the Flood Risk Management Plan produced in accordance with MW-WAT12.</p> <p>The main works contractor shall consider and implement appropriate measures to manage the potential risks of flooding from rivers, localised perched groundwater, overland surface water flows and sewer surcharging, in accordance with the Flood Risk Management Plan produced in accordance with MW-WAT12. This will include consideration of potential flow paths within the site which could become active in the event of extreme rainfall and/or sewer surcharging, particularly during temporary works. Overland flow paths will be determined by site topography, therefore vulnerable operations and materials will be located within elevated parts of the site where reasonably practicable, away from potential flow paths. It will also ensure that designs will minimise built development within the 1% AEP plus allowance for Climate Change. If built development is necessary within the 1% AEP plus allowance for Climate Change flood extent, the consequences of the displacement of flood water must be compensated for. If this is not possible, other appropriate protection measures will be incorporated.</p> <p>The main works contractor shall assess potential build-up of groundwater on the upstream side of below ground structures, as this may lead to rise in groundwater levels and in severe occurrences of groundwater flooding and mitigate where appropriate. At the end of construction, where temporary support, such as sheet piling and secant piles, do not form part of the operational structure, pile walls where required will be removed, cut-down or piped through routes provided to prevent the potential build-up of groundwater.</p>		
MW-WAT1 4	DCO Requirement 10	<p>Surface water drainage:</p> <p>The main works contractor shall ensure that the surface water drainage system reflects the mitigation measures identified within the ES and conforms with Requirement 10 of the DCO.</p>	Works undertaken in accordance with Requirement 10.	Main works contractor
MW-WAT1 5	ES Chapter 11, Section 11.8	<p>Monitoring of water resources:</p> <p><u>General</u></p>	Development of the identified monitoring requirements in	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>The main works contractor shall carry out regular monitoring to identify:</p> <ol style="list-style-type: none"> pollution risks that are unacceptably high; spillages and leakages; non-compliance with the CEMP; and suspected pollution incidences. <p>The main works contractor shall provide monitoring details defined within the design, the scope of works and construction method submissions in consultation with the Environment Agency and Wiltshire Council (in relation to their responsibility for private water supplies). The main works contractor shall also consult with the relevant regulatory body regarding the pollution incident control plan which will set out the measures to be implemented to address any adverse findings from the monitoring procedures during and following completion of construction works.</p> <p><u>Groundwater</u></p> <p>The main works contractor shall, where changes in groundwater levels are predicted to occur as a result of construction activity, which would be considered significant using the methodology defined in the groundwater management plan (refer to MW-WAT10), undertake additional site investigations. Water levels at selected observation piezometers will be monitored before, during and after any dewatering associated with the construction of the tunnel. Additional drainage will be provided as mitigation where necessary. Monitoring arrangements will be in defined within the groundwater management plan.</p>	consultation with the Environment Agency and Wiltshire Council (-in relation to their responsibility for private water supplies) and other relevant bodies.	
MATERIALS				
MW-MAT1	ES Chapter 12, Section 12.8	<p>Site Waste Management Plan (SWMP):</p> <p>The main works contractor shall, in accordance with industry good practice and with consideration of IAN 183/14; <i>(or any replacement for the IAN)</i>, develop and implement a SWMP to:</p> <ol style="list-style-type: none"> identify and record the types, quantities and destination of waste arisings from the Scheme in the SWMP; and report this information to The Authority on a periodic basis; and update the SWMP as appropriate. Define measures in the SWMP to minimise waste arisings from the Scheme and to recover waste materials in accordance with the principles of the waste hierarchy. 	The Authority approval of the SWMP, in consultation with the Environment Agency	Main works contractor
MW-MAT2	ES Chapter 12, Section 12.8	<p>Materials Management Plan (MMP):</p> <p>The main works contractor shall prepare a MMP in accordance with the CL:AIRE Definition of Waste: Code of Practice. The MMP shall incorporate an earthworks method statement covering the excavation, on-site movement, placement and compaction of excavated material.</p>	The Authority approval of the MMP, in consultation with the Environment Agency	Main works contractor
MW-MAT3	ES Chapter 12, Section 12.8	<p>Recovery target:</p> <p>The main works contractor shall seek to achieve a recovery rate of 70% for construction and demolition waste (excluding excavated soil and stones).</p>	Recovery of 70% of construction and demolition waste	Main works contractor
MW-MAT4	ES Chapter 12, Section 12.8	<p>Secondary and recycled aggregates target:</p> <p>The main works contractor shall seek to achieve a rate of 22% use of secondary and recycled</p>	22% use of use of secondary and recycled	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		aggregates, for those applications for which substitution of primary aggregates is technically and economically feasible.	aggregates (where feasible)	
MW-MAT5	ES Chapter 12, Section 12.8	Waste storage on site: The main works contractor shall provide suitable containers for reception and temporary storage of waste on site, and shall arrange for waste to be periodically collected and transported to a suitably licensed facility for treatment or disposal. The main works contractor shall be responsible for obtaining any necessary permits or exemptions for on-site management of waste.	Provision of storage containers as described.	Main works contractor
MW-MAT6	ES Chapter 12, Section 12.8	Waste Monitoring: The main works contractor shall undertake regular audits and inspection of waste management activities to ensure compliance with the requirements of the approved SWMP, statutory controls and other Scheme policies and procedures relevant to the management of surplus excavated material and waste.	Implementation of the SWMP and monitoring requirements.	Main works contractor
PEOPLE AND COMMUNITIES				
MW-COM1	n/a	Notification of works: The main works contractor shall advise landowners, occupiers and agents, as appropriate, regarding the intended commencement of construction works in areas of the site adjacent to agricultural holdings. The main works contractor shall also liaise with landowners, occupiers and agents, as appropriate, regarding the provision of accommodation works and agree the programme of works and access routes to be used by both the construction traffic and, where relevant, agricultural machinery and/or livestock.	Liaison with landowners, occupiers and agents.	Main works contractor
MW-COM2	n/a	Biosecurity (agriculture): The main works contractor shall comply with the requirements of DEFRA and appropriate guidance to avoid, as far as possible, the spread of soil borne, crop and animal diseases. The main works contractor will implement appropriate measures to control run-off to reduce any risks associated with disease transmission.	Implementation of appropriate measures.	Main works contractor
MW-COM3	n/a	Liaison with landowners: The main works contractor, through the Agricultural Liaison officer (ALO), shall liaise with landowners, occupiers and agents, as appropriate, to establish: a) measures to be implemented to maintain livestock water supplies which may be affected due to construction works; b) fencing requirements both during and post-construction; c) <u>locations of potential carcass burial sites.</u> <u>Balancing ponds</u> e) <u>Where balancing ponds are required, the ALO shall liaise with affected landowners,</u>	Implementation of appropriate measures.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<u>occupiers and agents, as appropriate, regarding pond locations.</u>		
MW-COM4	n/a	<p>Restoration of agricultural land and aftercare:</p> <p>Where land is to be restored to agriculture the main works contractor shall liaise with the landowner / tenant, through the ALO, and set out the detail for restoration on each specific area of farmland. The land restoration will proceed with full consultation between the landowner/tenant and the main works contractor including inspection of works where applicable and in accordance with requisite site health and safety procedures.</p> <p><u>Preconstruction Soil Statements</u></p> <p>The main works contractor shall produce Preconstruction Soils Statements for areas of agricultural land within individual land holdings that will be temporarily occupied during the construction of the Scheme. These shall provide a baseline schedule of soil condition against which the restoration of the soil will be assessed. The statements shall identify soils resource topsoil and subsoil unit plans and shall include, as a minimum, all pre-construction soil survey information obtained to inform the ES, the development of the Soils Management Strategy (refer to item MW-GEO3) and the information gathered from the record of condition surveys (refer to item MW-COM8).</p>	Effective communication with landowners / tenants and the production of the Preconstruction Soil Statements	Main works contractor
MW-COM5	n/a	<p>Monitoring of agricultural land:</p> <p>The main works contractor's ALO shall undertake further inspections of restored agricultural land with the landowner/tenant and Highways England's soils experts (and valuer, if required) to assess the progress of the restoration. These will be carried out with timing appropriate to any perceived issues or concerns. Concerns will be assessed by all parties and appropriate remedial actions or compensation agreed within the parameters of the compensation code and/or any previous agreements made at the time of acceptance of the initial restoration works and handover to the landowner/tenant.</p>	Implementation of the specified actions.	Main works contractor
MW-COM6	Statement of Common Ground	<p>Private water supplies:</p> <p>Where an existing private water supply to a farm is adversely and directly affected by the construction of the Scheme, the main works contractor shall, if requested by the farmer or landowner to do so, provide or procure or meet the reasonable cost of the provision of an alternative supply of water (<u>the form and type of which shall be</u> at the contractor's option-). Where the supply is affected temporarily by the construction of the Scheme, then the alternative supply need only be supplied for the period during which it is affected.</p> <p>Where a request is made by the farmer or landowner for a permanent supply due to permanent severance of the existing supply caused by the construction of the Scheme, the main works contractor shall, where provision of an alternative means of supply can be demonstrated by the land owner/farmer to be reasonably required for his business, provide or procure or meet the reasonable cost of a permanent means of alternative supply of water (<u>the form and type (either borehole or mains supply) shall be</u> at the contractor's option).</p> <p><u>Water Supply Statements</u></p> <p><u>The main works contractor shall produce Water Supply Statements for landowners / occupiers who rely on private water supplies which could be affected by the Scheme. These shall identify how water supply is to be maintained in the unlikely event that existing supplies are adversely affected as a</u></p>	Implementation of the specified actions. <u>Provisions of the Water Supply Statement prior to works commencing</u>	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p><u>consequence of the works. The statements shall be produced and provided to landowners / occupiers and The Authority prior to works commencing and include, as a minimum:</u></p> <p><u>a) Details and locations of existing boreholes which supply the landowner / occupier;</u></p> <p><u>b) Recorded results from groundwater monitoring undertaken by the main works contractor (as part of the Groundwater Management Plan) that are relevant to those boreholes;</u></p> <p><u>c) How an emergency will be reported if water is contaminated;</u></p> <p><u>d) The procedure for getting water to a farm and how it will be distributed to animals and residential properties if water is affected on a temporary basis; and</u></p> <p><u>e) The procedure for getting a new supply of water whether from a borehole, mains supply or combination of both to a farm if the water from the boreholes is contaminated on a permanent basis.</u></p>		
MW-COM7	Statement of Common Ground	<p>Agricultural land drainage:</p> <p>The main works contractor shall ensure that the existing land drainage system is not compromised as a result of construction. Land drainage systems will be maintained during construction and reinstated <u>on completion so far as reasonably practicable to a condition that is as effective as the previous condition on completion.</u></p> <p>The ALO will coordinate drainage surveys to establish the existing drainage position including any related farm drainage that may be affected by the Scheme. This will include the design of any land drainage works required during construction, and on the design and timing of any land drainage works required for the subsequent restoration of the land. <u>The ALO shall record the location, condition and characteristics (e.g. depth of installation, pipe type and diameter) of drains cut or disturbed by construction of the Scheme. Any field drainage affected by the Scheme shall be either reinstated or diverted to secondary channel if reasonably practicable. Landowners and occupiers shall be informed, through the ALO, of the design and timing of drainage works required during construction and following completion of the Works, including, where relevant: pipe layout, falls, dimensions and outfalls.</u></p> <p><u>Landowners and occupiers shall be provided with the opportunity to inspect land drainage works as they progress, subject to health and safety and construction considerations.</u></p>	Provision of the drainage survey results and design (if required) to the Authority.	Main works contractor
MW-COM8	Stakeholder consultation	<p>Record of Condition survey:</p> <p>The main works contractor shall undertake a Record of Condition survey to include the following:</p> <p><u>h)a) Existing crop regimes;</u></p> <p><u>h)b) The position and condition of existing field boundaries;</u></p> <p><u>h)c) The condition of existing access arrangements;</u></p> <p><u>h)d) The location and type of existing private water supplies;</u></p> <p><u>h)e) The yield of crops;</u></p> <p><u>h)f) The quality of grazing land; and</u></p> <p><u>h)g) The existing weed burden.</u></p>	Undertake the Record of condition survey and provide details to The Authority and landowner / occupier.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		Photographs and section drawings shall be included in the Record of Condition and it shall be provided to the landowner and occupier alongside the Preconstruction Soils Statement (refer to item MW-COM4).		
TRAFFIC MANAGEMENT				
MW-TRA1	n/a	<p>Traffic management measures (general):</p> <p>The main works contractor shall implement traffic management measures during the construction of the Scheme on all public roads and non-motorised user (NMU) paths materially affected by the works. A notice period shall be required prior to the implementation of certain temporary traffic management measures including the occupation or temporary closure of existing roads, which shall follow consultation with Wiltshire Council.</p> <p>Temporary signs erected during the works will be consistent with the Traffic Signs Manual: Chapter 8. Traffic signs for roadworks and other temporary situations shall comply with the Traffic Signs Regulations and General Directions and will be located where they are clearly visible to road users and cause minimum disruption.</p>	Provision of appropriate traffic management measures.	Main works contractor
MW-TRA2	DCO Requirement 9	<p>Traffic Management Plan (TMP):</p> <p>The main works contractor shall prepare and implement a detailed TMP, developed with reference to the Traffic Management Act 2004 and New Roads and Street Works Act 1991 and in accordance with DCO Requirement 9.</p> <p>The main works contractor shall consult with the following agencies / organisations when developing the TMP:</p> <ul style="list-style-type: none"> a) relevant roads authorities, including Highways England, Wiltshire Council, and the police force; b) Public transport operators; c) the organisers of any major or significant local events, and owners of significant local visitor attractions (including the National Trust and English Heritage Trust); and d) other relevant organisations regarding traffic management and control measures to be implemented to accommodate abnormal traffic. <p>The TMP shall include:</p> <ul style="list-style-type: none"> a) measures to provide for the safety of traffic, the public and construction staff during traffic management works and temporary traffic control measures; b) a programme of traffic management measures to be implemented and details of traffic management proposals for all stages of the works, on affected public roads; c) procedures to be followed for the temporary or permanent closure or diversion of roads or accesses, including demonstration to the relevant authorities that the construction work cannot be carried out safely without the road closure and agreed diversion routes; d) details of measures affecting existing pedestrian, equestrian and cyclist routes, including whether the routes are used by one or more of these groups of road users; e) traffic management layouts, signing and apparatus to be implemented on all affected all local highways, including NMU routes; 	<p>Works undertaken in accordance with Requirement 9.</p> <p>The Authority approval of the TMP, in consultation with Wiltshire Council, and where affecting NMUs within the WHS, the members of HMAG.</p>	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<ul style="list-style-type: none"> f) a plan identifying the roads to be used for all known principal construction materials to be delivered to the site; g) plan of the haul routes to be used; h) procedures for informing local communities of all traffic management schemes in advance of the works; i) measures to be implemented to reduce construction traffic impacts or impacts associated with over-parking by site construction workers on residential streets; j) the name and contact details of the main works contractor's Traffic Control Officer and information and advice for the public regarding ways to raise complaints or request information; k) a register of applications for consents associated with temporary traffic management measures; l) an organogram identifying the named Traffic Control Officer and their lines of reporting; and m) procedures to be followed in relation to the movement of abnormal loads whether related or not to the works 		
MW-TRA3	n/a	<p>Construction Workforce Travel Plan: The main works contractor shall prepare a Construction Workforce Travel Plan (to be included within the TMP). The plan shall include:</p> <ul style="list-style-type: none"> a) identification of a travel plan coordinator and a description of their responsibilities; b) key issues to consider for each compound/construction site or group of sites; c) site activities affecting the surrounding transport network including relevant context plans; d) anticipated workforce trip generation and how it may change during the construction process; e) travel mitigation measures that will be introduced to reduce the impact of construction workforce on the transport network; f) target to reduce individual car journeys by the construction workforce; g) methods for surveying workforce travel patterns; and h) the process for monitoring and reviewing the Construction Workforce Travel Plan. 	The Authority approval of Construction Workforce Travel Plan.	Main works contractor
MW-TRA4	n/a	<p>Site Access Plan (SAP): The main works contractor shall develop a SAP (to be included within the TMP) in consultation with Wiltshire Council, identifying site access and egress routes and points that may be used by the main works contractor and the mechanisms for how they can be varied. The main works contractor shall keep site access / egress points clear at all times and will design and construct site access / egress points to a suitable standard to enable the smooth access / egress of vehicles in a forward direction to limit disruption to road users due to use of the access points. The SAP shall identify proposals and the process for the removal of such access and egress routes when no longer required for the scheme works</p>	The Authority approval of Site Access Plan. Consultation with Wiltshire Council	Main works contractor
MW-TRA5	n/a	<p>Site Travel Plan (STP): The main works contractor shall develop a STP (to be included within the TMP). The plan shall identify routes to site for materials and plant. Final agreed routes will be detailed within the TMP and all sub-</p>	The Authority approval of the Site Travel Plan. The Authority approval of	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		<p>contractors will be provided with copies throughout the duration of the works.</p> <p>Access routes for construction traffic shall be via special and trunk road network(s) and principal roads on the road network only. Should the use of unapproved roads / routes be deemed necessary, this shall be agreed with Wiltshire Council prior to their use. Once approved, use of local roads shall be for the minimum time necessary.</p> <p>Access along residential roads will generally be prohibited unless there are clear reasons for their use. Where residential roads are to be utilised, the residents shall be kept informed in advance of the timing of the works.</p>	local road use (if required)	
MW-TRA6	n/a	<p>Traffic management measures:</p> <p>Where deemed necessary, following consultation with Wiltshire Council and the emergency services, the main works contractor shall;</p> <ol style="list-style-type: none"> provide speed detection cameras at temporary traffic management schemes and undertake road safety audits in accordance with DMRB; install CCTV cameras at agreed locations to monitor the traffic management schemes; and during construction on the line of the existing trunk road, operate a vehicle recovery system to minimise the impact of breakdowns or collisions on the flow of traffic. 	Consultation with the relevant bodies and implementation of actions (if required).	Main works contractor
MW-TRA7	n/a	<p>Site haul routes:</p> <p>The main works contractor shall provide haul routes through the works for use by construction vehicles.</p> <p>Site access points shall be positioned where possible to enable the use of haul routes to be maximised throughout the works, rather than using public roads. Traffic management measures will be provided by the main works contractor where the crossing of public roads is required, with a general presumption in favour of priority to the public highway user.</p>	Provision of haul routes within the works.	Main works contractor
MW-TRA8	n/a	<p>Abnormal loads:</p> <p>Where abnormal loads are required for the works the main works contractor shall inform the police, the highway authorities or bridge and structure owners, as appropriate. The procedures for the movement of abnormal loads will be set out in the TMP.</p> <p>Movement of abnormal loads is controlled by MW-G15.</p>	Development of the TMP in consultation with the identified agencies and organisations.	Main works contractor
MW-TRA9	n/a	<p>Temporary roads / accesses:</p> <p>Where the main works contractor proposes to provide a temporary or substitute road or access or the like, the width and standard of construction and any lighting and signage required shall be suitable for the traffic anticipated to use the route.</p> <p>Temporary or substitute road access shall be maintained by the main works contractor throughout the works to provide adequately for the traffic using the affected routes. The main works contractor will apply for any consents required for temporary traffic management schemes. Temporary roads shall be</p>	The provision of suitable temporary roads and application / granting of required consents.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		reinstated when their use in connection with the networks has finished.		
MW-TRA10	n/a	<p>Mitigation for traffic management measures:</p> <p>Where the proposed traffic management measures may affect the flow of public transport vehicles and the location of public transport stops or shelters appropriate mitigation measures will be implemented, in consultation with the relevant public transport operators. This will take in account the needs of groups with protected characteristics as defined under the Equality Act 2010.</p> <p>Where separate routes used by pedestrians and other NMUs are affected, the main works contractor shall provide (and identify within the TMP) alternative appropriate and accessible routes within the traffic management scheme being implemented. Once agreed, the specific right of way affected will be scheduled with appropriate nomenclature and diversion routes suitably signposted throughout the works.</p>	Provision of the specified actions.	Main works contractor
MW-TRA11	n/a	<p>Monitoring of traffic management measures, traffic flows, and public services:</p> <p>The main works contractor shall outline a monitoring regime within the TMP, to include the below points:</p> <ol style="list-style-type: none"> The main works contractor shall monitor traffic management schemes, traffic levels on roads, routes used to site and site accesses and public roads adjacent to access points to maintain their effectiveness and condition throughout the works and to provide for the safety of traffic, the public and construction staff during traffic management works. The main works contractor shall monitor public transport services with regards to journey times and reliability as well as location of public transport stops or shelters to determine the level of impact. The main works contractor will also liaise with bus service providers and Wiltshire Council to identify any changes in public transport passenger numbers because of service alterations. The main works contractor shall endeavour to assist the traffic authorities in relation to their network management duties insofar as the works affect traffic movement on the local roads, and provide information regarding any foreseen potential delays to traffic or public transport services due to construction works to The Authority and Wiltshire Council. 	Application of an appropriate monitoring regime and implementation of remedial actions (if required).	Main works contractor
MW-TRA12	n/a	<p>Traffic Management during Tunnel Closures:</p> <p>The main works contractor shall, prior to the handover of the works to The Authority, prepare, in consultation with Wiltshire Council, a Tunnel Closure Management Plan (TCMP) setting out, inter alia, the following;</p> <ol style="list-style-type: none"> Procedures to be followed for the planned closure of a single bore, including use of temporary signing, and advance information proposals. Procedures to be followed for unplanned closures of a single or both tunnel bores, either during or outside a planned closure, with particular reference to: <ol style="list-style-type: none"> method of control of access to the eastbound or westbound or both merge slips at Longbarrow or Countess junctions respectively. Signage to be employed on the approved diversion route. 		

