A303 Amesbury to Berwick Down

TR010025

Volume 6

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

APFP Regulation 5(2)(q)

Planning Act 2008

The Infrastructure Planning (Examination Procedure) Rules 2010

May 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)

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Return to Index

Table of Contents

Tables

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. 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 relevant stakeholders as set out in this OEMP, will approve the ~~CEMP~~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 1.2.5 and 1.2.6.

e) The **maintenance authority** is a body tasked with the maintenance of the Scheme once the ~~scheme~~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.

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 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 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 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 3 of the DCO Examination process, includes updates and clarifications arising from ongoing engagement with stakeholders and in response to the Examining Authority's First Written Questions. Consequently, this version of the OEMP supersedes the OEMP originally submitted with the DCO application.

1.2 The Project

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.

Brief outline of the proposed works

1.2.3 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.

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

Preliminary works

1.2.5 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.

1.2.6 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.

1.2.7 For the avoidance of doubt, the controls set out in 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

1.2.8 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 OEMP[1]

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

1.2.9 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.

1.2.10 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.

1.2.11 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 relevant stakeholders as set out in this OEMP.

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

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 (Table 3.2b). As discussed above, the specific measures set out in 3.2a will form part of the CEMP for the preliminary works. The CEMP developed by the contractor for the main works must be developed in accordance with the principles set out in ~~Tables~~Table 3.2b.

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

~~1.3.2~~ This OEMP appends an Environmental Constraints Plan (Annex A.1~~) and~~), an Outline Archaeological Mitigation Strategy ((OAMS) Annex A.2).

1.3.2 and a visual aid showing the relationship between the CEMPS and other management plans (Annex A.3). The OAMS has been succeeded by the Detailed Archaeological Mitigation Strategy (DAMS) which was issued in draft at Deadline 2.

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 ~~Detailed Archaeological Mitigation Strategy (~~DAMS~~) will include~~ includes an Outline Written Scheme of Investigation, ~~which will be~~ developed in consultation with the members of the Heritage Monitoring and Advisory Group (HMAG[2]) and Wiltshire Council Archaeological Services (WCAS) and is intended to be a certified document in the DCO.

1.3.4 Furthermore, ~~as set out in the OAMS,~~ the DAMS ~~will require~~requires the appropriate contractor to develop a Heritage Management Plan, method statements, and where appropriate, site specific written schemes of investigation.

[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 should prepare a revised (reduced) version of the table, scoped in agreement with The Authority, to the extent of their contractual responsibilities.

Table 2.1: Roles and responsibilities during construction

Role	Responsibilities
The Authority	**CEMP responsibilities:** • Approval of document, related Management Plans defined within this OEMP and any detailed schemes required by this OEMP.
~~-~~**Archaeological Clerk of Works (ACoW) (**The Authority**)**	**CEMP responsibilities:** • ~~Approval~~Review of ~~document, related~~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). **Overall responsibilities:** ~~**defined within this OEMP and any detailed schemes**~~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. The ACoW will: • Monitor compliance by the contractor/s with their HMPs. • Give Tool Box Talks, where required ~~by this OEMP (for example, protected species~~, 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. • Monitor the contractor/s compliance with their obligations to ensure that the CEMP, the contractor's HMPs and any requirements of the DAMS are carried out. • 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 SSSWIs. •

Role	Responsibilities
Project Manager[3] (PM) (all contractors)	**CEMP responsibilities:** • ~~Approval of~~Review the CEMP, 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. **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: • 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
Environment Manager (EM) **(all contractors)**	**CEMP responsibilities:** • ~~Preparing~~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. • ~~Managing~~Manage the delivery of the various management plans defined within the appendices of this OEMP, using appropriate technical expertise as required. • ~~Managing~~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. **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: • 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. **Preliminary works contractor responsibilities:** For the preliminary works contractors, the responsibilities of the ECoW~~, ACoW~~ and CRM set out below ~~will~~may be undertaken by the EM as appropriate.

Role	Responsibilities
Ecological Clerk of Works (ECoW) **(main works contractor)**	**CEMP responsibilities:** • Review of relevant sections of the CEMP. • Responsible for ensuring that all ecological elements of the CEMP are complied with. • Preparing the Landscape and Ecology Management Plan ((LEMP) refer to MW-LAN1) together with the Landscape Specialist. **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: • 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.

Role	Responsibilities
~~**Archaeological Clerk of Works (ACoW): (main works contractor)**~~	~~**CEMP responsibilities:**~~ • ~~Review of relevant sections of the CEMP, when prepared by the EM.~~ • ~~Responsible for ensuring that all archaeological elements of the CEMP are complied with during construction.~~ • ~~Prepares the Heritage Management Plan (HMP).~~ ~~**Overall responsibilities:**~~ ~~Responsible for ensuring 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.~~ ~~The ACoW will be required to:~~ • ~~Monitor and ensure compliance with the HMP.~~ • ~~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 ensuring that these are put in place and complied with.~~ • ~~Monitor construction works to ensure that the CEMP, the HMP and any requirements of the DAMS are carried out.~~ • ~~Monitor protection measures to ensure these are in place and maintained appropriately throughout the construction period in compliance with the HMP.~~ • ~~Liaise and consult closely with The Authority on an ongoing basis throughout the construction works and the handover to the operation phase to ensure compliance with all measures set out in the CEMP, HMP and the DAMS.~~
Landscape Specialist (main works contractor)	**CEMP responsibilities:** • 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. • ~~Prepares~~Prepare the LEMP (Refer to MW-LAN1) together with the ECoW. **Overall responsibilities:** • 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
Arboricultural Specialist (main works contractor)	**CEMP responsibilities:** • 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. • ~~Prepares~~Prepare the Arboricultural Mitigation Strategy for the main works. **Overall responsibilities:** • 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
Traffic Control Officer (main works contractor)	**CEMP responsibilities:** • Review of relevant traffic sections of the document. • Preparing a Traffic Management Plan ((TMP) including a Construction Workforce Travel Plan, a Site Access Plan and a Site Travel Plan) and submitting this for approval. **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: • Management and implementation of traffic management measures identified within the TMP (see MW-TRA2). • Ensuring 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. • Ensuring 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. • Management of the layout of site access and egress points for all construction sites and compounds. • Arranging 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. • Maintaining a log of all complaints received in relation to traffic during Scheme construction. • Organising regular progress meetings to include Wiltshire Council, Wiltshire Police, other emergency services, the Ministry of Defence and English Heritage.

Role	Responsibilities
Site Materials and Waste Manager (main works contractor)	**CEMP responsibilities:** • 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. • ~~Prepares~~Prepare the Site Waste Management Plan (SWMP). • Responsible for ensuring that a Materials Management Plan (MMP) is prepared. **Overall responsibilities:** • 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.
Community Relations Manager (CRM) (main works contractor)	**CEMP responsibilities:** • Review of relevant sections of the document. **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: • Responding to any concerns or complaints raised by the public in relation to the works. • Liaising with the PM and EM on ~~landowner and~~ community and stakeholder concerns relating to the works and act as the main interface with ~~these~~the community and other stakeholders, alongside any The Authority presence that is required; • Maintain a log of complaints relating to the environment. • Ensuring that the PM and the EM are informed of any complaints relating to the environment. • Keeping the public informed of project progress and any construction activities that may cause inconvenience to local communities. • Engaging 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. • Ensuring that the needs of groups with protected characteristics as identified within the Equality Act 2010 are considered during the construction process.

Role	Responsibilities
Agricultural Liaison Officer (main works contractor)	**CEMP responsibilities:** • Review and action relevant sections of the CEMP which to apply to agricultural businesses likely to be affected by the Scheme. **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: • Coordinating land drainage surveys and sharing pre and post-construction land drainage schemes with owner/occupiers in advance in finalisation for their consideration; • Coordinating the provision of a detailed pre-construction condition survey to include soil surveys of owner/occupiers' land; • Advising the contractor on risks relating to the translocation of soil diseases and ensuring appropriate protective provisions are implemented; • Ensuring that owner/occupiers are consulted in respect of requirements relating to field entrances and accesses across the construction strip and land-locked or severed land parcels; • Arranging quarterly meetings with agent representatives of owner/occupiers; • Undertaking pre-construction and day-to-day discussions with affected owner/occupiers to minimise disruption, where possible, to existing farming regimes and timings of activities; • Undertaking site inspections during construction to monitor working practices and compliance of the contractor/s with their obligations to owner/occupiers under this OEMP; and • Liaising on reinstatement measures following completion of the works.

Role	Responsibilities
All Site Staff (all contractors)	**CEMP responsibilities:** • 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. **Overall responsibilities:** 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: • 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 (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.).	A unique identifier defined within these REAC tables to enable simple reference to individual measures
Source Reference (Source Ref.)	An identifier which is directly relevant to the action or commitment, for example a source such as a mitigation reference in the ES. 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).
Action / commitment *(including specific location and any monitoring required)*	The action that is required is defined. The location for the action is Scheme wide, unless otherwise stated. Any monitoring that is required in relation to the action is defined.
Reporting criteria	The criteria which define the successful implementation of the action, such as a document approval which confirms the action has been undertaken
Responsible person(s)	The person or body responsible for delivery of the action; this will often be the contractor

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 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 relevant stakeholders as set out in this OEMP.

~~3.4~~3.3 Record of Environmental Actions and Commitments (REAC)

Table 3.2a: REAC tables for the preliminary works[4]

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
GENERAL PROVISIONS				
PW-G1	n/a	**CEMP preparation:** The preliminary works contractor (all) shall prepare a CEMP for their works, as applicable to the scope of their contract, ~~prior to the commencement of their works.~~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. 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.	The Authority approval of the CEMP.	Preliminary works contractor (all)
PW-G2	n/a	**Single point of contact:** The preliminary works contractor (all) shall identify a person within their CEMP who will be the single point of contact for the regulatory authorities. 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.	The Authority approval of the CEMP.	Preliminary works contractor (all)
PW-G3	n/a	**Management structure:** 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.	The Authority approval of the CEMP.	Preliminary works contractor (all)
PW-G4	n/a	**Core working hours:** 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). 07:30 – 18:00 Monday to Friday 07:30 – 13:00 Saturday To maximise productivity, a period of up to one hour before and up to one hour after normal working hours ~~will~~may be used for start-up and close down of activities. This will include, but not be limited to, deliveries,	n/a	Preliminary works contractor (all)