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		iii. Measures to be taken at a regional/sub national level to alert drivers of A303 delays. iv. Requirements to liaise with Wiltshire Council's Streetworks Team and the police.		

4 Development of detailed design

4.1 Introduction

- 4.1.1 This section of the OEMP sets out ~~how~~ the basis for the development of the detailed design of the Scheme:
- a) Section 4.2 describes the Design Vision for the Scheme.
 - b) Section 4.3 and Table 4.1, ~~identifies~~identify key Design Principles which will inform the detailed design of the Scheme.
 - c) Section 4.4 addresses Design Commitments, which are included in Table 3.2b Record of Environmental Actions and Commitments for the main works.
 - d) Section 4.5 sets out how The Authority will involve key stakeholders in the detailed design of aspects of the Scheme.
- 4.1.2 The Authority recognises that key stakeholders have valuable experience, knowledge and perspectives and can make a valuable contribution to the development of the detailed design of the Scheme. In developing the Scheme through the pre-application process The Authority has already forged important working relationships with key stakeholders and established forums where the input of those stakeholders has been sought, for example the members of the Heritage Monitoring & Advisory Group⁶ (HMAG), on the Scheme for which it seeks development consent (see paragraphs 1.2.5 and 1.2.6 above). The Authority will continue to engage with key stakeholders through the development of the detailed design. This engagement process will continue, taking into account The Authority's ability to deliver the Scheme, once consent is granted.
- 4.1.3 There are three limbs to The Authority's approach to the development of the Scheme's detailed design which have been, and will continue to be, guided by the overall Design Vision:
- a) Commitments fixed in Design Commitments set out in REAC Table 3.2b within this OEMP;
 - b) Design Principles guiding the development of the detailed design of certain specified aspects of the Scheme; and
 - c) Design consultation on certain specified aspects of the Scheme that are fixed post the grant of consent but before the start of the relevant work through a process of stakeholder consultation on the detailed design.

~~These 'limbs' have been and will continue to be guided by the overall Design Vision.~~

⁶ Wiltshire Council Archaeology Service, National Trust, Historic England, English Heritage

4.2 Design Vision

Highways England's Vision: The Road to Good Design

- 4.2.1 The Applicant is required as part of their operating licence to have due regard to the principles of good design and has published the design guide 'The Road to Good Design'⁷ outlining its key principles. The Applicant's vision as set out in the design guide and which will inform the design going forward is:

"We aim to put people at the heart of our work by designing an inclusive, resilient and sustainable road network; appreciated for its usefulness but also its elegance, reflecting in its design the beauty of the natural, built and historic environment through which it passes, and enhancing it where possible."

Purpose of the Vision

- 4.2.2 This Design Vision ('the Vision') covers the full extent of the Order limits, including the area within the Stonehenge, Avebury and Associated Sites World Heritage Site (WHS).
- 4.2.3 The Scheme provides a unique opportunity for the enhancement of an internationally recognised landscape and its visitor experience, as well as that of local communities.
- 4.2.4 The Scheme presents a 'once in a lifetime' opportunity to respond to the sensitivities and challenges of this landscape and demonstrate imaginative and exemplar design as part of a collaborative approach between the appointed contractor, stakeholders and The Authority.
- 4.2.5 The purpose of the Vision is to:
- a) ensure a holistic approach to the design of the whole Scheme by setting out the overarching design vision;
 - b) guide the tender and detailed design stages of the Scheme;
 - c) provide an aspiration and driver for exemplary design from the appointed contractor;
 - d) provide a point of reference for the design review process;
 - e) demonstrate how the detailed design will take account of the criteria for good design as set out in the National Policy Statement for National Networks, to ensure it is sustainable infrastructure, sensitive to its place, efficient in the use of natural resources and energy used in their construction, matched by an appearance that demonstrates good aesthetics as far as possible.

⁷ Highways England 'the road to good design', 2018, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/672822/Good_road_design_Jan_18.pdf

- f) The Vision distils the overarching aims which have informed the development of the design to date. They have formed the driver for the principles and commitments set out in this Outline Environmental Management Plan.

The Vision's Overall Aims

4.2.6 Applying to the whole of the Scheme, the Vision's overall aims are:

- a) **Respecting and Responding to the Historic Landscape.** The detailed design should take full account of the character of the unique historic landscape in which it sits. This includes the OUV of the WHS, the inter-visibility between monuments, heritage assets and the relationship between the WHS, its immediate setting and wider landscape. The Scheme should show due consideration of the objectives of the WHS Management Plan, to ensure that visibility of the Scheme is minimised, the design is elegant and impacts positively on the user experience within the WHS.
- b) **Integration and Connectivity.** The detailed design should show careful and sensitive alignment of the proposed road in relation to cultural and ecological designations, landform, vegetation and features, so that the Scheme reflects the beauty of the natural, built and historic environment through which it passes. The earthworks design should reflect the rolling landform through its gradients and profiling, to reduce the visibility of the road. New structures should respond to the landform to maximise their concealment. The landscape and ecological design should maintain connectivity for existing habitats, re-establish landcover whilst giving due consideration to the aims and objectives of the WHS Management Plan.
- c) **High quality and imaginative design.** ~~the~~The engineering and architectural design of the Scheme should create a clear design rationale and its context using a co-ordinated palette of materials and finishes, with imaginative design features, e.g. green bridges.
- d) **Unity and elegance.** All structures and features should be considered holistically, to deliver a unified approach sympathetic to their scale, form and mass and opportunities that ~~minimises~~ minimise their visual impact. This should include all highway furniture and hard landscape features. Where highways furniture and structures are visible, they should be elegant and sympathetic to their setting for both the road user and those within the wider landscape. Road signage should be designed for minimal visual impact, ensuring no unnecessary clutter, while ensuring the route is safe.
- e) **User experience and safety.** The Scheme should improve the accessibility of the landscape to local communities, visitors and tourists through new recreational routes and crossings of the proposed road. The Scheme should aim to provide enjoyment and excitement for the road user, using materials and design features which engage with their sense of place and history of the landscape, whilst ensuring the road is easy to navigate through safe and secure infrastructure. The tunnel should

enhance the user experience and become a new point of reference when travelling along the A303.

- f) **Sustainability and Resilience.** Where possible, materials should be locally sourced, reclaimed, recycled and have low carbon impact. All materials should be durable, ~~last~~ and age well across the lifecycle of the Scheme. Drainage run-off from the carriageway should be conveyed to infiltration ponds for treatment as part of a Sustainable Urban Drainage strategy. The Scheme should seek to remove or reduce where possible the environmental impact of traffic and highway infrastructure and be resilient to climate change.

4.2.7 The DCO design reflects the Applicant's Vision for the Scheme through:

- a) **Respecting and Responding to the Historic Landscape** - the tunnel, portals, retained cutting and ~~green bridge~~ Green Bridge Four remove and reduce the sight and sound of traffic pursuant to the WHS Management Plan, as well as respecting the setting of the WHS via the alignment of the route.
- b) **Integration and Connectivity** - the grading out of embankments and the rounding off of cuttings ensures the Scheme's earthworks integrate within the open and rolling landscape. The new NMU routes, including green bridges and the conversion of the existing A303 to a restricted byway, improve public access across the Scheme.
- c) **High quality and imaginative design** - the false cuttings/bunds reduce the visibility of vehicles; the re-use of excavated chalk enables new chalk grassland habitats to develop; the split deck of the River Till retains light to the valley floor; the retained cutting minimises land take within the WHS; the portal design incorporates grassed canopies to conceal them within the landscape; and the siting of Countess Flyover retains the Scheme within the highway boundary.
- d) **Unity and elegance** - the siting of structures minimises their visibility in the landscape; the extensive use of chalk grassland enables a unified pattern of vegetation cover; and the minimising of highways furniture all contribute to one identity for the whole route
- e) **User experience and safety** - the Scheme provides for vehicle and non-motorised users, with the tunnel providing a new reference point on the journey, and the extended recreational routes providing new and improved access between communities and to and within the WHS.
- f) **Sustainability and Resilience** -- road design takes into account the potential effects of climate change, including Sustainable Urban Drainage Systems, and through the use of native plant species

Design Vision for Scheme Sections

4.2.8 The Scheme has been divided into three sections, with each adopting a tailored vision and design response to the varying context in which it is set. The approach in the DCO design and in the principles and commitments set out in this OEMP in

relation to all of the sections fits within has been developed pursuant to the overall Vision for the Scheme.

Western section: Winterbourne Stoke bypass to Longbarrow Junction

4.2.9 The Vision for the western section is to:

- a) **Reflect the downland and River Till character.** The Scheme should integrate earthworks by re-grading the landform sympathetically to the rolling downland and River Till valley sides to integrate the Scheme in the landform. The design for the River Till crossing should provide an elegant and restrained structure which minimises its mass.
- b) **Respect the setting of Winterbourne Stoke.** The Scheme should reduce the visibility of traffic and highways furniture to the north of Winterbourne Stoke and from within Parsonage Down National Nature Reserve, and respect the open character of the River Till valley floor through earthworks, native planting and elegant design of structures.
- c) **Increase access across the landscape.** The Scheme should enhance recreational opportunities across the western section and between the WHS via new routes.
- d) **Respond to the Parsonage Down National Nature Reserve Strategy.** The Scheme should respond to the undulating landform and landcover of the Parsonage Down NNR.
- e) **Respect the Western Setting of the WHS.** The Scheme should consider the design to the west of the WHS holistically with that within the WHS, to achieve a fully integrated design solution.

Central section: within the WHS

4.2.10 The Vision for the central section is to:

- a) **Sustain the OUV of the WHS.** The Scheme should maximise the concealment of structures and features outside of the tunnel from the wider landscape through their siting in the landscape in relation to existing ground levels, choice of materials and colour tone of the finishes. New landscaping and earthworks should not seek to imitate the monuments within the WHS landscape. The dark skies environment should be improved by avoiding road lighting wherever practicable and by the Scheme alignment having regard to Solstice alignments.
- b) **Due consideration of the objectives and policies of the WHS Management Plan.** This should include delivering non-motorised users (NMU) opportunities, the re-use of the existing A303 and connection to existing byways. The Scheme should acknowledge the potential for future access within the WHS, e.g. the reconnection of the Avenue.
- c) **Deliver a high quality user experience.** The Scheme design should include architectural detailing and a choice of materials to enhance the user experience and become a new point of reference while travelling along the A303, whilst being safe and easy to navigate.

Eastern section: Countess Junction to just beyond Solstice Park Junction

4.2.11 The Vision for the eastern section is to:

- a) **Improve linkages while minimising impacts.** The Scheme should utilise the existing Countess Roundabout to limit landtake, while improving the connectivity of the local road network by separating it from the strategic network. This should include improvements to pedestrian access along the A345 and to the east of Solstice Park, whilst not affecting traffic flows on the A303 and minimising negative impacts on local residents.
- b) **Retain/Respect the setting of the River Avon.** The Scheme should avoid impacting on the setting of the River Avon by utilising the existing highway alignment and crossing over the River Avon, reducing the mass of the flyover, ensuring materials and colour tones are sympathetic to its location and maximising the opportunities for new planting.
- c) **Improve User Safety.** The Scheme should enhance road safety and rationalise vehicle movement to improve the road network between Countess Roundabout and the east of Solstice Park, through alterations to slip roads and junctions in combination with changes to public rights of way for non-motorised users.

Design principles and commitments

4.2.12 The design principles and commitments discussed below, have all been guided by the Design Vision.

4.3 Design Principles

4.3.1 The Design Principles are set out Table 4.1. These identify areas of the Scheme's detailed design where Design Principles have been settled, with the precise detail to be determined at detailed design. The areas of the Scheme where this treatment is appropriate are areas where key stakeholders (the members of HMAG) have an acknowledged concern while still facilitating The Authority's ability to deliver the Scheme.

4.3.2 Design Principles describe the common general overall goal or objective, pursuant to the Vision, but are not intended to prescribe the precise means of achieving it. These principles are accompanied, at ~~Appendix XX (to be provided at Deadline 7)~~, Annex A.4, by illustrations which show how key elements of the Scheme could look, when designed in compliance with the Vision, design principles and commitments presented in this OEMP.

4.3.3 The Design Principles approach is also coupled with stakeholder consultation on the development of the detailed design, to give confidence of a robust process that would be followed through from examination into detailed design and delivery.

4.4 Design Commitments

4.4.1 The OEMP contains a number of design commitments, indicated in the REAC Table 3.2b through a reference containing a "D" prefix.

- 4.4.2 As compliance with the OEMP is secured by paragraph 4 of Schedule 2 of the DCO, the ExA and stakeholders can have confidence that the measure will be delivered. There are, however, limitations to what can be secured through this technique. The commitment must be capable of being expressed with sufficient certainty. This is particularly difficult with commitments such as to provide "visually unobtrusive" fencing. For these more ephemeral issues a "design principles" approach is appropriate.

4.5 Design Consultation

- 4.5.1 This section of the OEMP sets out:

- a) Who will be consulted;
- b) What those bodies will be consulted on;
- c) How they will be consulted;
- d) When they will be consulted;
- e) How the Applicant demonstrates its consideration of that consultation;
- f) How disputes will be addressed; and
- g) How the proceedings are recorded and made publicly available.

Who will be consulted

- 4.5.2 The Authority will establish a Stakeholder Design Consultation Group (SDCG) that it will consult on in relation to the specific areas of the detailed design as it is being developed. The SDCG will be administered by The Authority and membership would include representatives of the following stakeholders:

- a) English Heritage Trust;
- b) Historic England;
- c) The National Trust; and
- d) Wiltshire Council.

Once appointed, a representative of the Contractor would also attend.

What those bodies will be consulted on

- 4.5.3 The Authority, and its Contractor once appointed, will consult the SDCG on the external appearance of the following elements of the Scheme within the World Heritage Site:

- a) The tunnel service buildings (Work No.1D(ii));

- b) Portals structures (Work Nos. 1E(ii) and 1G(iii)), retaining walls (part of Work Nos. 1D(ii) and 1H(ii) and 1H(iii) and Green Bridge Four (Work No.1d(i)); and
- c) Public rights of way, including pedestrian, cycling and non-motorised user provision and wayfinding including surfacing, materials, fencing and gating.

4.5.4 Outside of the World Heritage Site, The Authority, and its Contractor once appointed, will consult the SDCG on the external appearance of the following:

- a) Signing and lightingsignalling at the new Longbarrow junction (Work No.1C(ii)); and
- b) Flyover, signing and lighting at the Countess junction (Work No.1H(iv)).

4.5.5 Collectively, the aspects of the Scheme described in paragraphs 4.5.3 and 4.5.4 are referred to as the “Detailed Design” in this section of the OEMP.

How they will be consulted

4.5.6 The Authority anticipates that elements of the Detailed Design may progress at different stages to one another. For example, the restricted byway that will be created along the line of the existing A303 will not be constructed until after the completion and opening to traffic of the new A303. As a minimum the SDCG will be consulted on each part of the Detailed Design prior to the commencement of construction of that part.

4.5.7 In addition, the SDCG will be consulted on the emerging Detailed Design during the process of its development. This will be secured through regular meetings of the SDCG.

4.5.8 Many elements of the Detailed Design do not need to be determined prior to commencement the larger works of which they form part. For example, the materials for finishing the tunnel portals would not need to be consulted upon prior to the commencement of boring the tunnel. However, The Authority is required to consult on the materials for the external finishes to the tunnel portals prior to the installation of those finishes.

When they will be consulted

4.5.9 The SDCG would meet as required during the following stages of the Detailed Design development:

- a) Prior to commencing the development of the Detailed Design;
- b) During the development of the Detailed Design; and
- c) On the Contractor’s submitted Detailed Design, prior to the Applicant’s acceptance of it.

Meetings will be monthly or at greater intervals as agreed.

How the Applicant demonstrates its consideration of that consultation

- 4.5.10 The Authority, and/or its Contractor once appointed, will provide the SDCG with documentation sufficient to understand the relevant part of the Detailed Design, including plans, sections and details of materials and finishes (Consultation Information).
- 4.5.11 The SDCG will receive the Consultation Information no less than 10 working days prior to the meeting of SDCG at which the Consultation Information will be considered.
- 4.5.12 The Authority is obliged to take into consideration the views expressed by the SDCG on the Detailed Design and will make the final decision on whether to implement them according to whether it is appropriate, reasonable and feasible to do so, taking into account considerations including but not limited to cost and engineering practicability.

How disputes will be addressed

- 4.5.13 The Authority envisages that disputes will be kept to an absolute minimum by the continued proactive engagement and collaborative working between the Authority and SDCG. In the exceptional event that it was not possible for the SDCG and The Authority to reach agreement on any specific aspect of the Detailed Design, any party to the disagreement would escalate the matter ~~within their parent organisations~~ to a sufficiently senior person, short of the Chief Executive, or equivalent level, and, within their parent organisation. If the matter in dispute is not resolved within 10 working days of being escalated, the matter in dispute is to be further escalated to each party's Chief Executive (or equivalent or Chief Engineer in the case of The Authority, to its Chief Engineer,) with a view to resolving the disagreement. If the matter in dispute is not resolved within 5 working days of referral to Chief Executive level, paragraph 4.5.14 applies.
- 4.5.14 The Authority, is the Strategic Highways Company with the responsibility for operating the strategic road network and responsible for delivering the Scheme. As such, it is appropriate that the final decision on detailed design remains its preserve, using its expertise and knowledge as to what would be appropriate and operationally feasible in the context of the Scheme.
- 4.5.15 Following a meeting of the SDCG that considers Consultation Information, the Authority and/or its Contractor will prepare a summary explaining how the Detailed Design responds to the views recorded in the minutes of that meeting, and, where the Detailed Design departs from those views, the reasons for that departure.

How the proceedings are recorded and made publicly available

- 4.5.16 The Authority, and/or its Contractor once appointed, will maintain on a publicly accessible website records comprising:
- a) The Consultation Information;
 - b) The minutes of any meeting of the SDCG insofar as it relates to the Consultation Information;

c) The summary required by paragraph 4.5.15.