[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)
		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 ~~agreed with~~made to Wiltshire Council prior to undertaking the works under Section 61 of the Control of Pollution Act 1974 ~~(refer to PW-NOI2).~~. Any variations to core hours and/or additional hours required would be agreed with Wiltshire Council. *Additional working hours* 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. 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. 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.		
PW-G5	n/a	**Method Statements:** 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. The method statements shall define any specific environmental control measures, to be implemented to meet the requirements of their CEMP. The preliminary works contractor (all) shall submit the method statements and risk assessments to, and obtain approval from, The Authority before commencing the works.	The Authority approval of the method statements.	Preliminary works contractor (all)
AIR QUALITY				
PW-AIR1	ES Chapter 13, Section 13.9	**Best Practicable Means:** 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:	Implementation of BPM.	Preliminary works contractor (all)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		a) 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. b) Remove materials that have the potential to produce dust from site as soon as possible, unless being re-used on site c) Cover, seed or fence stockpiles to prevent wind whipping. 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). e) All construction plant would use fuel equivalent to ultra-low sulphur diesel (ULSD) where possible.		
CULTURAL HERITAGE				
PW-CH1	ES Chapter 6, Section 6.8	**Heritage Management Plan (HMP):** 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 (HMAG[5]) and Wiltshire Council Archaeological Services (WCAS) and shall address: a) 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. b) 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 conditions caused by weather events (rutting, compaction of soft ground etc.). c) issues of security for vulnerable sites / areas of archaeological interest outside the normal working hours, and at weekends. d) procedures for unexpected archaeological discoveries. The preliminary works ~~shall~~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.	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) and approved by The Authority prior to the relevant works commencing.	Preliminary works contractor (archaeology)
PW-CH2	DCO Requirement 5	**Works in accordance with Archaeological Mitigation Strategy:** The preliminary works contractors (all) shall undertake the archaeological works, at all times, in accordance with the DAMS and DCO Requirement 5.	Works undertaken in accordance with the	Preliminary works contractor (all)

[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)
	ES Chapter 6, Section 6.8		DAMS and Requirement 5.	
PW-CH3	ES Chapter 6, Section 6.8	**Site Specific Written Schemes of Investigation:** 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.	Production of SSWSI in consultation with the members of HMAG (for works within 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) and approval by The Authority prior to the relevant works commencing.	Preliminary works contractor (archaeology)
PW-CH4	ES Chapter 6, Section 6.8	**Fencing of heritage assets:** The preliminary works contractor (archaeology) shall ensure all heritage assets identified in the DAMS for protective fencing are securely fenced during the early stages of the preliminary works (in conjunction with other mitigation measures. 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. 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).	Consultation on Method Statements / SSWSIs with the members of HMAG (for works within 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) and approval from The Authority prior to the relevant works commencing.	Preliminary works contractor (archaeology)
PW-CH5	ES Chapter 6, Section 6.8	**Limiting landtake:** 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 Table 2.2 within Annex A.2 and its associated figures).	Production of SSWSI in consultation with the members of HMAG and approval by The Authority prior to the	Preliminary works contractor (archaeology)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		The preliminary works contractor (archaeology), or a contractor under their direction shall install, during the early stages of the preliminary works, temporary barrier fencing that demarcates the amount of land take at Sites 24 and 28. The preliminary works contractor (archaeology) shall produce a SSWSI for sites 24 and 28, including the identification and installation of appropriate fencing	relevant works commencing.	
~~PW-CH6~~	~~ES Chapter 6, Section 6.8~~	~~**Avoidance of archaeological remains:**~~ [6] ~~Where service / utility corridors require excavation the relevant preliminary works contractors (utilities) shall avoid significant archaeological remains wherever possible and implement appropriate archaeological mitigation measures where impacts are unavoidable. The contractor shall prepare a SSWSI where service utility corridors cross archaeologically sensitive areas shown on figures appended to Annex A.2.~~	~~SSWSIs shall be developed in consultation with HMAG (for works inside the WHS) and WCAS (for works outside the WHS) and approved by The Authority prior to works commencing.~~	~~Preliminary works contractor (all)~~
LANDSCAPE AND VISUAL				
PW-LAN1	ES Chapter 7, Section 7.8	**Retained vegetation:** 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. *Nile Clumps* 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.	Consultation with the members of HMAG and approval from The Authority prior to any fencing being installed within the WHS. Consultation with Wiltshire Council on the fencing requirements to the Nile Clumps	Preliminary works contractor (all) Preliminary works contractor (ecology) – fencing of the Nile Clumps
PW-LAN2	DCO Requirement 8	**Works in accordance with approved landscaping scheme:**	Works undertaken in accordance with Requirement 8.	Preliminary works contractor (roads)

[6] This item has been removed as all SSWSIs will be produced by the preliminary works contractor (archaeology) based on the DAMS which incorporates service/utility corridors.

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		The preliminary works contractor (roads) will ensure that landscaping works associated with the preliminary works involving highways works which are carried out in accordance with the approved landscaping scheme produced in conformance with Requirement 8 of the DCO.		
BIODIVERSITY				
PW-BIO1	ES Chapter 8, Section 8.8	**Biosecurity:** The preliminary works contractor (all) shall implement measures to promote biosecurity and minimise the risk that invasive non-native species and diseases are spread as a consequence of the Scheme. This will include, Tool Box Talks, exclusion zones and method statements on the cleaning of equipment (including boots) and vehicles on and off site and between sites, and the segregation of vegetation arisings, including suitable disposal methods.	Implementation of the identified actions.	Preliminary works contractor (all)
PW-BIO2	ES Chapter 8, Section 8.8	**Great crested newts (GCN):** 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. 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. **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.	Implementation of the identified actions. Completion / return of working permits or other relevant approvals.	Preliminary works contractor (~~ecologyall~~)
PW-BIO3	ES Chapter 8, Section 8.8	**Reptiles:** 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. 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. Following the habitat clearance, all areas shall be maintained in an unfavourable state to discourage reptiles from entering the working area.	Implementation of the identified actions. Completion / return of working permits or other relevant approvals.	Preliminary works contractor (~~ecologyall~~)
PW-BIO4	ES Chapter 8, Section 8.8	**Breeding birds (excluding Schedule 1):** 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.	Implementation of the identified actions Completion / return of working permits or	Preliminary works contractor (all)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		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. 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.	other relevant approvals.	
PW-~~BIO5~~BI05	ES Chapter 8, Section 8.8	**Schedule 1 / Annex 1 breeding birds**: ~~If~~In addition to PW-BIO4, if works are carried out at a time or location that has the potential to disturb Schedule 1 / Annex 1 breeding birds~~,~~ then all works ~~should only commence within these areas on receipt of suitable licences. All works should~~shall be undertaken under a method statement ~~submitted as part of the licence process~~, whereby depending on the species present and the works to be undertaken, specialist supervision may be required. 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. **Stone curlews:** Due to the sensitivity of stone curlews to human disturbance (they can be disturbed by human activities within ~~450m~~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. Deterrent measures include (but are not limited to) the following: a) the use of visual screening to block line of sight and, to avoid disturbance to stone curlew outside of the Scheme boundaries; and b) planting areas of temporary bare ground with a quick growing crop or quick growing wild flower or game cover seed mix. Even with the use of these deterrent measures, there may still be a risk of stone curlews nesting within the ~~construction works area~~Scheme boundary (or within ~~450m~~5000m). In the event that nesting stone curlews are found located within the ~~construction works area~~Scheme boundary or within ~~450m~~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. *Replacement Plot* 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.	~~Completion / return of licences.~~ Monitoring and reporting arrangements will be made in consultation with Natural England and approved by The Authority.	Preliminary works contractor (ecology)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		Monitoring: An appropriate specialist~~,~~ shall undertake monitoring of stone curlews at the retained breeding plots within ~~450m~~500m of the Scheme boundary (where public access is available / can be arranged) and at the newly created ~~compensation~~ nesting ~~plots~~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.		
~~-~~PW-BIO6	ES Chapter 8, Section 8.8	**Badgers:** The preliminary works contractor (ecology) shall apply for a Scheme-wide Natural England badger sett closure licence. The preliminary works contractor (ecology) will be responsible for updating / amending the licence as required. The licence will include provision for the destruction of all setts within the works area and will include a detailed method statement setting out the measures to be implemented. Once vegetation clearance has been undertaken, the preliminary works contractor (ecology) shall resurvey these areas of the site to confirm the total number and extent of known setts affected by the works. 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. 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.	Natural England licence return.	Preliminary works contractor (ecology)
~~-~~PW-BIO7	ES Chapter 8, Section 8.8	**Bat roosts:** Should it be necessary to destroy a known bat roost, the preliminary works contractor (ecology) will be responsible for the application of a Natural England EPS licence in order to facilitate the works. The preliminary works contractor (ecology) will be responsible for ensuring that all works detailed within the licence are carried out in accordance with the method statements. Where bat roosts are being retained within the Scheme boundaries, the following methods should be incorporated: a) consideration given to seasonal use of roost in defining working methods; b) exclusion zones to be established and maintained; c) any works within 20m of a confirmed roost shall be carried out under the supervision of an appropriate specialist; and d) measures shall be applied to maintain dark conditions within 20m of identified roosts, including measures to avoid light spill from construction lighting. 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:	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)
		a) All trees within the Order Limits and within 20m of ~~the~~any works area will be inspected by a Natural England licenced bat ecologist from the ground and categorised for their potential for bat roosts, in accordance with the current best practice; b) Trees which have no or low suitability can be section felled; 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; 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; e) Works affecting bat roosts shall only commence on receipt of suitable method statements, licences, permits or other relevant approvals. **Locations**: To be updated following pre-construction surveys.		
PW-BIO8	ES Chapter 8, Section 8.8	**Otters:** 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. Works should only commence within these areas on receipt of suitable permits or other relevant approvals. **Locations:** River Till chainages 4000m to 4100m; River Avon viaduct, chainages 12200m to 12300m	Application and return of Natural England EPS licence (if necessary).	Preliminary works contractor (ecology)
PW-BIO9	ES Chapter 8, Section 8.8	**Water voles:** 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. **Locations:** River Till chainages 4000m to 4100m; River Avon viaduct, chainages 12200m to 12300m	Return of protected species licences from Natural England (if required).	Preliminary works contractor (ecology)
PW-BIO10	ES Chapter 8, Section 8.8	**Other notable species:** Other notable species are present within the Scheme boundaries including brown hare (*Lepus europaeus*), hedgehog (*Erinaceus europaeus*), polecat (*Mustela putorius*), harvest mouse (*Micromys minutus*) and water shrew (*Neomys fodiens*). 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.	Implementation of the identified actions.	Preliminary works contractor (all)
PW-BIO11	n/a	**Phasing of preliminary works:** 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	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)
		items PW-BIO2 – PW-BIO9) are sufficiently advanced in relation to the species / habitats present prior to the commencement of the relevant preliminary works.		
NOISE AND VIBRATION				
PW–NOI1	ES, Chapter 9, Section 9.8	**Best Practicable Means:** 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. 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. 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: a) control of noise and vibration at source - such as 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: 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	**Section 61 Consents**: ~~Before~~ Except in the case of an emergency, for any ~~works are~~work required to be undertaken outside of core ~~working~~ hours ~~and which comprise noise generating activities,~~(not including repairs or maintenance), the relevant preliminary works contractor (all) shall ~~consider submission of~~make an application to ~~the~~ Wiltshire Council ~~(in a format as agreed) for~~ prior ~~consent~~ to undertaking the works under Section 61 of the ~~CoPA.~~ Control of Pollution Act 1974. 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.	Agreement of Section 61s with Wiltshire Council (if required).	Preliminary works contractor (all)
PW–NOI3	ES, Chapter 9, Section 9.8	**Noise and Vibration Management Plan:** 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. The plan shall include, but not limited to, the following:	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)
		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) or provision of temporary re-housing (if deemed required) and to ensure such measures are in place as early as reasonably practicable; d) noise and vibration monitoring protocols including monitoring locations, stages during construction at which monitoring will be undertaken, and methods of publishing the results; e) details of inspection and maintenance schedules to be undertaken; f) processes to ensure ongoing compliance with all controls and consent for the works; g) process for implementing corrective actions that may be required to avoid or address a potential non-compliance; and h) consider the need for a noise insulation and temporary rehousing policy for works in close proximity to receptors which have the potential to generate noise levels exceeding 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. ~~h)~~ The preliminary works shall be undertaken in accordance with the Noise and Vibration Management Plan.		
PW–NOI4	ES, Chapter 9, Section 9.8	**Vibration:** 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: a) BS 5228 – 2 Code of practice for noise and vibration control on construction and open sites; 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 c) BS 7385 - 2 Evaluation and measurement for vibration in buildings – Part 2: Guide to damage levels from groundborne vibration *Protection of building occupants from disturbance* No start-up or shut down of vibratory plant e.g. rollers or compactors, within 50m of receptors. 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. *Protection of buildings from damage*	Completion of appropriate assessments, identification of buildings / properties at risk 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)
		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 6 mms^{-1} (Table 9.6, Chapter 9 of the ES) is likely to be exceeded. Activities requiring an appraisal ~~could~~may include tunneling, vibratory compaction, impact or vibratory piling and other driven processes. 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: a) agree and consult with Wiltshire Council regarding monitoring for vibration and strain induced in the building during the works; b) consult occupiers of properties about: 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 c) carry out a condition survey before and after the relevant works. 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. *Protection of Sensitive Cultural Assets, excluding buildings* The preliminary works contractor (utilities, roads and ground investigation shall identify any potentially vibration sensitive cultural heritage assets 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 investigation and the operator of the equipment. Wiltshire Council will be notified, as appropriate.		
PW-~~-~~ NOI5	ES, Chapter 9, Section 9.8	**~~Noise~~ Monitoring of noise and vibration:** 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 ~~CEMP~~ approved for their works 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. The site reviews will be logged and any remedial actions recorded. Such checks will include: a) compliance with hours of working;	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)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		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 ~~CEMP~~Noise and Vibration Management Plan. 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.		
GEOLOGY AND SOILS				
PW–GEO1	ES Chapter 10, section 10.8	**Ground investigation:** All GI works will 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).	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	In the event that contaminated land, including groundwater, is found at any time, which was not previously identified in the environmental statement, Requirement 7 of the DCO is applicable and preliminary works contractor (all) shall follow those provisions. 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.	Works undertaken in accordance with Requirement 7.	Preliminary works contractor (all)
WATER ENVIRONMENT				
PW–WAT1	ES Chapter 11, Section 11.8	**Pollution control:** 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.	The Authority approval of the CEMP.	Preliminary works contractor (all)
PW-WAT2	DCO Requirement 10	**Surface water drainage:** 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.	Works undertaken in accordance with Requirement 10.	Preliminary works contractor (roads)
PEOPLE AND COMMUNITIES				
PW–COM1	n/a	**Notification of works:** 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,	n/a	Preliminary works contractor (all)