Table 4.1 Design development principles

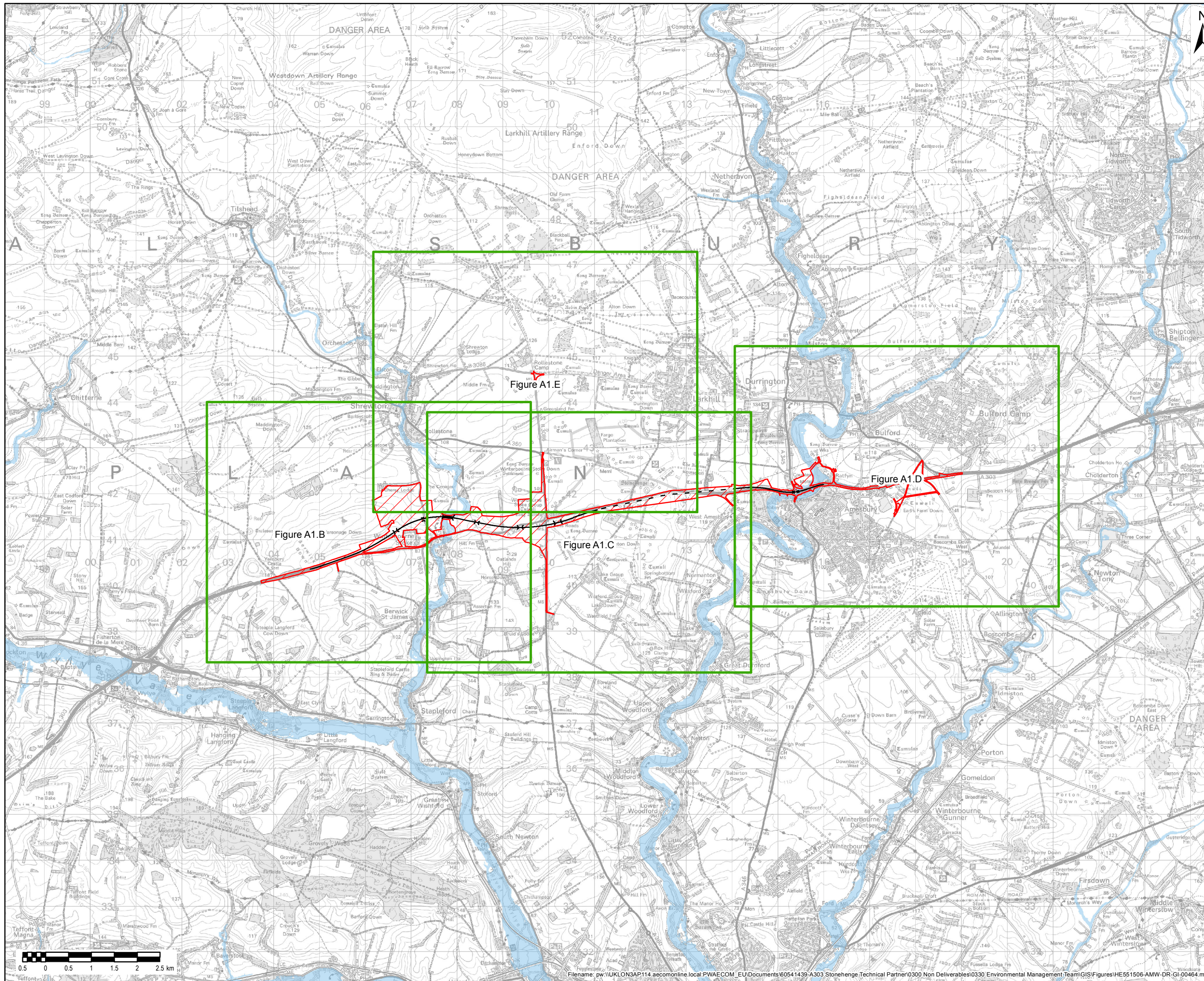
Ref.	Principle	Reporting criteria	Responsible person(s)
General			
P-G01	The detailed design of all material elements, including landscaping, of the Scheme within the WHS to take due consideration of the aims and policies of the WHS Management Plan.	Scheme-wide	
P-G02	The Scheme to provide a high performing dual carriageway to improve safety on the A303 between Amesbury and Berwick Down by giving due consideration to Highways England's Road to Good Design document.	Scheme-wide	
P-G03	The design to consider resilience to climate change by incorporating future climate change allowances and using sustainable drainage solutions.	Scheme-wide	
Signage and lighting			
P-SL01	Minimal lighting and signage in areas bordering the WHS.	Scheme-wide	
P-SL02	Road signs to be located as to avoid adverse impacts on the setting of monuments or interrupting views between Neolithic and Bronze Age monuments, wherever practicably possible.	Scheme-wide	
P-SL03	The use of Road Restraint Systems to be minimised by providing passively safe supports to road signs	Scheme-wide	
P-SL04	Fence heights to generally be 1.2 meters high but must comply with standard minimum for adjacent land use e.g. higher for equestrians.	Scheme-wide	
Tunnel portals, retaining walls and other structures			
P-PWS01	Any new infrastructure (and associated elements) to be designed to be sympathetic with the surrounding landscape.	Scheme-wide	
P-PWS02	All external scheme components to use a common materials palette; applying to colour, surface finish and texture. The colours to be in keeping with the surrounding landscape, and to echo local materials. The design should adopt an earthy tone to create spaces which are warm and natural in appearance. The final details will be developed in consultation with the SDCG and will be subject to onsite trial panels.	Scheme-wide	
P-PWS03	The surface finish of the western cutting retaining walls (within the WHS) to be in keeping with the character of the surrounding landscape, subject to conforming with the requirements of D-NOI5.	WHS	
P-PWS04	The tunnel to be designed to enhance the user experience and become a new point of reference when travelling along the A303.	WHS	
P-PWS05	A viaduct crossing of the River Till, so as to retain the open character of the valley floor.	Scheme-wide	

P-PWS06	The landscape earthworks at the new Longbarrow junction to sympathetically integrate the junction within the existing rolling landform.	Scheme-wide	
P-PWS07	The new flyover above Countess roundabout to make use of space reserved when the junction was originally constructed. The design shall comprise two single-span bridges with earthworks embankments rather than an open viaduct along with adequate space for new planting to soften and screen the flyover, acoustic screen and vehicles. -	Scheme-wide	
P-PWS08	The surface finish to the tunnel service buildings shall be compatible with the adjacent walls.	WHS	
PRoWs			
P-PRoW1	Public Rights of Way to have a bound surface where appropriate to their use. Within the WHS, material finishes to be sympathetic to the setting of the WHS and suitable to accommodate use by, as appropriate, agricultural and land management vehicles, carriages, equestrians, cyclists and pedestrians, including people with impaired mobility, wheelchair users and parents with buggies and children. Appropriately vegetated verges to be provided between the surfaced area and adjacent land boundaries.	Scheme-wide	
P-PRoW2	Timber posts and strained wire fences to be used to separate PRoWs from adjacent private land in accordance with Highway Construction Details in the Manual of Contract Documents for Highway Works (MCHW) and Design Manual for Road and Bridges (DMRB). Where necessary for adjacent land use, appropriate stock-proof netting to be added to strained wire fences.	Scheme-wide	
P-PRoW3	No lighting on any PRoW within the Scheme.	Scheme-wide	
P-PRoW4	No gates on byways open to all traffic. On restricted byways full width gates with Kent Carriage Gaps to be used based on details in BS5709, the Manual of Contract Documents for Highway Works - Highway Construction Details, and in accordance with the Design Manual for Roads and Bridges and the relevant elements of the 'Advice on Gate installation' and 'Advice on Vehicle Barriers' published by the British Horse Society. Gates to be sufficiently wide and appropriately placed to accommodate authorised users as necessary, including agricultural vehicles and other agricultural machinery and appropriate locking measures to be employed to ensure that those entitled to exercise rights of vehicular access over restricted byways would be capable of doing so freely. All gates and barriers, where required as limitations on the free passage of the public along footpaths, bridleways and restricted byways shall comply with the current British Standard 5709; Gaps gates and stiles. Equestrian gates to be provided on bridleways, while on footpaths, pedestrian gates would be installed.	Scheme-wide	
Landscape and earthworks			
P-LE01	Planting strategy to have due consideration to the objectives of the WHS Management Plan, where this does not conflict with ecological or visual mitigation. -	WHS	

P-LE02	New landscaping to reflect and integrate with the original landscape i.e. rolling species rich downland, and not to seek to imitate the monuments within the landscape. To include grading out of the embankments and rounding off the top of cuttings, in order to reflect the existing natural landform.	Scheme-wide	
P-LE03	The detailed landscape design approach to seek to be in keeping with the surrounding landscape and have regard to the setting and visual connectivity of monument groups.	Scheme-wide	
P-LE04	Use of false cuttings (bunds) outside the WHS to aid in the softening of views of vehicles, particularly cars.	Scheme-wide	
P-LE05	Existing highway planting at Countess Junction shall be retained, supplemented by additional tree planting where practicable.	Scheme-wide	
P-LE06	The use of excavated materials to form chalk grassland and landscape features within the Order Limits and minimise the need to transport surplus material to off-site disposal facilities.	Scheme-wide	

5 Annexes

Annex A.1 – Environmental Constraints Plan



- NOTES / LEGEND
- Indicative centreline
 - Proposed tunnel
 - Proposed Scheme boundary
 - Risk of Flooding from Rivers and Sea

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Purpose of issue
DCO APPLICATION

Client
Highways England

Working on behalf of

Project Title
A303 AMESBURY TO BERWICK DOWN

Drawing Title
ANNEX A.1
FIGURE A.1A
ENVIRONMENTAL CONSTRAINTS PLAN

Designed	Drawn	Checked	Approved	Date
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Internal Project No. 60541200

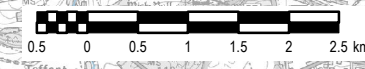
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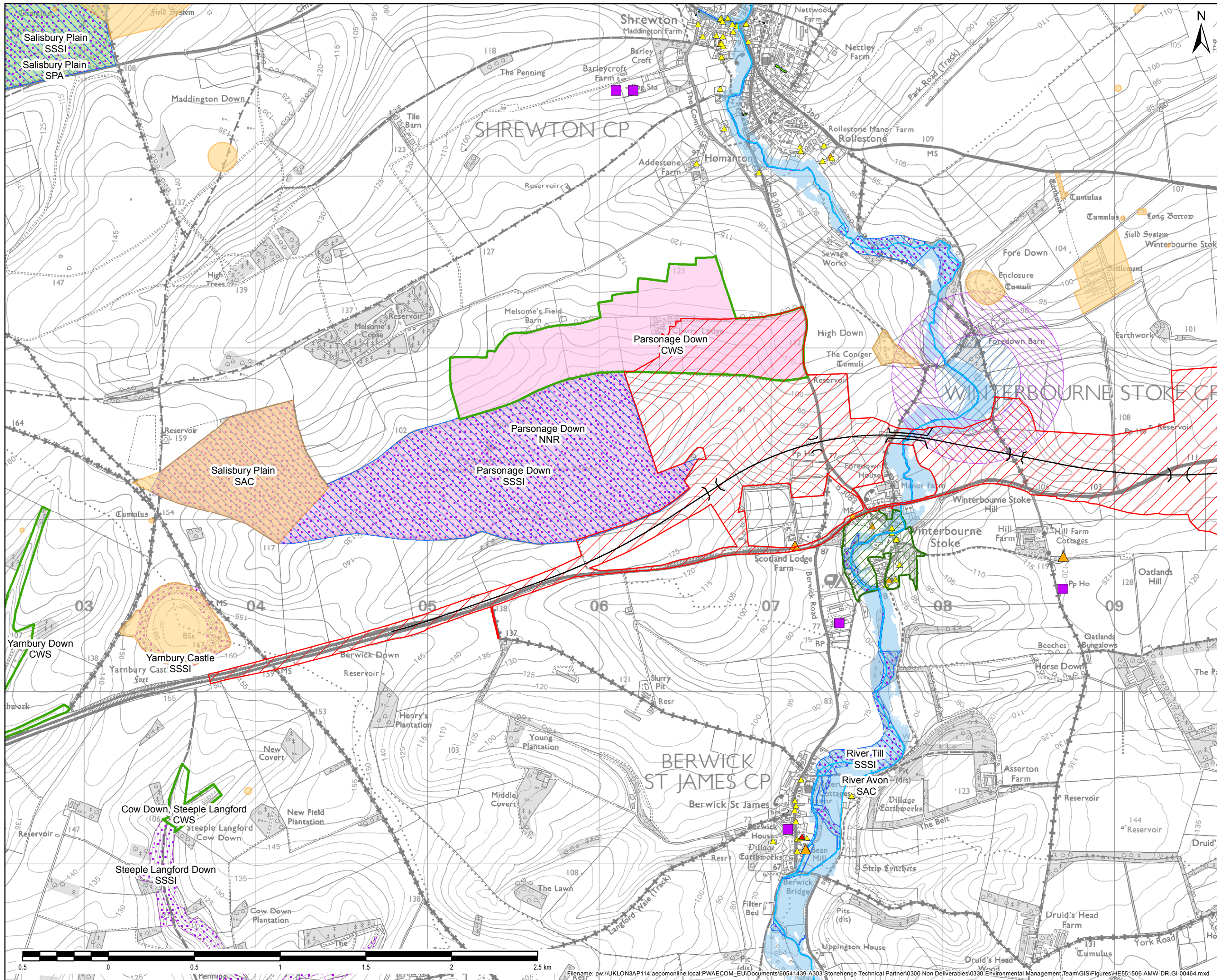
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- NOTES / LEGEND
- Indicative centreline
 - - - Proposed tunnel
 - ▭ Proposed Scheme boundary
 - ▭ Tree Preservation Order (TPO)
 - ▲ Private Water Supplies provided by Wiltshire Council
 - Licensed Groundwater Abstraction provided by Environment Agency
 - WFD River Waterbody
 - ▭ Conservation Area
 - ▲ Grade I Listed Building
 - ▲ Grade II* Listed Building
 - ▲ Grade II Listed Building
 - ▭ Scheduled Monument
 - ▭ County Wildlife Site (CWS)
 - ▭ Special Area of Conservation (SAC)
 - ▭ Site of Special Scientific Interest (SSSI)
 - ▭ National Nature Reserve (NNR)
 - ▭ Special Protection Area (SPA)
 - ▭ GCN Pond - 250m Buffer
 - ▭ GCN Pond - 500m Buffer
 - ▭ Risk of Flooding from Rivers and Sea

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ANNEX A.1
FIGURE A.1B
ENVIRONMENTAL CONSTRAINTS PLAN

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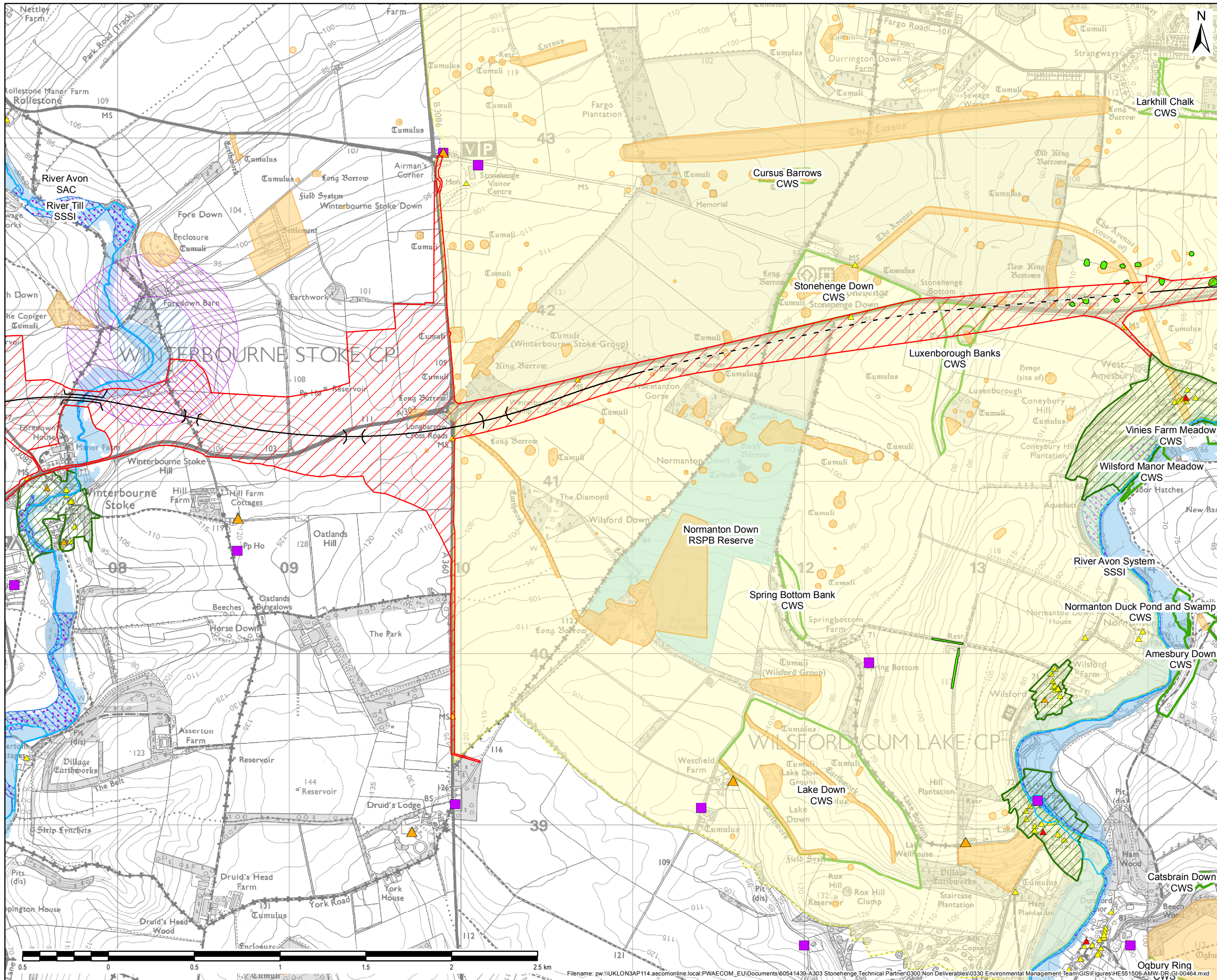
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- NOTES / LEGEND
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 - County Wildlife Site (CWS)
 - Special Area of Conservation (SAC)
 - Site of Special Scientific Interest (SSSI)
 - RSPB Reserve
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 - GCN Pond - 500m Buffer
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ANNEX A.1
FIGURE A.1C
ENVIRONMENTAL CONSTRAINTS PLAN

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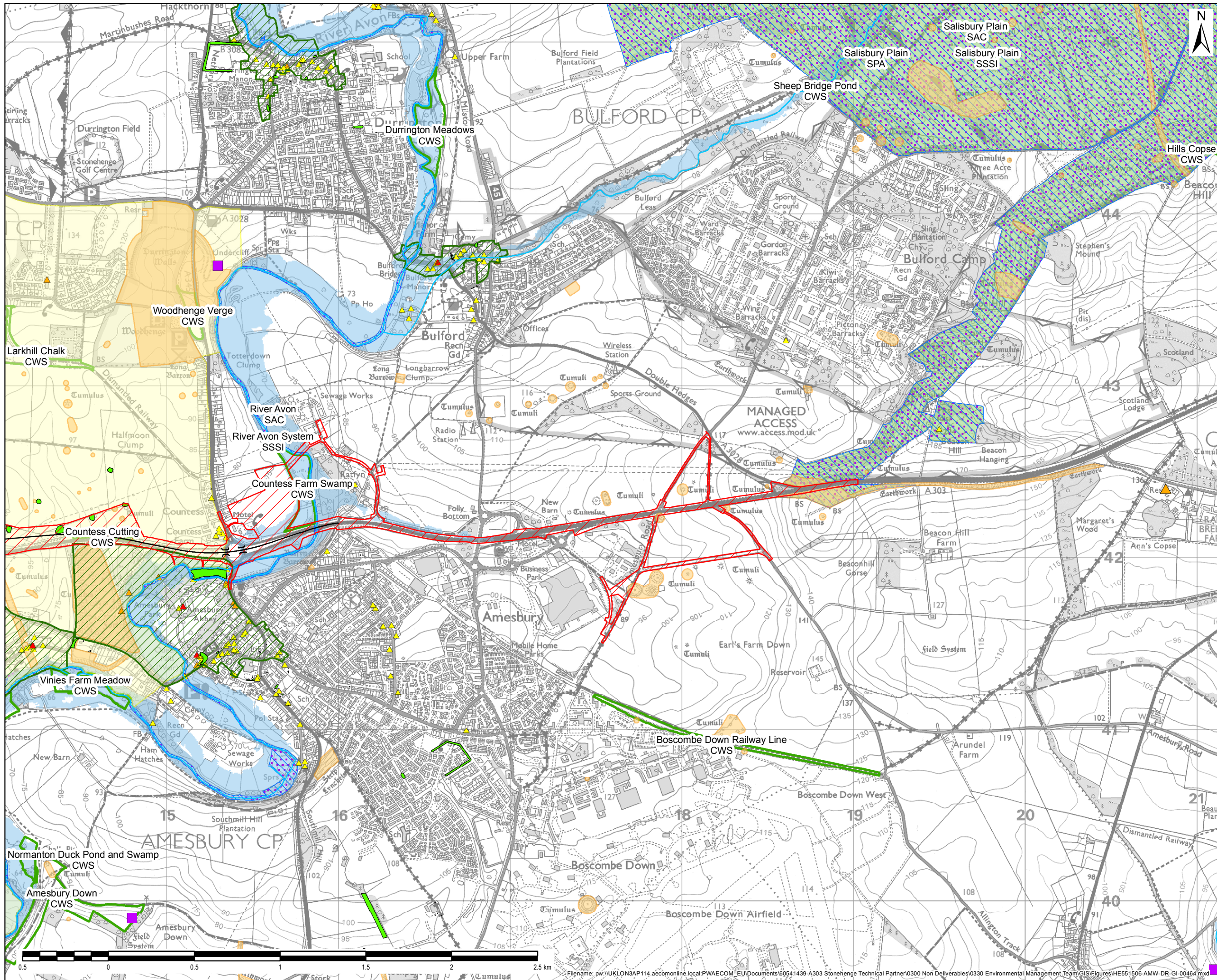
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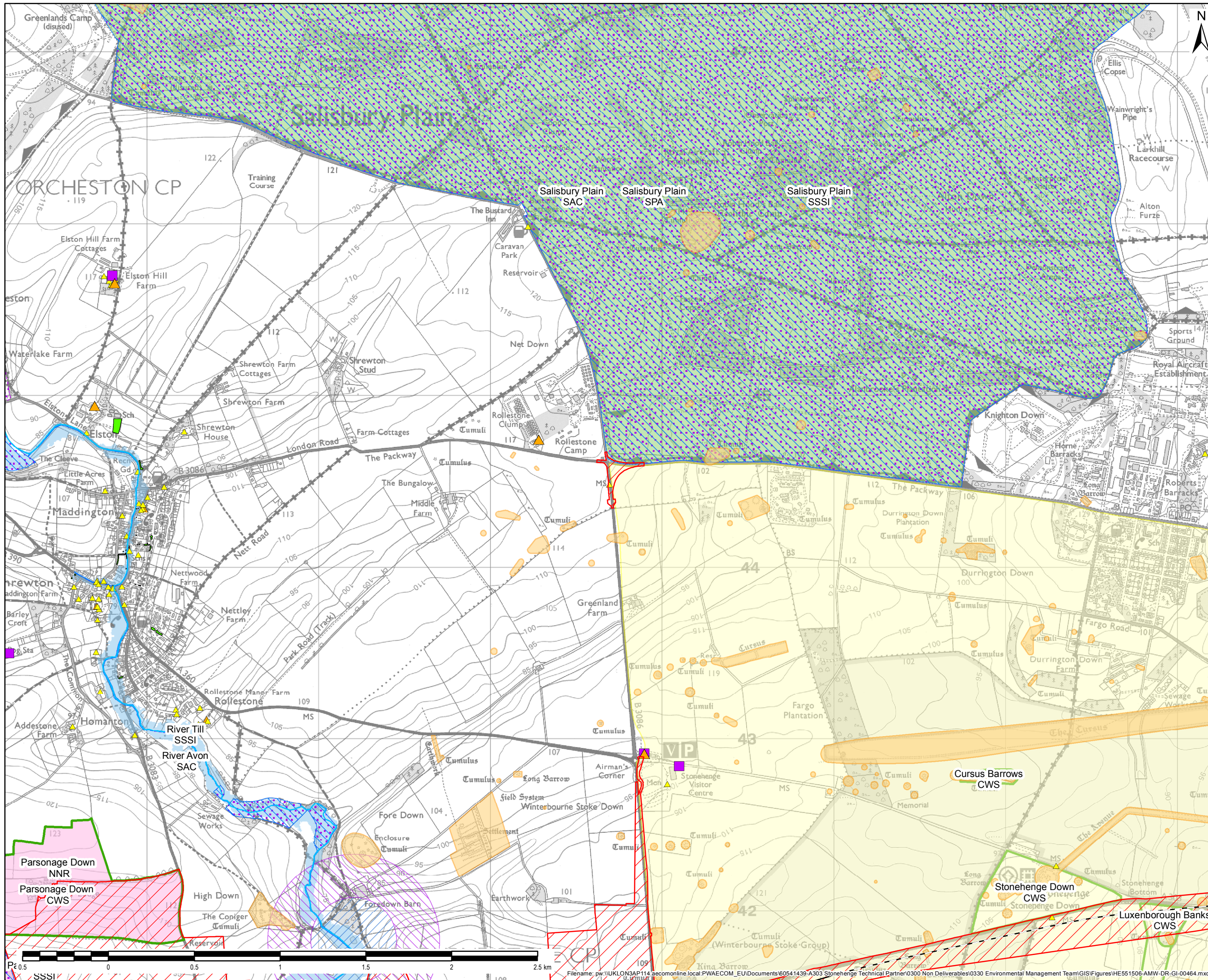
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ANNEX A.1 FIGURE A.1D ENVIRONMENTAL CONSTRAINTS PLAN					
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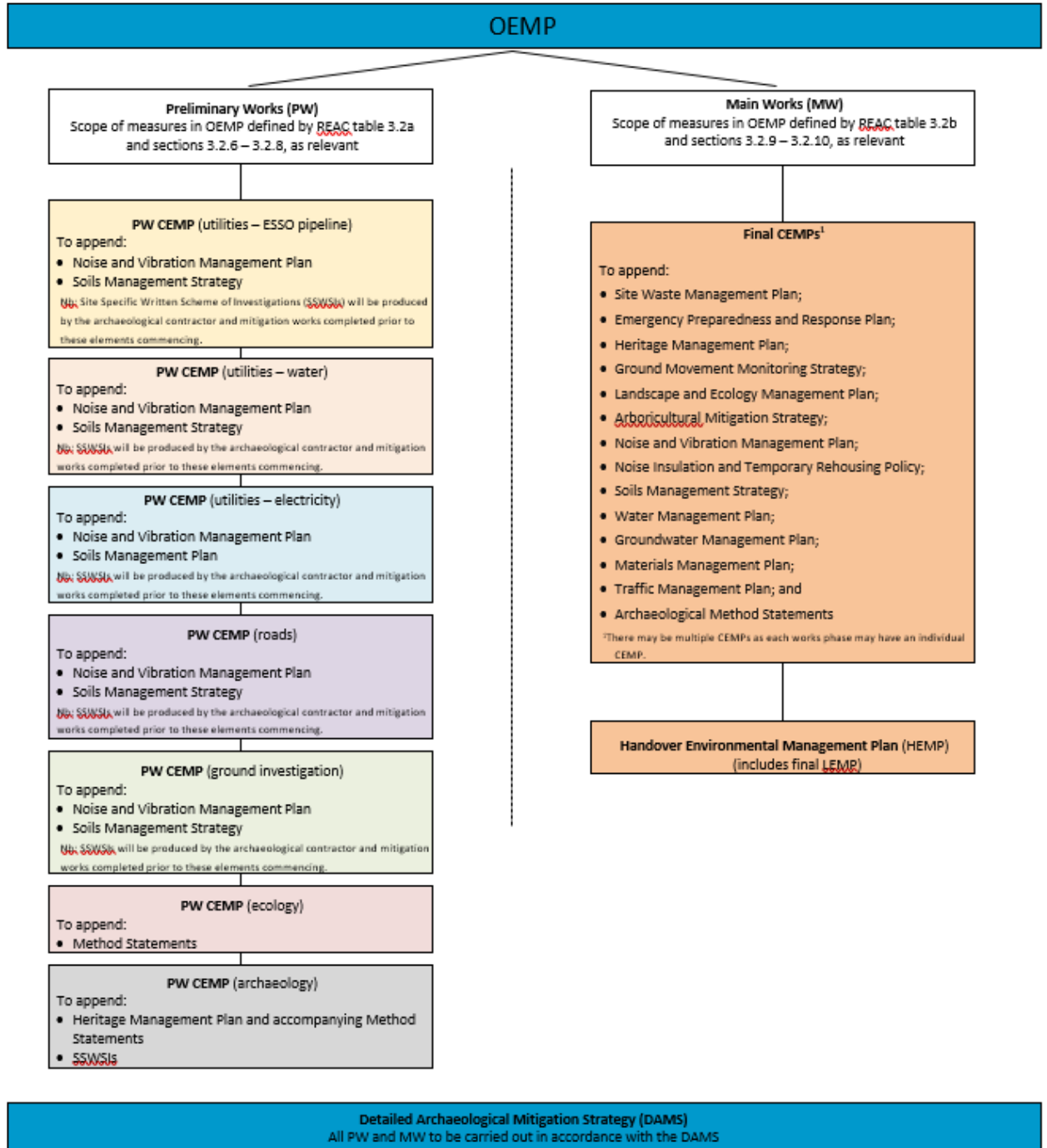