Ref	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		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.		
TRAFFIC MANAGEMENT				
PW–TRA1	n/a	**Traffic management measures:** The preliminary works contractor (all) shall implement appropriate traffic management measures during any relevant preliminary works, where these works could impact on all public roads and non-motorised user (NMU) paths. 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 Traffic Signs Regulations and General Directions. 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.	Provision of appropriate traffic management measures.	Preliminary works contractor (all)

Table ~~3.~~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	**BS EN 14001:** The main works contractor shall ~~have~~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. 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. 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.	The Authority approval of the EMS. ~~Project~~ EMS certification to ISO140001, maintained for duration of construction.	Main works contractor
MW-G2	n/a	**Environmental Policy:** The main works contractor shall develop a Scheme specific environmental policy~~, prior to the EMS, and~~ to be included as part of the EMS. This policy will be developed in line with ~~Highways England's~~The Authority's environmental policies and the scheme objectives and will set out how the main works contractor will: a) adhere to the requirements of environmental legislation during the works; b) commit to mitigating the impacts associated with the works; c) commit to good practice in environmental performance throughout the phase of works; and d) 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	**Monitoring of actions:** 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.	Inclusion of commitment in approved EMS and CEMP.	Main works contractor
MW-G4	n/a	**Considerate Constructors Scheme:** The main works contractor shall sign up to and adhere to the Considerate Constructors Scheme (CCS).	Certification to CCS standard.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
GENERAL PROVISIONS – CEMP AND RELATED PLANS, METHOD STATEMENTS				
MW-G5	n/a	**Preparation of a CEMP:** 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. In preparing the CEMP, the main works contractor shall consult with Wiltshire Council ~~and,~~ the Environment Agency~~.~~, Historic England and Natural England on those aspects of the CEMP that are relevant to their functions.	The Authority approval of the CEMP.	Main works contractor
MW-G6	n/a	**Revision of the CEMP:** The main works contractor shall consult with Wiltshire Council ~~and,~~ 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.	The Authority approval of proposed revisions.	Main works contractor
MW-G7	n/a	**Management Plans:** 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: a) Site Waste Management Plan; b) Emergency Preparedness and Response Plan; c) Heritage Management Plan; d) Ground Movement Monitoring Strategy; e) Landscape and Ecology Management Plan; ~~d)~~f) Arboricultural Mitigation Strategy; ~~e)~~g) Noise and Vibration Management Plan; ~~f)~~h) Noise Insulation and Temporary Rehousing Policy; ~~g)~~i) Soils Management Strategy; ~~h)~~j) Water Management Plan; ~~i)~~k) Groundwater Management Plan; ~~j)~~l) Materials Management Plan; and ~~k)~~m) Traffic Management Plan. 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.	The Authority approval of the plans. Consultation with Wiltshire Council, the Environment Agency, Historic England and Natural England on preparation of and material updates to plans in respect of matters relevant to their functions.	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 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.		
MW-G8	n/a	**Method Statements:** 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, any relevant ~~Topic Specific~~topic specific Management Plans~~,~~ (refer to MW-G7), and will consider the cumulative effects of concurrent construction activities.	The Authority approval of the method statements.	Main works contractor
MW-G9	n/a	**Piling Risk Assessments:** 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).	The Authority approval of the risk assessments.	Main works contractor
MW-G10	ES	**Unexploded Ordnance Risk Assessments:** The main works contractor shall carry out risk assessments for the possibility of unexploded ordnance being found within construction areas. The main works contractor shall prepare and implement an emergency response procedure to respond to the discovery of unexploded ordnance (see also MW-G20). This will include notifications to Wiltshire Council and the emergency services.	The Authority approval of the risk assessments.	Main works contractor
MW-G11	n/a	**Handover Environmental Management Plan (HEMP):** 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 ~~Highways England.~~the Environment Agency, Wiltshire Council, Natural England and Historic England on matters related to their functions and with and The Authority. This 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 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. 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.	The Authority approval of the HEMP.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		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.		
GENERAL PROVISIONS – WORKING HOURS				
MW-G12	ES	**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). *Normal working hours (for all works excluding earthworks and tunnelling)* 07:00 – 19:00 Monday to Friday 07:00 – 13:00 Saturday *Earthworks* ~~Summer:~~ 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:~~ Winter (defined as outside outside of British Summer Time (i.e. late October to late March): As normal working hours above *Tunnelling:* 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. To maximise productivity within the core hours, a period of up to one hour before and up to one hour after normal working hours ~~will~~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 ~~agreed with~~made to Wiltshire Council prior to undertaking the works under Section 61 of the Control of Pollution Act 1974.	n/a	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		Any variations to core hours and/or additional hours required ~~would~~shall be agreed in writing with Wiltshire Council. and The Authority.		
MW-G13	n/a	**Site Specific Working hours:** The main works contractor shall adhere to reduced working hours at the specified locations: *Normal working hours* 07:30 – 18:00 Monday to Friday 07:30 – 13:00 Saturday **Location:** Chainage 3520 to Chainage 4180 and Chainage 11300 to Chainage 12400. As for MW-G12, a period of up to one hour before and up to one hour after normal working hours ~~will~~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. An approach to seeking approval for any variations to site specific working hours will be included within the CEMP ~~following discussion~~in consultation with Wiltshire Council.	n/a	Main works contractor
MW-G14	n/a	**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. 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. 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.	n/a	Main works contractor
MW-G15	n/a	**Abnormal Deliveries**: The main works contractor shall seek approval from Highways England (with respect to the ~~A303~~Strategic Road Network) and from ~~Wiltshire Council~~the appropriate local highway authority (all	Approval from The Authority and / or Wiltshire Council as	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		other roads) for delivery of abnormal loads or those that require a police escort if these are to be delivered outside core working hours.	relevant to the roads in question.	
MW-G16	n/a	**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) 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 include the tunnelling operation, tunnel related activities or transport of tunnel arisings from the tunnel boring machine to the arisings management area at Longbarrow. ~~**Location:** chainage 6000 to chainage 7500~~	Periods of suspension defined in the main works contractor's approved CEMP. Consultation with the members of HMAG for the proposed hours and Approval by the Authority.	Main works contractor
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 ~~ACoW, the~~ CRM and other relevant roles (see Table 2.1 for roles).	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)
		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. 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.		
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 response plan to cover incidents on site, environmental hazards (flooding, heavy rain, high winds), and other risks that may occur on site. The plan will take into account any specific requirements determined by The Authority. The plan will include the following as a minimum: 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. 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.	The Authority approval of the CEMP, including the Emergency Preparedness and Response Plan.	Main works contractor
MW-G21	n/a	**Emergency Access:** 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 ambulances.	Letter of agreement with relevant fire authority.	Main works contractor
MW-G22	n/a	**Fire prevention and control:** 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.	Letter of agreement with relevant fire authority.	Main works contractor
MW-G23	n/a	**Extreme weather events:** 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. 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.	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)
MW-G24	n/a	**Non-conformance and Incidents register:** 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: 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	**Environmental documentation:** Copies of all environmental documentation relevant to the works will be filed on site, and made available for internal inspection.	Implementation of the specified actions.	Main works contractor
GENERAL PROVISIONS – SITE MANAGEMENT				
MW-G26	n/a	**Construction site management:** The main works contractor shall use the ~~following~~ approaches ~~to~~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	**Site hoardings around construction compounds:** 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) Painting the side of hoardings facing away from the site, and to keep them free of graffiti or posters. c) Providing site information boards. d) Displaying notices on site boundaries to warn of hazards on site. e) Providing signage to indicate re-routed pedestrian/cycle paths. 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 habitats, trees or hedgerows. In order to minimise landscape impacts of the compounds, the main works contractor shall follow the below measures in relation to construction compounds: a) buffer zones shall be created between the compounds and construction works and existing retained vegetation through construction exclusion zones and suitable perimeter fencing;	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)
		b) temporary earth bunds, created from excavated soil, shall be located around the perimeter of the compounds; c) all buildings within compounds shall be restricted to one storey (no more than 4m in height) and ~~rendered / painted~~be in a suitable ~~colours~~colour to aid in their integration within the landscape; and d) any hoarding ~~shall be~~ installed around the perimeter of the compounds~~, stained~~ shall be in a suitable ~~approved colours~~colour, to aid in its integration within the landscape. Fencing and hoarding shall be kept well maintained throughout construction. 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. 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 ~~floodplain~~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.		
MW-G29	ES Chapter 7, Section 7.8 ES Chapter 8, Section 8.8	**Site lighting:** 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. Lighting ~~should~~shall be at the minimum luminosity necessary and use low energy consumption fittings and should avoid light spillage. Lighting ~~should~~shall also be designed, positioned and directed so as not to unnecessarily intrude on 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 ~~sites~~portal areas.	The Authority approval of the CEMP.	Main works contractor
MW-G30	n/a	**Clearance and re-instatement of sites on completion:** 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.	Implementation of the specified actions.	Main works contractor
GENERAL PROVISIONS – COMMUNITY ENGAGEMENT, COORDINATION				

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
MW-G31	n/a	**Community Engagement:** The main works contractor shall take reasonable steps to engage with nearby residents, especially those who may be detrimentally affected by the Scheme. The main works contractor shall use the following materials to engage with residents and other stakeholders: 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, road closures and works recently completed and an enquiry procedure 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. c) Works Notices – the main works contractor shall notify occupiers of nearby or affected properties, businesses ~~and~~, 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: 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. 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. 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. *Liaison with the MoD* The main works contractor shall consult with the MoD to ensure that the construction design and plant~~, e.g. cranes,~~ do not interfere with MOD's operations.	The Authority approval of the approach. Consultation with the MoD.	Main works contractor
MW-G32	n/a	**Coordination**: 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:	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)
		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 ~~minimising disruption to road users;~~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; e) construction workforce: monitoring the impact of the workforce on the community in its travel to and from work; and f) other construction projects: maintaining communication between the works on the Scheme and those of other construction projects in the vicinity. **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.		
AIR QUALITY AND CLIMATE CHANGE				
MW-AIR1	ES Chapter 5, Section 5.8	**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: 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. b) Remove materials that have the potential to produce dust from site as soon as possible, unless being re-used on site c) Cover, seed or fence stockpiles to prevent wind whipping. 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). e) All construction plant would use fuel equivalent to ultra-low sulphur diesel (ULSD) where possible.	Implementation of BPM.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
MW-AIR2	ES Chapter 5, Section 5.8	**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: 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. 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. c) Plan site layout so that machinery and dust causing activities are located away from receptors, as far as ~~is possible~~reasonably practicable. d) Maintain and inspect on-site haul routes for integrity and operate a programme of routing maintenance and where necessary carry out repairs to the surface as soon as reasonably practicable. e) The details of the further standard mitigation will be outlined in the CEMP produced by the contractor.	Implementation of BPM.	Main works contractor
MW-AIR3	ES Chapter 5, Section 5.8	**Tunnel Ventilation Strategy:** The main works contractor shall develop a Tunnel Ventilation Strategy, which will include an appropriate ventilation system during construction of the tunnel.	The Authority approval of the Tunnel Ventilation Strategy.	Main works contractor
MW-AIR4	ES Chapter 5, Section 5.8	**Construction Air Quality Monitoring:** 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) 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. 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. Monitoring will be continued until the site is deemed to be low risk (i.e. higher risk activities have ceased). The approach to the reporting of air quality monitoring information is to be discussed with Wiltshire Council.	Establishment of air quality baseline prior to construction. Implementation of the specified actions.	Main works contractor
MW-AIR5	ES Chapter 5, Section 5.8	**Climate change mitigation:**	Implementation of the measures.	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 implement measures to reduce emissions during the construction of the Scheme, for example through specification of ultra-low sulphur diesel, management and minimisation of energy use.		
CULTURAL HERITAGE				
MW-CH1	DCO Requirement 5 ES Chapter 6, Section 6.8	**Heritage Management Plan:** The main works contractor shall develop a Scheme-wide Heritage Management Plan (HMP), based upon the DAMS (in accordance with DCO Requirement 5) 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: a) all temporary and permanent works, including boundary fencing, vegetation clearance, ground investigations, demolition, utility diversions, access routes / haul roads and works compounds. 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 (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 unexpected archaeological discoveries.	The plan shall be prepared in consultation with the members of HMAG and WCAS and approved by The Authority prior to the main works commencing.	Main works contractor
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, in consultation with the members of HMAG, for the installation of fencing. 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 fencing within the WHS prior to the main works commencing.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
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~~). If buildings are set-up to the east of the hedge, then they shall be of single storey height only and will be screened from the WHS and from Winterbourne Stoke by an earth bund and other appropriate measures.~~ – approximate chainage 5275).	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) prior to the start of the work. The Method Statement will address: 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 b) 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. 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 (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) and approved by The Authority 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. The main works contractor shall prepare a SSWSI where service utility corridors cross archaeologically sensitive areas, as shown in Annex A.2.	SSWSIs prepared ~~with~~in consultation with the members of HMAG (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) and approved by The Authority prior to	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
			the relevant works commencing.	
MW-CH7	n/a	**Monitoring of heritage assets:** 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.	Monitoring arrangements prepared in consultation with the members of HMAG (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) and approved by The Authority prior to the relevant works commencing.	Main works contractor
MW-CH8	Detailed Archaeological Mitigation Strategy	**Ground Movement Monitoring Strategy** The main works contractor shall develop a Ground Movement Monitoring Strategy 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 and identify measures to ensure the protection of assets.	The Authority approval of the strategy prior to tunnelling works commencing.	Main works contractor
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 approximately 150m wide.	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 ~~vertical~~ 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

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
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 ~~road~~ signs ~~will~~shall be set higher than the ~~top~~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, and will be designed to minimise light spill outside of the bridge footprint	n/a	Main works contractor
D-CH11	ES Chapter 6	No road lighting of the Scheme during operation except under Green Bridge Four and Countess Roundabout.	n/a	Main works contractor
D-CH12	ES Chapter 6	Existing lighting units at Countess Roundabout shall be replaced to minimise light spill.	n/a	Main works contractor
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.	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 headroom requirements of Highway Standard TD 27 (DMRB 6.1).	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