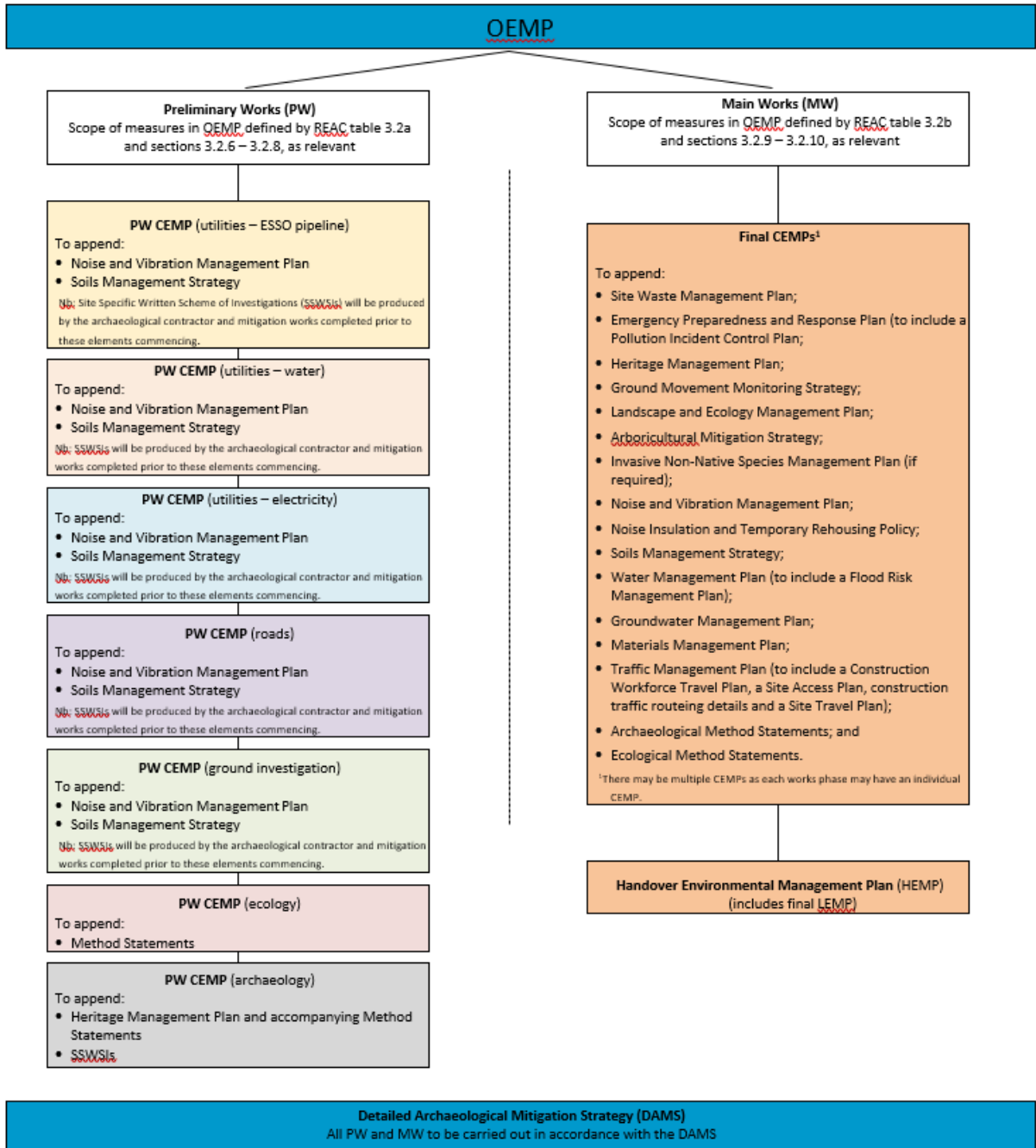
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Annex A.2 – visual aid showing the relationship between the CEMPs and other management plans





Annex A.3 – Outline Soils Management Strategy

Table of contents

Chapter		Pages
1	Introduction	1
2	Soil Resource Plan	3
3	Soil Handling Strategy	5

1 Introduction

- 1.1.1 This document sets out the Outline Soils Management Strategy (Outline SMS) that will be developed by the preliminary and main works contractor(s) (hereafter referred to as the Contractor) and applied to all soil resources that are disturbed either permanently or temporarily for the A303 Amesbury to Berwick Down Scheme (the Scheme).
- 1.1.2 As stated within items PW-GEO3 and MW-GEO3 within Tables 3.2a and 3.2b of the OEMP respectively, the Contractor shall follow the guidance in the Construction Code of Practice for the Sustainable Use of Soils on Construction Sites⁸ when handling agricultural soils and, in particular, the land to be reprofiled for use as permanent chalk grassland. These OEMP items also state that the preliminary and main works contractor(s) shall produce a detailed SMS based on the Outline SMS, and that the detailed SMS will identify:
- a) the nature and types of soil that will be affected; and
 - b) the methods that will be employed for stripping soil and the restoration of agricultural land.
- 1.1.3 Item MW-GEO7 within Table 3.2b of the OEMP states that, as part of the SMS, the main works contractor shall develop a:
- a) Soils Handling Strategy, with reference to BS3882: 2015 Specification for Topsoil⁹ ~~and~~ the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction ~~Site~~⁸~~Error! Bookmark not defined.~~ ~~and Historic England's Preserving Archaeological Remains guidance~~¹⁰ This shall incorporate the soils handling measures outlined within the Detailed Archaeological Mitigation Strategy (DAMS), identify locations where archaeological in-situ preservation is required and consider areas to be returned to agricultural use; and
 - b) Soil Resource Plan, which will confirm the soil types, the most appropriate re-use for the different types of soils and proposed methods for handling, storing and replacing soils on-site.
- 1.1.4 Item MW-GEO7 sets out a number of other commitments in relation to soil, which should be read alongside this outline SMS.

⁸ Defra (2009). Construction Code of Practice for the Sustainable Use of Soils on Construction Sites. Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/716510/pb13298-code-of-practice-090910.pdf

⁹ British Standards Institution (2015). BS 3882:2015 Specification for Topsoil

¹⁰ Historic England (2016) Preserving Archaeological Remains. Available at: <https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/heag100a-preserving-archaeological-remains/>

- 1.1.5 This Outline SMS sets out the requirements of the detailed Soil Resource Plan and Soils Handling Strategy, that will together form part of the SMS to be prepared by the Contractor, depending on the stage of the Scheme at which the soil resource in a land parcel will be disturbed.

2 Soil Resource Plan

- 2.1.1 The Contractor shall prepare a detailed Soil Resource Plan for all land parcels within the Scheme where the soil resource will be disturbed for either temporary or permanent works.
- 2.1.2 The purpose of the Soil Resource Plan is to:
- a) accurately record the existing soil resources within each land parcel that is to be used temporarily in the construction of the Scheme. This will then be used to inform Preconstruction Soil Statements (refer to items PW-COM2 and MW-COM4 of the OEMP) to provide a specification for its restoration following the construction period; and
 - b) identify the volume of each type of soil that will be available for re-use in the detailed design of the Scheme from land parcels that are affected by the works and that will not be returned to agricultural use.
- 2.1.3 Within each land parcel, the Soil Resource Plan shall identify:
- a) the texture of each soil horizon present (refer to section 2.1.4);
 - b) the depth of each soil horizon;
 - c) the colour of each soil horizon by reference to the Munsell Soil Color Charts¹¹;
 - d) the stone content of each soil horizon;
 - e) the pH, organic matter and major nutrients of the topsoil horizon;
 - f) the pH, organic matter and major nutrients of the upper subsoil horizon; and
 - g) the Agricultural Land Classification (ALC) grade.
- 2.1.4 For the purposes of (a) 'Soil texture' describes how the mineral element of soil comprises a mixture of mineral particles of different sizes, and a different texture class can be ascribed according to the proportions of sand, silt and clay. According to the BSI specifications for topsoil⁹ and subsoil¹², the size ranges of these particles are:
- a) clay (<0.002mm);
 - b) silt (0.002mm to 0.06mm);
 - c) sand (0.06mm to 2.00mm) comprising:

¹¹ Munsell Color (2009). Munsell Soil Color Charts

¹² British Standards Institution: BS 8601:2013 Specification for subsoil and requirements for use

- i.fine sand (0.06mm to 0.2mm);
 - ii.medium sand (0.2mm to 0.6mm); and
 - iii.coarse sand (0.6mm to 2.0mm).
- 2.1.5 The Contractor shall be responsible for ensuring adequate data is available for the Soil Resource Plan, including, if necessary, collecting data on organic matter content and major nutrients.
- 2.1.6 Where required, the data on the physical attributes (texture, depth and stone content) shall be collected at an observation density of one observation per hectare (ha). The data on organic matter content and major nutrients shall be collected at a density of one sample per 3ha or, if the land parcel is smaller than 3ha, one sample per land parcel.
- 2.1.7 As stated within Table 2.1. of the OEMP. the Agricultural Liaison Officer (ALO) will coordinate the provision of the detailed pre-construction condition soil surveys with agricultural land owners and occupiers.
- 2.1.8 Once complete, the Contractor shall use the information contained within the Soil Resource Plan to produce Preconstruction Soils Statements for areas of agricultural land within individual land holdings that will be temporarily occupied during the construction of the Scheme (refer to item MW-COM4 within the OEMP).

3 Soil Handling Strategy

- 3.1.1 As part of the SMS, the Contractor shall prepare a Soil Handling Strategy for each land parcel where there is the potential for the disturbance of soil resources.
- 3.1.2 Soils that are disturbed during the construction of the Scheme are associated with:
- a) areas within the permanent Scheme footprint;
 - b) archaeological investigations;
 - c) the installation of underground apparatus;
 - d) areas to store landscape fill and excavated materials;
 - e) site compounds and working areas;
 - f) temporary haul roads;
 - g) temporary roads; and
 - h) topsoil stockpiles.
- 3.1.3 For land parcels affected by the Works, the Soil Handling Strategy will set out detailed Method Statements for protecting the soil resource in each land parcel during the construction period, ensuring compliance with the requirements of the OEMP and the DAMS in respect of the protection of archaeological assets (including necessary approvals). This will be determined on a case-by-case basis and will be informed by:
- a) the nature of and risk to the archaeological assets (below plough depths) from loads imposed by construction activities; and the risks to the archaeological assets from stripping and storing topsoils during the construction period;
 - b) the resilience of the existing topsoil and upper subsoil resources to the loads to be imposed by construction activities, which will depend on the depth, texture and structure of each soil horizon;
 - c) the ability to restore land to its current condition following the removal of construction platforms and works.
- 3.1.4 The detailed Method Statements shall identify:
- a) areas within each land parcel in which archaeological in-situ preservation is required as identified in the relevant SSWSI;
 - b) the construction methods and platforms to be used in relation to soil to achieve in-situ preservation and prevent deformation of the topsoil and subsoil horizons (where required);

- c) the anticipated loads on the in-situ topsoil from construction activities;
- d) the methods to be used to return agricultural land that is subject to archaeological in-situ preservation to good agricultural condition following the removal of the construction platform (where required)
- e) the area in each land parcel in which the topsoil (and upper subsoil if required or present) will be stripped and placed in store during the construction period;
- f) the working methods and plant to be used to strip topsoils (and upper subsoils if required and/or present) and place them in temporary stockpiles (refer to section 3.1.6);
- g) the methods to be used to construct temporary soil stockpiles (refer to section 3.1.7);
- h) the locations of temporary soil stockpiles;
- i) the methods to be used to maintain temporary stockpiles according to the length of time the soil is in storage (refer to section 3.1.7);
- j) the methods to be used to replace soils from the temporary stockpiles within each land parcel (refer to section 3.1.8).
- k) how topsoil excavated from inside the World Heritage Site (WHS) will be stockpiled separately and re-used within the WHS as close as practicable to the area from which it was derived (where relevant);
- l) require the origin and placement of topsoil that could contain archaeological artefacts to be mapped and for this information to be lodged with the Wiltshire and Swindon Historic Environment Record (WSHER); and
- m) how the soil handling process will incorporate the requirements of the DAMS.

3.1.5 In all cases the Contractor shall have regard to and comply with good practice guidance on stripping, handling and restoring soils. In cases where the construction platforms are constructed on in-situ topsoils, the preliminary and main works contractors shall agree the proposed methods for in-situ preservation and remediation of the soil profile with Natural England and Historic England.

3.1.6 Good practice guidance for stripping and handling topsoil and subsoil is contained in:

- a) BS 3882:2015⁹, Annex A, A.1;

- b) BS 8601: ~~2013~~^{Error! Bookmark not defined.}, 2013¹³, Clause 6, 6.1;
- c) Defra Construction Code of Practice for the Sustainable Use of Soils¹, sections 5.2 and 5.3
- d) MAFF Good Practice Guide for Handling Soils¹⁴, Sheet 1.

3.1.7 Good practice guidance on building topsoil and subsoil stockpiles, and maintaining soils in storage is contained in:

- a) BS 3882:2015, Annex A, A.2;
- b) BS 8601: 2013, Clause 6, 6.2
- c) Defra Construction Code of Practice for the Sustainable Use of Soils, section 5.4
- d) MAFF Good Practice Guide, Sheets 2 and 14.
- e) Good practice guidance on excavating soils from stockpiles is contained in the MAFF Good Practice Guide, Sheet 3.

3.1.8 Good practice guidance on replacing topsoil and subsoil, including guidance on decompaction, is contained in:

- a) BS 3882:2015, Annex A, A.3 and A.4;
- b) BS 8601: 2013, Clause 6, 6.3, 6.4 and 6.5;
- c) Defra Construction Code of Practice for the Sustainable Use of Soils, section 6.1; and
- d) MAFF Good Practice Guide, Sheets 4, 15, 18 and 19.

3.1.9 The scheme-wide principle is that topsoils and subsoils that are permanently displaced for the construction of the Scheme should be re-used within the Scheme in landscape mitigation areas, highway verges and batters as close to their source as feasible, as set out in the detailed Method Statement (refer to Section 3.1.4). The topsoils and subsoils within the permanent works are of good quality and there is no requirement to import any topsoils or subsoils to the Scheme for these uses.