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
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	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
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.	Consultation with the members of HMAG and approval from The Authority 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.	Main works contractor
D-CH26	Stakeholder engagement	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.	Consultation with the members of HMAG and approval from The Authority on surfacing within the WHS prior to relevant works commencing.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		PRoW/PMA in WHS shall not have raised edgings, surface markings, lighting, benches, litter bins or other such street furniture.		
D-CH27	Stakeholder engagement	Any signage for the new PRoW/PMA in the WHS shall 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
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
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 practise.	The Authority approval of the LEMP.	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: a) BS 3936-1: Nursery stock. Specification for trees and shrubs;	The Authority approval of the AMS.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		b) BS 3936-4: Nursery stock. Specification for forest trees, poplars and willows; c) BS 3882: Specification for topsoil and requirements for use; d) BS 3998: Tree Work. Recommendations; e) BS 4428: Code of practice for general landscape operations (excluding hard surfaces) f) BS8545 Trees from nursery to independence in the landscape g) BS 5837: Trees in relation to design, demolition and construction; and h) BS 6031: Code of practice for earthworks. 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. The AMS shall also define: 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. b) The approach for working within RPAs, where this cannot reasonably be avoided required. c) The approach to inspecting, maintaining and managing trees and scrub to be retained. d) The approach for felling where otherwise not identified in the ES.		
MW-LAN4	n/a	**Planting and seeding:** 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. 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. **Early planting:** 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. **Maintenance:** 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. Any failures of landscape planting and seeding will be managed via the specification and works requirements. This will ensure annual replanting and reseeding works are undertaken (as required)	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)
		to 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 ~~aspect~~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.	Consultation with Wiltshire Council.	Main works contractor
BIODIVERSITY				
MW-BIO1	OEMP Table 3.2(a)	**Protected and notable species:** 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: a) ~~nesting~~breeding birds (~~non-Schedule 1~~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)
		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. 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. 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.		
MW-BIO2	Environmental Masterplan (Figure 2.5, ES)	**Habitat creation:** 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.	Successful delivery of habitats.	Main works contractor
MW-BIO3	ES Chapter 8, Section 8.8	**River Till ecological mitigation:** *Temporary bridge* 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 ~~banks.~~boundary of the River Till section of the River Avon SAC. The bridge shall be restricted to a ~~single lane carriageway, approximately~~maximum 6m ~~wide, to reduce the shading of the riparian habitats below.~~width and shall not be in the same location for a period of more than two years. *Vegetation* 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~~), including alignment of the haul route,~~) following construction. ~~On-going monitoring~~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. ~~*Low noise*~~*Piling* Non-impact piling ~~The main works contractor~~ shall~~, if piling~~ be used for the construction of both the temporary bridge and the permanent viaduct ~~piers is to be progressed when water is flowing within the River Till, use a low vibration and low noise piling method to reduce the vibration and noise impacts on the aquatic ecology within the river.~~.	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)
		Permanent foundation works There shall be no permanent foundation works within 8m of the boundary of the River Till section of the River Avon SAC. *Otters* 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 minimise the risk that invasive non-native species and diseases are spread as a consequence of the project. This will include, toolbox talks, exclusion zones, method statements on the cleaning of equipment (including boots) and vehicles on and off site and between sites, and audit compliance.	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 invasive species survey undertaken by the preliminary works contractor (ecology) and adhere to the associated ISMP (if relevant).	No recorded spread of invasive species.	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 chainages 4400m to 4800m.	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)
MW-BIO8	ES Chapter 8, Section 8.8	**Stone curlews:** 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 ~~450m~~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: a) the use of visual screening to block line of sight and, to avoid disturbance to stone curlew outside of the Scheme boundaries; and, b) 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. These measures should be employed prior to the breeding season (March to August) to deter prospecting pairs. Even with the use of these deterrent measures, there may still be a risk of stone curlews nesting within the ~~construction works area~~Scheme boundary. In the event that nesting stone curlews are found located within the ~~construction~~plots established as part of scheme, within the Scheme boundary, or are recorded within 500m of the works area ~~or~~(using binoculars from within ~~450m,~~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 ~~450m~~500m from the nest, depending on nesting location. This will be confirmed following confirmation from the ECoW. **Stone curlew monitoring**: ~~The contactors ECoW (or an~~An appropriate specialist~~),~~ shall undertake monitoring of stone curlews at the retained breeding plots within ~~450m~~500m of the Scheme (where pubic access is available / can be arranged) and ~~of~~at the newly created ~~compensation~~ nesting ~~plots.~~plot, associated with the mitigation defined in the ES (Chapter 8).	Implementation of the identified actions. Monitoring and reporting arrangements agreed between the ECoW and Natural England.	Main works contractor
MW-BIO9	ES Chapter 8, Section 8.8	**Badgers:** All retained badger setts within the Scheme boundary will be subject to regular monitoring and 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).	Implementation of working methods and monitoring regime.	Main works contractor
MW-BIO10	ES Chapter 8, Section 8.8	**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	Completion of surveys and subsequent interim reports of surveys.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		surveys will commence at the start of construction continue yearly throughout the construction phase. The landscape surveys shall continue through the construction phase. **Locations**: The crossing point surveys will be undertaken at the B3083 underbridge, ~~green bridge~~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.		
MW-BIO12	ES Chapter 8, Section 8.8	**Otter monitoring:** The ECoW (or an appropriate specialist) shall carry out monitoring of potential otter (*Lutra lutra*) 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	Application and return of Natural England EPS licence (if necessary).	Main works contractor
MW-BIO13	ES Chapter 8, Section 8.8	**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 ~~chalk~~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.	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	**Hedgerows:** The main works contractor shall seek to retain hedgerows throughout the Scheme where practicable. 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 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)
		the removal of the hedgerow. 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 ~~extents~~boundary of the River Till section of the River Avon SAC ~~or SSSI.~~	~~n/a~~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 ~~groundborne~~ground borne vibration. The main works contractor shall detail the application of BPM within the Noise and Vibration ~~ManagementPplan~~Management Plan **(**see MW-NOI3) ~~.~~ BPM should be included in the following order: a) control of noise and vibration at source - such as 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:** ~~Before works~~ Except in the case of an emergency, for any work required to be undertaken outside of the core ~~working~~ hours ~~and site specific working hours (as applicable) are undertaken which~~	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)
		~~comprise noise generating activities,~~set out in item MW-G12 (not including repairs or maintenance), the main works contractor shall ~~consider submission of~~make an application to ~~the~~ Wiltshire Council ~~(in a format as agreed) for~~ prior ~~consent~~ to undertaking the works under Section 61 of the ~~CoPA.~~ Control of Pollution Act 1974. 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.		
MW-NOI3	ES, Chapter 9, Section 9.8	**Noise and vibration management plan** 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: 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) or provision of temporary re-housing and to ensure such measures are in place as early as reasonably practicable; d) noise and vibration monitoring protocols including monitoring locations, stages during construction at which monitoring will be undertaken, and methods of publishing the results; e) details of inspection and maintenance schedules to be undertaken; f) processes to ensure ongoing compliance with all controls and consent for the works; and g) 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.	Main works contractor
MW-NOI4	n/a	**Noise insulation and temporary re-housing:** The main works contractor shall have a Noise Insulation and Temporary Rehousing Policy for the Scheme. The policy will set out all roles, responsibilities and actions required in respect of these measures. Notwithstanding the measures set out in this OEMP and any agreements with Wiltshire ~~County~~ Council, noise insulation or temporary re-housing will be offered to qualifying parties when: a) 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; b) the property complies with all other requirements of the Noise Insulation (Amendment) Regulations 1988; c) the property is lawfully occupied as a permanent dwelling; and	Implementation of, and adherence to, the policy.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		d) noise insulation does not already exist that is of an equivalent standard to that which would be allowed for under the Noise Insulation (Amendment) Regulations 1988. 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.		
MW-NOI5	ES, Chapter 9, Section 9.8	**Vibration** The main works contractor shall take into account the following guidance when establishing criteria, controls and working methods for vibration management: a) BS 5228 – 2 Code of practice for noise and vibration control on construction and open sites; 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 c) BS 7385 - 2 Evaluation and measurement for vibration in buildings – Part 2: Guide to damage levels from groundborne vibration *Protection of building occupants from disturbance* No start-up or shut down of vibratory plant e.g. rollers or compactors, within 50m of receptors. 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. *Protection of buildings from damage* 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 6 mms^{-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. 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: a) agree and consult with Wiltshire Council regarding monitoring for vibration and strain induced in the building during the works; b) consult occupiers of properties about: i. the surveys to be carried out and any consequent actions; and	Completion of appropriate assessments, identification of buildings / properties 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)
		ii. any additional reasonable and practicable mitigation to be provided for occupants; and c) carry out a condition survey before and after the relevant works. 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. *Stonehenge Cottages* 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. 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. *Protection of Sensitive Cultural Assets, excluding buildings* The main works contractor shall identify any potentially vibration sensitive cultural heritage assets based on the sensitivity of the assets and proximity to tunneling 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.		
MW-NOI6	ES, Chapter 9, Section 9.8	**Monitoring of noise and vibration:** 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). 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: 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. Proposals for all monitoring locations will be set out in the Noise and Vibration Management Plan. *Stonehenge Monument*	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)
		Vibration monitoring will be undertaken at the Stonehenge ~~Cottages commencing~~Monument, when the TBM is ~~approaching the cottages. Vibration monitoring will also be undertaken at Stonehenge when tunneling is ongoing at~~ within 250m of the ~~closest approach~~monument, the details of which will be set out in the Noise and Vibration Management Plan. *Stonehenge Cottages* 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.		
D-NOI1	ES Chapter 9, Appendix 9.~~3~~8	~~Thin road~~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.~~3~~8	1.8m high absorptive noise barriers along both the north and south ~~sides~~edges of the Countess Junction Flyover.	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.	**Contamination Risks:** 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 humans, e.g. construction workers, site visitors and nearby residents, resulting from the disturbance of contaminated land.	The Authority approval of the CEMP, Method Statements (including measures to protect construction workers), and implementation of the specified actions.	Main works contractor
MW-GEO2	ES Chapter 10, section 10.8.	**Groundwater contamination:** 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	Completion of appropriate GI works	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		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. 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.	and remediation measures.	
MW-GEO3	ES Chapter 10 Section 10.8.	**Soils Management Strategy:** The main works contractor shall produce a detailed Soils Management Strategy that will 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. 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.	The Authority approval of the Soils Management Strategy.	Main works contractor
MW-GEO5	ES Chapter 10 Section 10.8.	**Naturally occurring radiation of materials:** During the tunneling 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.	Provision of appropriate ventilation and monitoring for confined space working.	Main works contractor
MW-GEO6	ES Chapter 10, section 10.8.	**Hazardous substances:** The ~~contactor~~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 bunded. 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.	Agreement with water companies for the disposal of contaminated water.	Main works contractor
MW-GEO7	ES Chapter 10, section 10.8.	**Excavated materials management:** To form part of the Soils Management Strategy, the main works contractor shall develop a: a) Soils Handling Strategy, with reference to BS3882: 2015 Specification for Topsoil and the Construction Code of Practice for the Sustainable Use of Soils on Construction Site. This shall identify locations where archaeological in-situ preservation is required (refer to Cultural Heritage section) and consider areas to be returned to agricultural use; and 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.	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)
		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. 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. 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. The re-use of tunnel arisings (and other excavated materials) 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. 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.		
MW-GEO8	ES Chapter 10, Section 10.8.	**Construction on or adjacent to land affected by contamination** 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: a) wheel wash facilities; b) redundant services near potentially contaminated areas will be either removed or cut off and sealed; c) 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; d) prior to reuse of site-won materials, pre-classification testing of soils will be undertaken; e) imported fill materials will be required to meet soil and leachate acceptance criteria derived in the detailed design stage; 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	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)
		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; 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; 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 i) 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.		
MW-GEO10	ES Chapter 10, section 10.8.	**Underground gas monitoring:** 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. 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.	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 guidance.	Implementation of the identified actions.	Main works contractor
MW-WAT2	ES Chapter 11, Section 11.8.	**Water Management Plan:** The main works contractor shall produce a Water Management Plan to include identification of watercourses and aquifers, and taking into account of 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.	The Authority approval of the Water Management Plan.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
MW-WAT3	ES Chapter 11, Section 11.8	**Site drainage:** 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. 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. 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. The main works contractor shall incorporate the following measures during the construction works: a) all temporary land-take will include adequate areas of land set aside for robust control measures, for example sustainable drainage control; b) 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; c) water flows from sites will be limited during construction to existing runoff rates, unless otherwise agreed with the Environment Agency in accordance with relevant legislation; and d) 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	**Spill response:** The main works contractor shall include spill response procedures in the Emergency Preparedness and Response Plan (refer to MW-G20). 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. Environment Agency guidance on pollution incident response planning will be reflected in the emergency plan. 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). 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	Production of the Pollution Incident Control Plan, in consultation with the identified relevant organisations. The Authority approval of the Pollution Incident Control Plan.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		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.		
MW-WAT5	ES Chapter 11, section 11.8	**Pollution incident monitoring:** The contractor shall have in place effective arrangements to investigate and provide reports on any potential or actual significant pollution incidents, including: a) 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); b) contributory causes; c) adverse effects; d) measures implemented to mitigate adverse effects; and e) 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	**Protection of watercourses:** The ~~contactor~~contractor shall incorporate protection measures for works in or adjacent to watercourses in accordance with requirements set out by the Environment Agency. 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 Environment Agency. Sufficient allowance will be made for the Environment Agency 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 Environment Agency for works under, over or within a river channel and within 8m of a non-tidal river. 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: Control of water pollution from construction sites, and GPP 5: Works and maintenance on and near water. The main works contractor shall incorporate the following measures during the construction works: 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.	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)
MW-WAT7	ES Chapter 11, Section 11.8	**Control of pollution to waterbodies:** 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: 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). 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. 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. 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. The main works contractor shall incorporate the following measures during the construction works: 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 refueling 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 bowsers, 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;	~~Consultation with the Environment Agency~~Permit from Wiltshire Council where required (concrete batching plant). The Authority approval of the Water Management Plan.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		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 bowsers 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	**Dewatering and abstraction:** The main works contractor shall adopt construction techniques which minimise, so far as reasonably practicable, the need for and extent of dewatering and groundwater abstraction. 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.	Granting of any permits / consents (if required outside of the DCO).	Main works contractor
MW-WAT9	ES Chapter 11, Section 11.7	**Ground treatment:** 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-	Approval of materials to be used from the Environment Agency.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		passages). The main works contractor will maintain a list of the products authorised for use and undertake appropriate monitoring of groundwater quality. 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.		
MW-WAT10	ES Chapter 11, section 11.7	**Groundwater Management Plan:** The main works contractor shall develop a Scheme-wide Groundwater Management Plan~~),~~ outlining how groundwater resources are to be protected in a consistent and integrated manner. The Plan shall be prepared in consultation with the Environment Agency and address: a) Potential effects on groundwater (resources and quality) that fall outside other regulations such as the Environmental Permitting Regulations. b) An update to the Groundwater Risk Assessment for the final design and construction plan. c) The groundwater level and water quality monitoring and reporting programme. d) Development of baseline groundwater conditions and derivation of trigger levels and action levels/Mitigation/action plans for exceedances and accidents/incidents.	The Authority approval of the Groundwater Management Plan.	Main works contractor
MW-WAT11	ES Chapter 11, section 11.7	**Management of impact on abstraction boreholes:** 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. 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 Environment Agency will also be consulted through the permitting of discharges for the dewatering schemes required. The Environmental Permitting (England and Wales) Regulations 2016, as amended, apply to discharges of water to ground and surface waters that are controlled waters. The main works contractor shall, to limit and manage residual risk from groundwater pollution at abstraction points, apply the following precautionary actions, where applicable: a) 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. b) the main works contractor will arrange any monitoring of water levels in areas where dewatering of the Chalk aquifer is required; and	Consultation with abstractors / licence holders and the Environment Agency. Granting of any permits / consents (if required outside of the DCO). Groundwater monitoring and reporting in accordance with the Groundwater Management Plan.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		c) 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. *Management of impact on Environment Agency monitoring borehole* 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.		
MW-WAT12	ES Chapter 11, section 11.8	**Flood Risk Management Plan:** 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: a) any areas within Flood Zone 3, areas susceptible to groundwater flooding, and other flood risk sources, such as sewer flooding; b) any applications made, or likely to be made, for an environmental permit, where required in relation to flood defence, for temporary and permanent works and the status of the works; c) any specific requirements or conditions of the approval that will be obtained from the relevant consenting bodies; d) any flood risk management or mitigation measures implemented, or to be implemented, in support of temporary and permanent works proposals; and e) a statement on the cumulative flood risk impact of temporary and permanent works The plan shall be developed following consultation with the Environment Agency.	The Authority approval of the Flood Risk Management Plan.	Main works contractor
MW-WAT13	ES Chapter 11, section 11.8	**Flood Risk – general provisions:** The main works contractor shall, where reasonably practicable, minimise works within the floodplain. Temporary compounds and haul routes will be located outside of EA Flood Zones 2 and 3 and primary overland flow paths wherever reasonably practicable. 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. The main works contractor shall ensure that flood risk is managed safely throughout the construction and implementation period, and that all designs do not cause increased risk levels from those assessed in the Flood Risk Assessment (FRA) included in the ES (Appendix 11.5), and include the provision of a safe refuge during a flood event.	Implementation of stated measures.	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 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 FRA. 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 details provided within the FRA. 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. If this is not possible, other appropriate protection measures will be incorporated. 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.		
MW-WA14	DCO Requirement 10	**Surface water drainage:** 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.	Works undertaken in accordance with Requirement 10.	Main works contractor
MW-WAT15	ES Chapter 11, Section 11.8	**Monitoring of water resources:** *General* The main works contractor shall carry out regular monitoring to identify: a) pollution risks that are unacceptably high; b) spillages and leakages; c) non-compliance with the CEMP; and d) suspected pollution incidences. 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. 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. *Groundwater* 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	Development of the identified monitoring requirements in consultation with the Environment Agency and other relevant bodies.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		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.		
MATERIALS				
MW-MAT1	ES Chapter 12, Section 12.8	**Site Waste Management Plan (SWMP):** The main works contractor shall, in accordance with industry good practice and with consideration of IAN 183/14, develop and implement a SWMP to: a) identify and record the types, quantities and destination of waste arisings from the Scheme in the SWMP; and b) report this information to The Authority on a periodic basis; and update the SWMP as appropriate. c) 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.	Main works contractor
MW-MAT2	ES Chapter 12, Section 12.8	**Materials Management Plan (MMP):** The main works contractor shall prepare a MMP in accordance with the CL:AIRE Definition of Waste: Code of Practice.	The Authority approval of the MMP.	Main works contractor
MW-MAT3	ES Chapter 12, Section 12.8	**Recovery target:** The main works contractor shall seek to achieve a recovery rate of 70% for construction and demolition waste (excluding excavated soil and stones).	Recovery of 70% of construction and demolition waste	Main works contractor
MW-MAT4	ES Chapter 12, Section 12.8	**Secondary and recycled aggregates target:** The main works contractor shall seek to achieve a rate of 22% use of secondary and recycled aggregates, for those applications for which substitution of primary aggregates is technically and economically feasible.	22% use of use of secondary and recycled aggregates (where feasible)	Main works contractor
MW-MAT5	~~ES~~ 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				

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
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) locations of potential carcass burial sites	Implementation of appropriate measures.	Main works contractor
MW-COM4	n/a	**Restoration of agricultural land and aftercare:** 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 with the landowner/tenant and the main works contractor including inspection of works where applicable and in accordance with requisite site health and safety procedures.	Effective communication with landowners / tenants and the production of the SMS and adherence to measures within.	Main works contractor
MW-COM5	n/a	**Monitoring of agricultural land:** The main works ~~contractor~~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.	Implementation of the specified actions.	Main works contractor
MW-COM6	Statement of Common Ground	**Private water supplies:** 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		

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		water (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. 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 (at the contractor's option) of a permanent means of alternative supply of water		
MW-COM7	Statement of Common Ground	**Agricultural land drainage:** 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 on completion. 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.		
MW-COM8		**Record of Condition survey** The main works contractor shall undertake a Record of Condition survey to include the following: a) Existing crop regimes; b) The position and condition of existing field boundaries; c) The condition of existing access arrangements; d) The location and type of existing private water supplies; e) The yield of crops; f) The quality of grazing land; and g) The existing weed burden. Photographs and section drawings shall be included in the Record of Condition and it shall be provided to the landowner and occupier.		
TRAFFIC MANAGEMENT				
MW-TRA1	n/a	**Traffic Management Measures (general):** 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 ~~may~~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. Temporary signs erected during the works will be consistent with the Traffic Signs Manual: Chapter 8: ~~Traffic Safety Measures and Signs for Road Works and Temporary Situations.~~ Traffic signs ~~will~~for roadworks and other temporary situations shall comply with the Traffic Signs Regulations and	Provision of appropriate traffic management measures.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		General Directions and will be located where they are clearly visible to road users and cause minimum disruption.		
MW-TRA2	DCO Requirement 9	**Traffic Management Plan (TMP):** 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. The main works contractor shall consult with the following agencies / organisations when developing the TMP: 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. The TMP shall include: 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 or adjacent to 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; f) a plan of the haul routes to be used; ~~f)~~g) procedures for informing local communities of all traffic management schemes in advance ~~and~~of the works; ~~g)~~h) measures to be implemented to reduce construction traffic impacts or impacts associated with over-parking by site construction workers on residential streets; ~~h)~~i) 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; ~~i)~~j) a register of applications for consents associated with temporary traffic management measures; ~~and~~ k) an organogram identifying the named Traffic Control Officer and their lines of reporting.~~;~~ and	Works undertaken in accordance with Requirement 9. The Authority approval of the TMP.	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		~~j)~~l) procedures to be followed in relation to the movement of abnormal loads whether related or not to the works		
MW-TRA3	n/a	**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: 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 ~~and~~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	**Site Access Plan~~:~~ (SAP):** The main works contractor shall develop a ~~Site Access Plan~~SAP (to be included within the TMP identifying site access and egress routes 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 for the removal of such access and egress routes when no longer required for the scheme works	The Authority approval of Site Access Plan.	Main works contractor
MW-TRA5	n/a	**Site Travel Plan~~:~~ (STP):** The main works contractor shall develop a ~~Site Travel Plan~~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-contractors will be provided with copies throughout the duration of the works. Access routes for construction traffic ~~will~~shall be via special and trunk road network(s) and ~~main~~principal roads on the ~~local~~ road network ~~unless it is considered~~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 ~~other local roads to be used.~~ the minimum time necessary. 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 ~~will~~shall be kept informed in advance of the timing of the works ~~in advance~~.	The Authority approval of the Site Travel Plan. The Authority approval of local road use (if required)	Main works contractor
MW-TRA6	n/a	**Traffic management measures:**	Consultation with the relevant bodies and	Main works contractor

Ref.	Source Ref.	Action / commitment (including specific location and any monitoring required)	Reporting criteria	Responsible person(s)
		Where deemed necessary, following consultation with Wiltshire Council and the emergency services, the main works contractor shall; a) provide speed detection cameras at temporary traffic management schemes and undertake road safety audits in accordance with DMRB; b) install CCTV cameras at agreed locations to monitor the traffic management schemes; and c) during construction on the line of the existing trunk road, operate a vehicle recovery system to minimise the impact of breakdowns or ~~accidents~~collisions on the flow of traffic.	implementation of actions (if required).	
MW-TRA7	n/a	~~Haul~~Site haul routes: The main works contractor shall provide haul routes through the works for use by construction vehicles. 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.	Provision of haul routes within the works.	Main works contractor
MW-TRA8	n/a	**Abnormal loads:** 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. Movement of abnormal loads is controlled by MW-~~G17~~G15.	Development of the TMP in consultation with the identified agencies and organisations.	Main works contractor
MW-TRA9	n/a	**Temporary roads / accesses:** 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. 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 reinstated when their use in connection with the networks has finished.	The provision of suitable temporary roads and application / granting of required consents.	Main works contractor
MW-TRA10	n/a	**Mitigation for traffic management measures:** 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 particular needs of groups with protected characteristics as defined under the Equality Act 2010. 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.	Provision 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-TRA11	n/a	**Monitoring of traffic management measures, traffic flows, and public services:** The main works contractor shall outline a monitoring regime within the TMP, to include the below points: a) 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. b) 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 as a consequence of service alterations. c) The main works contractor ~~will~~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	**Traffic Management during Tunnel Closures:** 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: a) Procedures to be followed for the planned closure of a single bore, including use of temporary signing, and advance information proposals. b) 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: i. method of control of access to the eastbound or westbound or both merge slips at Longbarrow or Countess junctions respectively. ii. Signage to be employed on the approved diversion route. 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 in the WHS

4.1 Introduction

4.1.1 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 Group[7] (HMAG), on the Scheme for which it seeks development consent.

4.1.2 This section of the OEMP sets out how The Authority's will involve key stakeholders in the detailed design of certain key aspects of the Scheme and, in Table 4.1, identifies key design principles which will inform the detailed design of the Scheme.

4.1.3 The need to provide that process must be balanced against The Authority's ability to deliver the Scheme, once consent is granted.

4.1.4 There are three limbs to The Authority's approach to the development of the Scheme's detailed design:

a) Design commitments fixed in Design Commitments set out in the REAC Tables 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.

4.2 Design commitments

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

4.2.2 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.

[7] Wiltshire Council Archaeological Service, National Trust, Historic England, English Heritage

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 have an acknowledged concern and which do not impede The Authority's ability to deliver the Scheme.

4.3.2 Design Principles describe the common general overall goal or objective but are not intended to prescribe the precise means of achieving it. It is intended that these will be accompanied by guidance that outlines appropriate ways of achieving the goal. This guidance will take the form of:

a) material palettes;

b) examples of design typologies that are agreed to be inappropriate; and

c) examples of design typologies that are agreed to be appropriate.

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 consultation

4.4.1 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

4.4.2 The Authority will establish a Stakeholder Consultation Group (SCG) that it will consult on in relation to the specific areas of the detailed design as it is being developed. The SCG will be chaired and 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

4.4.3 The Authority, and/or its Contractor once appointed, will consult the SCG 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 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.

4.4.4 Outside of the World Heritage Site, The Authority, and/or its Contractor once appointed, will consult the SCG on the external appearance of the following:

a) Signing and lighting at the new Longbarrow junction (Work No.1C(ii)); and

b) Signing and lighting at the Countess junction (Work No.1H(iv)).

4.4.5 Collectively, the aspects of the Scheme described in paragraphs 4.4.3 and 4.4.4 are referred to as the “Detailed Design” in this section of the OEMP.

How they will be consulted

4.4.6 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 SCG will be consulted on each part of the Detailed Design prior to the commencement of construction of that part.

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

4.4.8 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

4.4.9 The SCG would meet as required at 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.

How the Applicant demonstrates its consideration of that consultation

4.4.10 The Authority, and/or its Contractor once appointed, will provide the SCG with documentation sufficient to understand the relevant part of the Detailed Design, including plans, sections and details of materials and finishes (Consultation Information).

4.4.11 The SCG will receive the Consultation Information no less than 10 working days prior to the meeting of SCG at which the Consultation Information will be considered.

4.4.12 The Authority is obliged to take into consideration the views of expressed by the SCG on the Detailed Design only where it is appropriate, reasonable and feasible to do so, taking into account considerations including but not limited to, cost and engineering practicality.

How disputes will be addressed

4.4.13 The Authority envisages that if it was not possible for the SCG 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 Chief Executive level, and in the case of The Authority, to its Chief Engineer, with a view to resolving the disagreement.

4.4.14 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.

4.4.15 Following a meeting of the SCG 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

4.4.16 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 SCG insofar as it relates to the Consultation Information;

c) The summary required by paragraph 4.4.16.