3.1.10 Where land is to be used temporarily and returned to the landowner, the ALO will, further to the provisions of items MW-COM4 and MW-COM8 of the OEMP:

¹³ [British Standards Institution: BS 8601:2013 Specification for subsoil and requirements for use](#)

¹⁴ MAFF (2000). Good practice guide for handling soils. Available at: <https://webarchive.nationalarchives.gov.uk/20090306103114/http://www.defra.gov.uk/farm/environment/land-use/soilguid/index.htm>

- a) liaise with the landowner on the working methods and the detail for restoration of each specific land parcel;
- b) undertake site inspections during construction to monitor working practices and compliance of the contractors with their obligations to landowners and occupiers under the OEMP;
- c) liaise with the landowner/occupier on the reinstatement measures following completion of the works;
- d) undertake further inspections of restored agricultural land with the landowner/occupier ~~t~~and Highways England's soils experts (and valuer, if required) to assess the progress of the restoration;
- e) coordinate the appropriate remedial actions or compensation agreed within the parameters of the compensation code and/or any previous agreements made at the time of acceptance of the initial restoration works and handover to the landowner/occupier.

Annex A.4 – Illustrated Examples of Key Design Elements

A303 Amesbury to Berwick Down

TR010025

8.47 Outline Environmental Management Plan Annex A.4 - Illustrated Examples of Key Design Elements

APFP Regulation 5(2)(q)

Planning Act 2008

The Infrastructure Planning (Examination Procedure) Rules 2010

August 2019



Infrastructure Planning

Planning Act 2008

The Infrastructure Planning (Examination Procedure)

Rules 2010

A303 Amesbury to Berwick Down

Development Consent Order 20[**]

Outline Environmental Management Plan Annex A.4 - Illustrated Examples of Key Design Elements

Regulation Number:	Regulation 5(2)(q)
Planning Inspectorate Scheme Reference	TR010025
Application Document Reference	8.47
Author:	A303 Amesbury to Berwick Down Project Team, Highways England

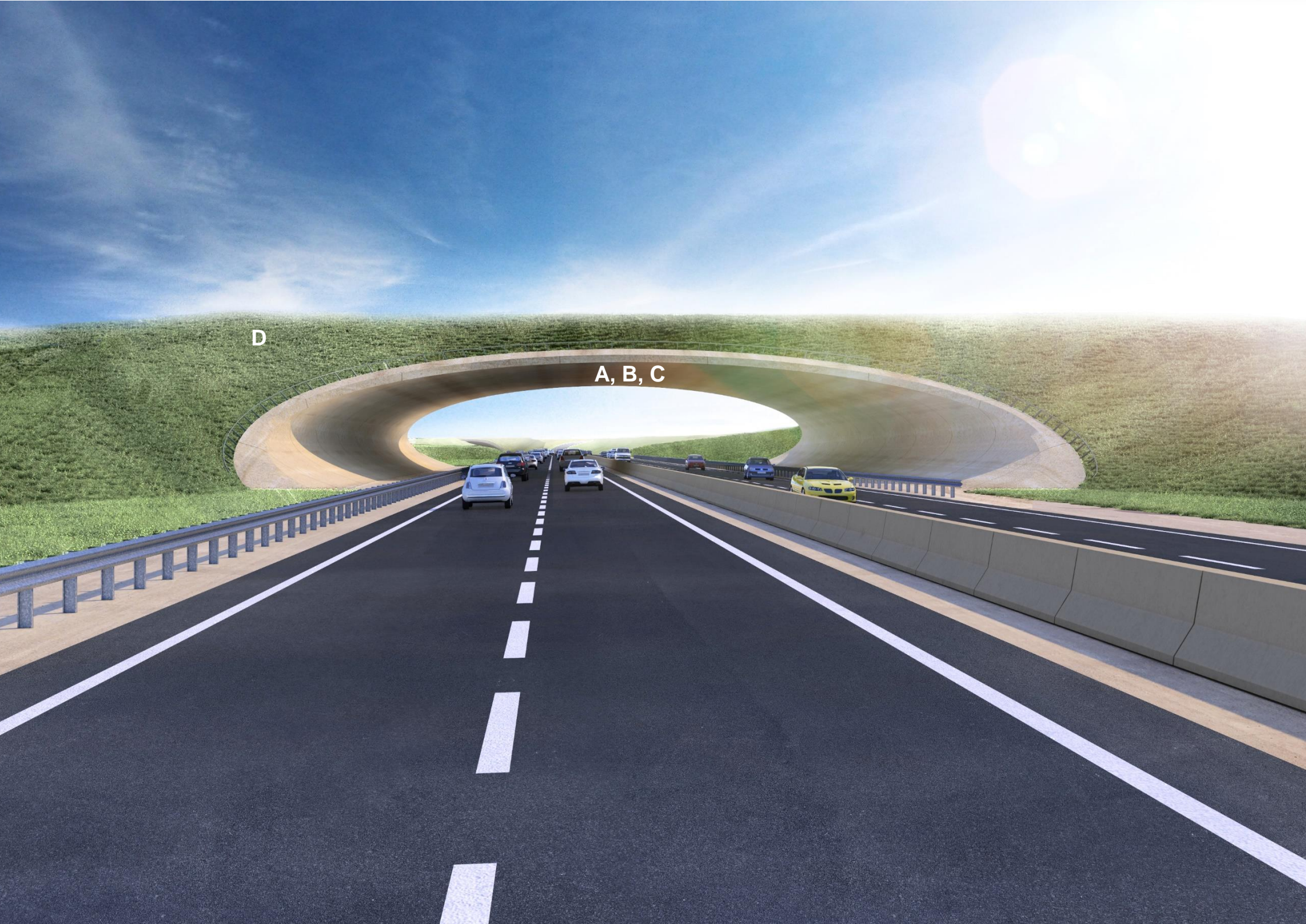
Version	Date	Status of Version
Rev 0	09/08/2019	Deadline 7 Issue

1 Introduction

This document presents illustrations which show how key elements of the Scheme could look, when designed in compliance with the Vision, Design Principles and Commitments presented in the OEMP. It should be noted that the illustrations do not show all potential aspects of the design at every location, but focus primarily on the principal structural components in order to illustrate how those are controlled by the Vision, Design Principles and Design Commitments.

Each illustration is accompanied by a summary of the key components of the Vision, Design Principles and Design Commitments relevant to that element. The Vision and Design Principles have driven the development of the DCO Design and will continue to inform the detailed design pursuant to the Vision. The Design Principles are discussed in Chapter 4 and presented in Table 4.1 of the OEMP. Design Commitments represent specific items that have already been agreed with relevant consultees as appropriate and are committed components of the Scheme and its construction. The Design Commitments are included in Table 3.2b of the OEMP with a D- precursor (e.g. D-CH1). The text accompanying the illustrations is taken directly from the OEMP as follows, and includes each item's respective reference for ease of identification:

- Vision - from Section 4.2 of the OEMP;
- Design Principles - from Table 4.1 of the OEMP;
- Design Commitments - from Table 3.2(b) of the OEMP



D

A, B, C

Green Bridges 1 and 2

(Illustration shows Green Bridge 2)

Vision

4.2.6 (b) Integration and Connectivity.

The detailed design should show careful and sensitive alignment of the proposed road in relation to cultural and ecological designations, landform, vegetation and features, so that the Scheme reflects the beauty of the natural, built and historic environment through which it passes. The earthworks design should reflect the rolling landform through its gradients and profiling, to reduce the visibility of the road. New structures should respond to the landform to maximise their concealment. The landscape and ecological design should maintain connectivity for existing habitats, re-establish landcover whilst giving due consideration to the aims and objectives of the WHS Management Plan.

4.2.6 (c) High quality and imaginative design.

The engineering and architectural design of the Scheme should create a clear design rationale and its context using a co-ordinated palette of materials and finishes, with imaginative design features, e.g. green bridges.

4.2.6 (d) Unity and elegance.

All structures and features should be considered holistically, to deliver a unified approach sympathetic to their scale, form and mass and opportunities that minimises their visual impact. This should include all highway furniture and hard landscape features. Where highways furniture and structures are visible, they should be elegant and sympathetic to their setting for both the road user and those within the wider landscape. Road signage should be designed for minimal impact, ensuring no unnecessary clutter, while ensuring the route is safe.

4.2.9 (c) Increase access across the landscape.

The Scheme should enhance recreational opportunities across the western section and between the WHS via new routes

Key Principles

- A. P-PWS01 Any new infrastructure (and associated elements) to be designed to be sympathetic with the surrounding landscape.
- B. P-PWS02 All external scheme components to use a common materials palette; applying to colour, surface finish and texture. The colours to be in keeping with the surrounding landscape, and to echo local materials. The design should adopt an earthy tone to create spaces which are warm and natural in appearance.

Key Commitments

- C. D-BIO3 Green bridges shall be designed and delivered having regard to the guidance in the report: Natural England (2015), Commissioned Report NECR181, Green Bridges, Literature Review.
- D. MW- LAN5 Earthworks shall be rounded at changes in grade and direction to provide a natural appearance and reflect the surrounding topography.

G, H

F

C, D, E

A, B

I



Green Bridge 4

(Illustration shows looking east)

Vision

4.2.6 (a) Respecting and Responding to the Historic Landscape.

The detailed design should take full account of the character of the unique historic landscape in which it sits. This includes the OUV of the WHS, the inter-visibility between monuments, heritage assets and the relationship between the WHS, its immediate setting and wider landscape. The Scheme should show due consideration of the objectives of the WHS Management Plan, to ensure that visibility of the Scheme is minimised, the design is elegant and impacts positively on the user experience within the WHS.

4.2.6 (b) Integration and Connectivity.

The detailed design should show careful and sensitive alignment of the proposed road in relation to cultural and ecological designations, landform, vegetation and features, so that the Scheme reflects the beauty of the natural, built and historic environment through which it passes. The earthworks design should reflect the rolling landform through its gradients and profiling, to reduce the visibility of the road. New structures should respond to the landform to maximise their concealment. The landscape and ecological design should maintain connectivity for existing habitats, re-establish landcover whilst giving due consideration to the aims and objectives of the WHS Management Plan.

4.2.6 (c) High quality and imaginative design.

the engineering and architectural design of the Scheme should create a clear design rationale and its context using a co-ordinated palette of materials and finishes, with imaginative design features, e.g. green bridges.

4.2.10 (a) Sustain the OUV of the WHS.

The Scheme should maximise the concealment of structures and features outside of the tunnel from the wider landscape through their siting in the landscape in relation to existing ground levels, choice of materials and colour tone of the finishes. New landscaping and earthworks should not seek to imitate the monuments within the WHS landscape. The dark skies environment should be improved by avoiding road lighting wherever practicable and by the Scheme alignment having regard to Solstice alignments.

4.2.10 (b) Due consideration of the objectives and policies of the WHS Management Plan.

This should include delivering non-motorised users (NMU) opportunities, the re-use of the existing A303 and connection to existing byways. The Scheme should acknowledge the potential for future access within the WHS, e.g. the reconnection of the Avenue.

Key Principles

- A. P-PWS02 All external scheme components to use a common materials palette; applying to colour, surface finish and texture. The colours to be in keeping with the surrounding landscape, and to echo local materials. The design should adopt an earthy tone to create spaces which are warm and natural in appearance.
- B. P-PWS03 The surface finish of the western cutting retaining walls (within the WHS) to be in keeping with the character of the surrounding landscape.

Key Commitments

- C. D-CH4 Green Bridge Four shall be 145m – 149.9m wide. The restricted byway shall be constructed to be suitable for use by any vehicle or tractor trailer combinations with a gross vehicle weight of a maximum of 44 tonnes, in accordance with Road Vehicle (Construction and Use) Regulations 1986 (as amended).
- D. D-CH10 Lighting under Green Bridge Four will only occur between dawn and dusk, be dimmer controlled, and will be designed to minimise light spill outside of the bridge footprint
- E. D-CH11 No road lighting of the Scheme during operation except under Green Bridge Four and Countess Roundabout and within the tunnel.
- F. D-CH23 On Green Bridge Four, the finished ground level shall replicate the existing ground levels, subject to the limits of deviation.
- G. D-CH24 Boundary fencing and gates in the WHS shall be visually recessive and have a low reflectivity finish.
- H. D-CH25 The top of new highway boundary fencing within the western cutting shall be no higher than the ground level at the top of the cutting alongside which the fencing runs.
- I. D-NOI1 The Contractor shall provide a thin surfacing solution on the mainline of the new A303 and its associated slip roads



C, D, J

B

H

A, E

F, G, I

Tunnel West Portal Approach

Vision

4.2.6 (a) Respecting and Responding to the Historic Landscape.

The detailed design should take full account of the character of the unique historic landscape in which it sits. This includes the OUV of the WHS, the inter-visibility between monuments, heritage assets and the relationship between the WHS, its immediate setting and wider landscape. The Scheme should show due consideration of the objectives of the WHS Management Plan, to ensure that visibility of the Scheme is minimised, the design is elegant and impacts positively on the user experience within the WHS.

4.2.6 (b) Integration and Connectivity.

The detailed design should show careful and sensitive alignment of the proposed road in relation to cultural and ecological designations, landform, vegetation and features, so that the Scheme reflects the beauty of the natural, built and historic environment through which it passes. The earthworks design should reflect the rolling landform through its gradients and profiling, to reduce the visibility of the road. New structures should respond to the landform to maximise their concealment. The landscape and ecological design should maintain connectivity for existing habitats, re-establish landcover whilst giving due consideration to the aims and objectives of the WHS Management Plan.

4.2.6 (c) High quality and imaginative design.

The engineering and architectural design of the Scheme should create a clear design rationale and its context using a co-ordinated palette of materials and finishes, with imaginative design features, e.g. green bridges.

4.2.6 (d) Unity and elegance.

All structures and features should be considered holistically, to deliver a unified approach sympathetic to their scale, form and mass and opportunities that minimises their visual impact. This should include all highway furniture and hard landscape features. Where highways furniture and structures are visible, they should be elegant and sympathetic to their setting for both the road user and those within the wider landscape. Road signage should be designed for minimal impact, ensuring no unnecessary clutter, while ensuring the route is safe.