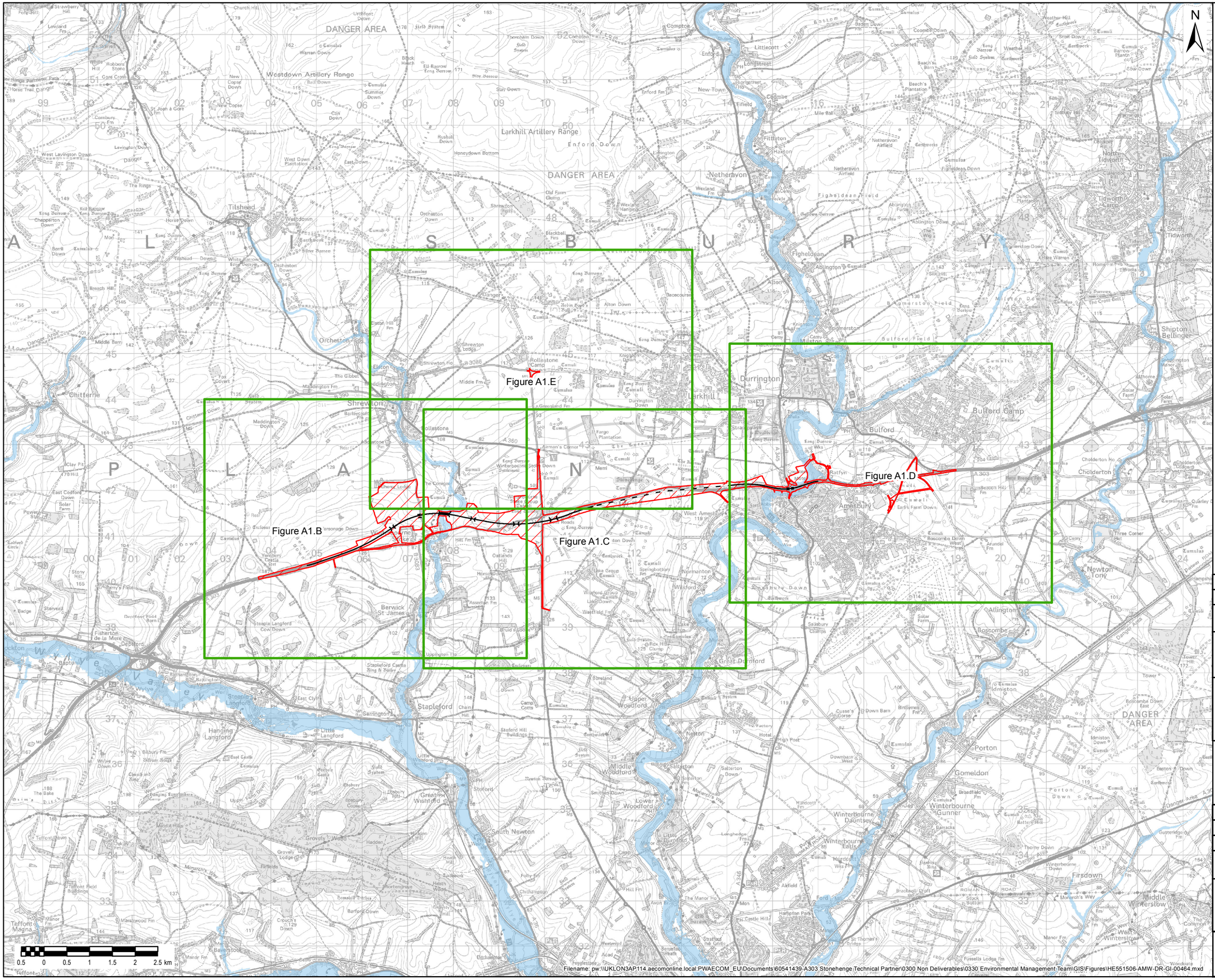
Table 4.1 Design development principles

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 into consideration the aims and policies of the WHS Management Plan.		
Signage and lighting			
P-SL01	Minimal lighting and signage in areas bordering the WHS.		
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 practically possible.		
Portals, retaining walls and other structures			
P-PWS01	Any new infrastructure (and associated elements) within the WHS to be designed to be sympathetic with the surrounding landscape.		
P-PWS02	All scheme components to use a common materials palette. The colours to be in keeping with the surrounding landscape.		
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.		
PRoWs			
P-PRoW1	Public Rights of Way to have a bound surface where appropriate to their use. 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. Appropriately vegetated verges to be provided between the surfaced area and adjacent land boundaries.		
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.		
P-PRoW3	No lighting on any PRoW within the Scheme.		
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 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 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. Equestrian gates to be provided on bridleways, while on footpaths, pedestrian gates would be installed.		

Ref.	Principle	Reporting criteria	Responsible person(s)
Landscape and earthworks			
P-LE01	Planting strategy to have regard to the objectives of the WHS Management Plan, where this does not conflict with ecological or visual mitigation		
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.		
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.		

45 Annexes

Annex A.1 – Environmental Constraints Plan



NOTES / LEGEND

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

Revision Details	By / Check	Date	Suffix

Purpose of issue: DCO APPLICATION

Client: Highways England

Working on behalf of: highways england

Project Title: A303 AMESBURY TO BERWICK DOWN

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

Designed	Drawn	Checked	Approved	Date
HS	TD	CC	WB	05/10/18

Internal Project No. 60541200

Scale @ A3: 1:75,000 | Zone: SW

Highways England
Temple Quay House
2 The Square, Temple Quay
Bristol
BS1 6HA

Drawing Number: Highways England PIN	Originator	Volume	Rev
HE551506	AMW	GEN	01
SCHEME WIDE	DR	GI	00464
Location	Type	Role	Number

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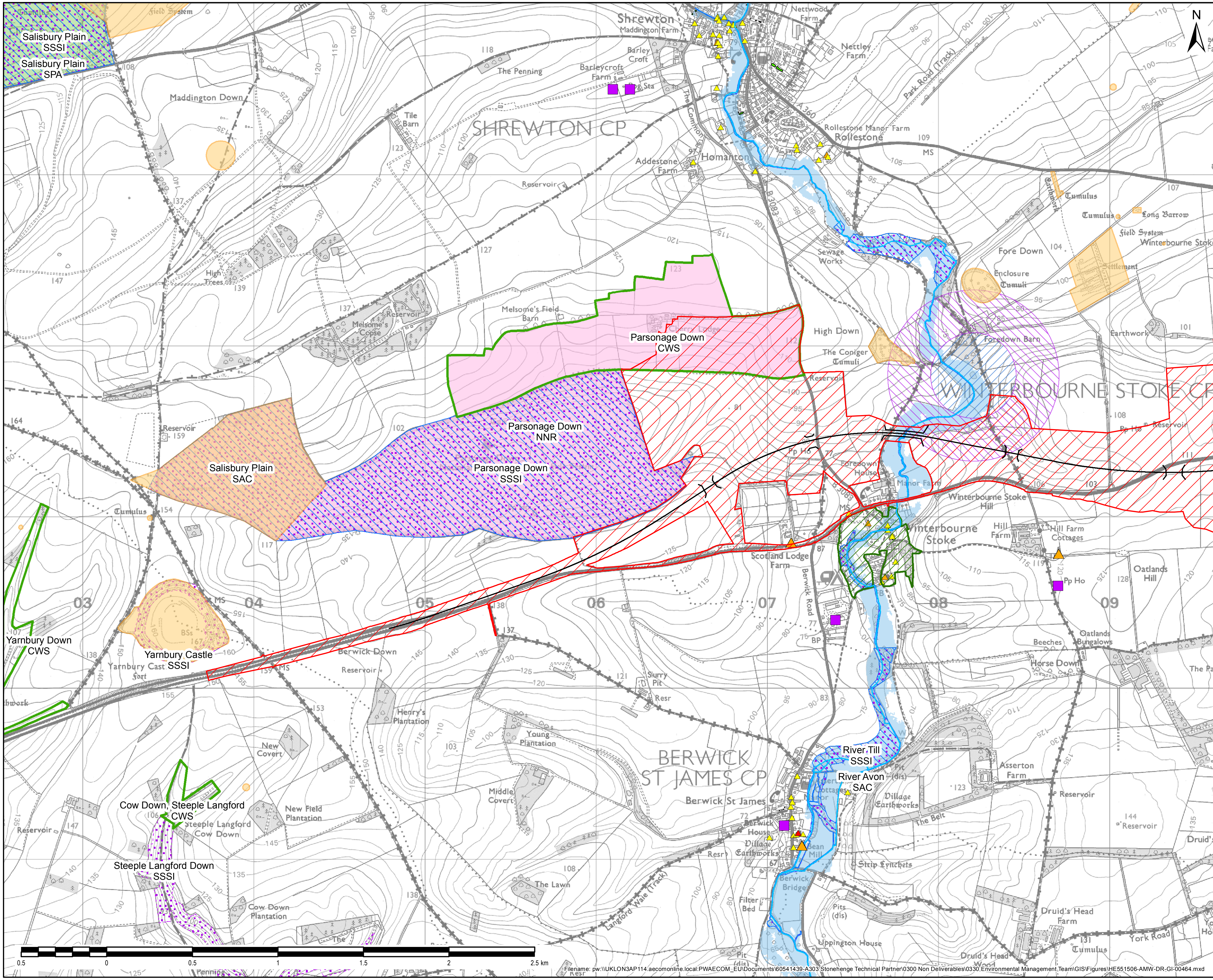