4.2.10 (a) Sustain the OUV of the WHS.

The Scheme should maximise the concealment of structures and features outside of the tunnel from the wider landscape through their siting in the landscape in relation to existing ground levels, choice of materials and colour tone of the finishes. New landscaping and earthworks should not seek to imitate the monuments within the WHS landscape. The dark skies environment should be improved by avoiding road lighting wherever practicable and by the Scheme alignment having regard to Solstice alignments.

4.2.10 (b) Due consideration of the objectives and policies of the WHS Management Plan.

This should include delivering non-motorised users (NMU) opportunities, the re-use of the existing A303 and connection to existing byways. The Scheme should acknowledge the potential for future access within the WHS, e.g. the reconnection of the Avenue.

4.2.10 (c) Deliver a high quality user experience.

The Scheme design should include architectural detailing and a choice of materials to enhance the user experience and become a new point of reference while travelling along the A303, whilst being safe and easy to navigate.

Key Principles

- A. P-PWS04 The tunnel to be designed to enhance the user experience and become a new point of reference when travelling along the A303.
- B. P-PWS02 All external scheme components to use a common materials palette; applying to colour, surface finish and texture. The colours to be in keeping with the surrounding landscape, and to echo local materials. The design should adopt an earthy tone to create spaces which are warm and natural in appearance. The final details will be developed in consultation with the SDCG and will be subject to onsite trial panels.

Key Commitments

- C. D-CH5 The new A303 within the WHS western approach shall be in cutting to a minimum 7m depth with retaining walls. The front face of the retaining walls shall have a backwards incline from vertical of no shallower than 1 in 10.
- D. D-CH5 Approximately 2.5m of the top of each side of the cutting shall be formed of grassed slopes at approximately 1 in 2
- E. D-CH9 Tunnel portal lighting will be designed to minimise light spill outside of the portals' footprint
- F. D-CH13 No tunnel ventilation shafts within the WHS
- G. D-CH16. The opening height of the portal entrances to the tunnel shall be no more than that required to satisfy the requirements of Design Standards TD 27 (DMRB 6.1). and BD 78 (DMRB 2.9).
- H. D-CH8 At the western end of the Scheme within the WHS no signs shall be set higher than the existing ground level on the lower of the adjacent sides of the cutting and the signs shall not be lit.
- I. D-CH28 There shall be no permanent raised earthworks within the WHS other than that required for the construction of the Countess Flyover.
- J. D-CH21 Looking from above, the tops of the cutting retaining walls shall be set parallel to the adjacent carriageway alignment.



B, C, D, E

A

F

G

Tunnel West Portal

Vision

4.2.6 (a) Respecting and Responding to the Historic Landscape.

The detailed design should take full account of the character of the unique historic landscape in which it sits. This includes the OUV of the WHS, the inter-visibility between monuments, heritage assets and the relationship between the WHS, its immediate setting and wider landscape. The Scheme should show due consideration of the objectives of the WHS Management Plan, to ensure that visibility of the Scheme is minimised, the design is elegant and impacts positively on the user experience within the WHS.

4.2.6 (b) Integration and Connectivity.

The detailed design should show careful and sensitive alignment of the proposed road in relation to cultural and ecological designations, landform, vegetation and features, so that the Scheme reflects the beauty of the natural, built and historic environment through which it passes. The earthworks design should reflect the rolling landform through its gradients and profiling, to reduce the visibility of the road. New structures should respond to the landform to maximise their concealment. The landscape and ecological design should maintain connectivity for existing habitats, re-establish landcover whilst giving due consideration to the aims and objectives of the WHS Management Plan.

4.2.6 (c) High quality and imaginative design.

the engineering and architectural design of the Scheme should create a clear design rationale and its context using a co-ordinated palette of materials and finishes, with imaginative design features, e.g. green bridges.

4.2.6 (d) Unity and elegance.

All structures and features should be considered holistically, to deliver a unified approach sympathetic to their scale, form and mass and opportunities that minimises their visual impact. This should include all highway furniture and hard landscape features. Where highways furniture and structures are visible, they should be elegant and sympathetic to their setting for both the road user and those within the wider landscape. Road signage should be designed for minimal impact, ensuring no unnecessary clutter, while ensuring the route is safe.

4.2.6 (e) User experience and safety.

The Scheme should improve the accessibility of the landscape to local communities, visitors and tourists through new recreational routes and crossings of the proposed road. The Scheme should aim to provide enjoyment and excitement for the road user, using materials and design features which engage with their sense of place and history of the landscape, whilst ensuring the road is easy to navigate through safe and secure infrastructure. The tunnel should enhance the user experience and become a new point of reference when travelling along the A303.

4.2.10 (a) Sustain the OUV of the WHS.

The Scheme should maximise the concealment of structures and features outside of the tunnel from the wider landscape through their siting in the landscape in relation to existing ground levels, choice of materials and colour tone of the finishes. New landscaping and earthworks should not seek to imitate the monuments within the WHS landscape. The dark skies environment should be improved by avoiding road lighting wherever practicable and by the Scheme alignment having regard to Solstice alignments.

4.2.10 (b) Due consideration of the objectives and policies of the WHS Management Plan.

This should include delivering non-motorised users (NMU) opportunities, the re-use of the existing A303 and connection to existing byways. The Scheme should acknowledge the potential for future access within the WHS, e.g. the reconnection of the Avenue.

4.2.10(c) Deliver a high quality user experience.

The Scheme design should include architectural detailing and a choice of materials to enhance the user experience and become a new point of reference while travelling along the A303, whilst being safe and easy to navigate.

Key Commitments

- A.** D – CH17. The central support wall of the tunnel canopy structures at each end of the tunnel shall be set back from the leading edge of the structure.
- B.** D - CH19 Wherever the topography requires a variation in retaining wall height, there shall be no steps in the wall height and top of the wall shall follow a smooth alignment.
- C.** D – CH22. The tunnel buildings shall be underground so that only the front façades of the tunnel buildings shall be visible.
- D.** D – CH24 Boundary fencing and gates in the WHS shall be visually recessive and have a low reflectivity finish
- E.** D-CH25. The top of new highway boundary fencing within the western cutting shall be no higher than the ground level at the top of the cutting alongside which the fencing runs.
- F.** D-NOI6- Use of a noise absorbent finish to the walls/roof at the entrances/exits of the tunnel and Green Bridge Four.
- G.** D-CH16 The opening height of the portal entrances to the tunnel shall be no more than that required to satisfy the requirements of Design Standards TD 27 (DMRB 6.1). and BD 78 (DMRB 2.9).



F

A, B, C

E

D

G

Tunnel East Portal

Vision

4.2.6 (a) Respecting and Responding to the Historic Landscape.

The detailed design should take full account of the character of the unique historic landscape in which it sits. This includes the OUV of the WHS, the inter-visibility between monuments, heritage assets and the relationship between the WHS, its immediate setting and wider landscape. The Scheme should show due consideration of the objectives of the WHS Management Plan, to ensure that visibility of the Scheme is minimised, the design is elegant and impacts positively on the user experience within the WHS.

4.2.6 (b) Integration and Connectivity.

The detailed design should show careful and sensitive alignment of the proposed road in relation to cultural and ecological designations, landform, vegetation and features, so that the Scheme reflects the beauty of the natural, built and historic environment through which it passes. The earthworks design should reflect the rolling landform through its gradients and profiling, to reduce the visibility of the road. New structures should respond to the landform to maximise their concealment. The landscape and ecological design should maintain connectivity for existing habitats, re-establish landcover whilst giving due consideration to the aims and objectives of the WHS Management Plan.

4.2.6 (c) High quality and imaginative design.

the engineering and architectural design of the Scheme should create a clear design rationale and its context using a co-ordinated palette of materials and finishes, with imaginative design features, e.g. green bridges.

4.2.6 (d) Unity and elegance.

All structures and features should be considered holistically, to deliver a unified approach sympathetic to their scale, form and mass and opportunities that minimises their visual impact. This should include all highway furniture and hard landscape features. Where highways furniture and structures are visible, they should be elegant and sympathetic to their setting for both the road user and those within the wider landscape. Road signage should be designed for minimal impact, ensuring no unnecessary clutter, while ensuring the route is safe.

4.2.6 (e) User experience and safety.

The Scheme should improve the accessibility of the landscape to local communities, visitors and tourists through new recreational routes and crossings of the proposed road. The Scheme should aim to provide enjoyment and excitement for the road user, using materials and design features which engage with their sense of place and history of the landscape, whilst ensuring the road is easy to navigate through safe and secure infrastructure. The tunnel should enhance the user experience and become a new point of reference when travelling along the A303.

4.2.10 (a) Sustain the OUV of the WHS.

The Scheme should maximise the concealment of structures and features outside of the tunnel from the wider landscape through their siting in the landscape in relation to existing ground levels, choice of materials and colour tone of the finishes. New landscaping and earthworks should not seek to imitate the monuments within the WHS landscape. The dark skies environment should be improved by avoiding road lighting wherever practicable and by the Scheme alignment having regard to Solstice alignments.

4.2.10 (b) Due consideration of the objectives and policies of the WHS Management Plan.

This should include delivering non-motorised users (NMU) opportunities, the re-use of the existing A303 and connection to existing byways. The Scheme should acknowledge the potential for future access within the WHS, e.g. the reconnection of the Avenue.

4.2.10 (c) Deliver a high-quality user experience.

The Scheme design should include architectural detailing and a choice of materials to enhance the user experience and become a new point of reference while travelling along the A303, whilst being safe and easy to navigate.

Key Principles

- A. P-PWS01 Any new infrastructure (and associated elements) to be designed to be sympathetic with the surrounding landscape
- B. P-PWS02 All external scheme components to use a common materials palette; applying to colour, surface finish and texture. The colours to be in keeping with the surrounding landscape, and to echo local materials. The design should adopt an earthy tone to create spaces which are warm and natural in appearance. The final details will be developed in consultation with the SDCG and will be subject to onsite trial panels.
- C. P-PWS08 The surface finish to the tunnel service buildings shall be compatible with the adjacent walls.

Key Commitments

- D. D-CH17. The central support wall of the tunnel canopy structures at each end of the tunnel shall be set back from the leading edge of the structure.
- E. D-CH22. The tunnel buildings shall be underground so that only the front façades of the tunnel buildings shall be visible.
- F. D-CH24 Within the WHS, all fencing above the top of the cuttings shall be post and wire with stock-proof netting, and be consistent with other fencing within the WHS
- G. D-CH16 The opening height of the portal entrances to the tunnel shall be no more than that required to satisfy the requirements of Design Standards TD 27 (DMRB 6.1). and BD 78 (DMRB 2.9).



A, B, E, H, I

F

G

C, D

PRoW on the line of the old A303

Vision

4.2.6 (b) Integration and Connectivity.

The detailed design should show careful and sensitive alignment of the proposed road in relation to cultural and ecological designations, landform, vegetation and features, so that the Scheme reflects the beauty of the natural, built and historic environment through which it passes. The earthworks design should reflect the rolling landform through its gradients and profiling, to reduce the visibility of the road. New structures should respond to the landform to maximise their concealment. The landscape and ecological design should maintain connectivity for existing habitats, re-establish landcover whilst giving due consideration to the aims and objectives of the WHS Management Plan.

4.2.6 (d) Unity and elegance.

All structures and features should be considered holistically, to deliver a unified approach sympathetic to their scale, form and mass and opportunities that minimises their visual impact. This should include all highway furniture and hard landscape features.

Where highways furniture and structures are visible, they should be elegant and sympathetic to their setting for both the road user and those within the wider landscape. Road signage should be designed for minimal impact, ensuring no unnecessary clutter, while ensuring the route is safe.

4.2.6 (e) User experience and safety.

The Scheme should improve the accessibility of the landscape to local communities, visitors and tourists through new recreational routes and crossings of the proposed road. The Scheme should aim to provide enjoyment and excitement for the road user, using materials and design features which engage with their sense of place and history of the landscape, whilst ensuring the road is easy to navigate through safe and secure infrastructure. The tunnel should enhance the user experience and become a new point of reference when travelling along the A303.

4.2.10 (d) Due consideration of the objectives and policies of the WHS Management Plan.

This should include delivering non-motorised users (NMU) opportunities, the re-use of the existing A303 and connection to existing byways. The Scheme should acknowledge the potential for future access within the WHS, e.g. the reconnection of the Avenue.

Key Principles

- A. P-PRoW1 Public Rights of Way to have a bound surface where appropriate to their use.
- B. P-PRoW1 Within the WHS, materials sympathetic to the setting of the WHS to be used to accommodate use by, as appropriate, agricultural and land management vehicles, carriages, equestrians, cyclists and pedestrians, including people with impaired mobility, wheelchair users and parents with buggies and children.
- C. P-PRoW2 Timber posts and strained wire fences to be used to separate PRoWs from adjacent private land in accordance with Highway Construction Details in the Manual of Contract Documents for Highway Works (MCHW) and Design Manual for Road and Bridges (DMRB).
- D. P-PRoW2 Where necessary for adjacent land use, appropriate stock-proof netting to be added to strained wire fences.
- E. P-PRoW4 No lighting on any PRoW within the Scheme.

Key Commitments

- F. D-CH2 Break out the road surface of the redundant A303 within the WHS, except to the extent it is required to create a new Public Right of Way and/or Private Means of Access.
- G. D-CH24 Within the WHS, all fencing above the top of the cuttings shall be post and wire with stock-proof netting, and be consistent with other fencing within the WHS.
- H. D – CH26 Any bound surface within the WHS shall be a maximum of 3m in width. The bound surface on the PRoW in the WHS shall be suitably coloured at year one of operation to be visually recessive and sympathetically integrated within the WHS. Trial panels shall be constructed early in the construction period and at least one year in advance of the surface being laid. Prior to the surface being laid, the Authority shall consult with the members of HMAG on the proposed colour of the surface of the PRoW in the WHS, taking into account the results of the trial panels.
- I. D – CH 26 PRoW/PMA in WHS shall not have raised edgings, surface markings, lighting, benches, litter bins or other such street furniture.

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