NOTES / LEGEND

- 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

Revision Details	By / Check	Date	Suffix

Purpose of issue: DCO APPLICATION

Client: Highways England — Working on behalf of highways england

Project Title: A303 AMESBURY TO BERWICK DOWN

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

Designed	Drawn	Checked	Approved	Date
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Highways England
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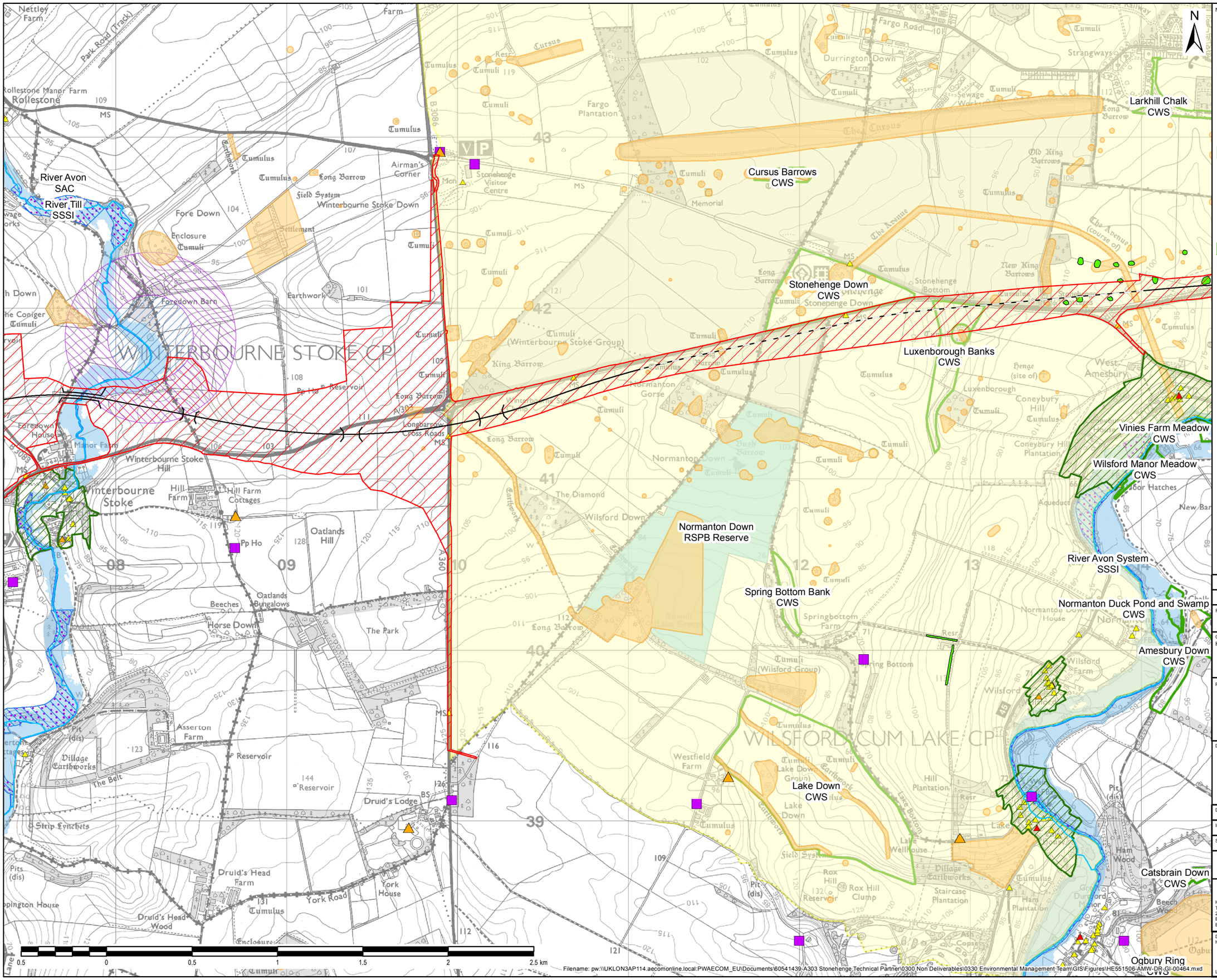
Drawing Number				
Highways England PIN	Originator	Volume		Rev
HE551506	AMW	GEN		01
SCHEME WIDE	DR	GI	00464	
Location	Type	Role	Number	



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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
🟨	World Heritage Site
□	County Wildlife Site (CWS)
▨	Special Area of Conservation (SAC)
▨	Site of Special Scientific Interest (SSSI)
■	RSPB Reserve
▨	GCN Pond - 250m Buffer
▨	GCN Pond - 500m Buffer
■	Risk of Flooding from Rivers and Sea

Revision Details	By / Check	Date	Suffix

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.1C
ENVIRONMENTAL CONSTRAINTS
PLAN

Designed	Drawn	Checked	Approved	Date
HS	TD	CC	WB	05/10/18

Internal Project No. 60541200

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Zone SW

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Drawing Number
Highways England PIN | Originator | Volume
HE551506 AMW GEN
SCHEME WIDE DR GI 00464
Location | Type | Role | Number

Rev
01

Durrington Meadows CWS
Woodhenge Verge CWS
Larkhill Chalk CWS
River Avon SAC
River Avon System SSI
Countess Farm Swamp CWS
Countess Cutting CWS
Vinies Farm Meadow CWS
Normanton Duck Pond and Swamp CWS
Amesbury Down CWS
Sheep Bridge Pond CWS
Salisbury Plain SAC
Salisbury Plain SPA
Salisbury Plain SSSI
Hills Copse CWS
Boscombe Down Railway Line CWS
MANAGED ACCESS www.access.mod.uk
BULFORD CP
AMESBURY CP

0.5 0 0.5 1 1.5 2 2.5 km

NOTES / LEGEND

- Indicative centreline
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- Special Area of Conservation (SAC)
- Site of Special Scientific Interest (SSSI)
- Special Protection Area (SPA)
- Risk of Flooding from Rivers and Sea

Revision Details	By	Check	Date	Suffix

Purpose of issue: DCO APPLICATION

Client: Highways England

Working on behalf of: highways england

Project Title: A303 AMESBURY TO BERWICK DOWN

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

Designed	Drawn	Checked	Approved	Date
HS	TD	CC	WB	05/10/18

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Scale @ A3: 1:20,000 Zone: SW

Highways England
Temple Quay House
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Drawing Number Highways England PIN	Originator	Volume	Location	Type	Role	Number	Rev
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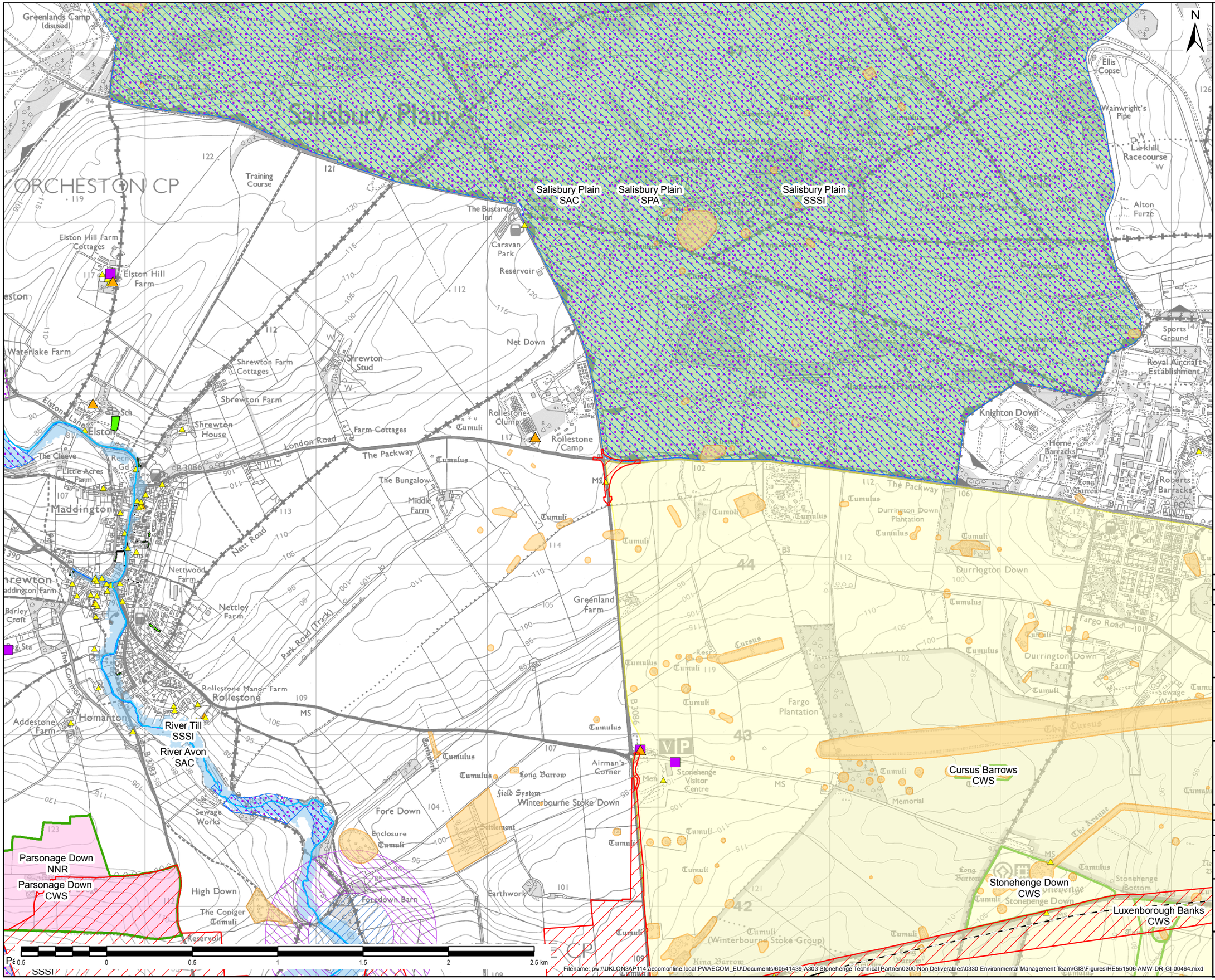

NOTES / LEGEND

- Indicative centreline
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- World Heritage Site
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- National Nature Reserve (NNR)
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- GCN Pond - 500m Buffer
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Revision Details	By / Check	Date	Suffix

Purpose of issue: DCO APPLICATION

Client: Highways England

Working on behalf of: highways england

Project Title: A303 AMESBURY TO BERWICK DOWN

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

Designed	Drawn	Checked	Approved	Date
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Internal Project No. 60541200

Scale @ A3: 1:20,000 Zone: SW

Highways England
Temple Quay House
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BS1 6HA

Drawing Number	Originator	Volume	Rev
HE551506	AMW	GEN	01
SCHEME WIDE	DR	GI	00464
Location	Type	Role	Number

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Annex A.2 –Outline Archaeological Mitigation Strategy

A303 Amesbury to Berwick Down

TR010025

Volume 6

6.3 Environmental Statement Appendices

Appendix 6.11: Outline Archaeological Mitigation Strategy

APFP Regulation 5(2)(a)

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

October 2018

Table of Contents

Table of Figures

Tables

1 Introduction

1.1 Scope of Archaeological Mitigation

1.1.1 A staged programme of archaeological mitigation will be implemented in accordance with advice in DMRB Volume 11 Section 3 Part 2 (Highways England, 2007), and Volume 10 Section 6 Part 1 (Highways England, 2001) in advance of scheme construction. The programme will comprise measures to protect archaeological remains *in situ* and/or to record archaeological remains through investigation, prior to the construction of the Scheme.

1.1.2 This document provides an Outline Archaeological Mitigation Strategy (OAMS) for the scheme, to support the ES, HIA and the DCO application. The OAMS presents a draft Strategy as the basis for extensive consultation with members of the Heritage Monitoring Advisory Group (HMAG) (within the WHS) and Wiltshire Council Archaeology Service (WCAS) (outside the WHS) to develop a final Strategy.

1.1.3 The final strategy will take the form of a Detailed Archaeological Mitigation Strategy (DAMS) and accompanying Overarching Written Scheme of Investigation (OWSI). These will set out the scope, guiding principles and methods for the planning and implementation of essential archaeological mitigation. For each site or area of archaeological interest a Site Specific Written Scheme(s) of Investigation (SSWSI) will be prepared that outlines specific measures that would apply to particular pieces of archaeological fieldwork, to be carried out as part of the programme of archaeological mitigation works.

1.1.4 The archaeological mitigation programme will be conducted with full consideration of the Research Framework for the Stonehenge & Avebury and Associated Sites WHS (Leivers and Powell, 2016); and where appropriate the South West Archaeological Research Framework (Grove and Croft, 2012). Each SSWSI shall ensure that research strategies become a visible theme running through the archaeological mitigation and the subsequent reporting stage to demonstrate that they have been the basis for decision making, sample selection and justification for all stages of archaeological mitigation and reporting.

1.2 Design and Management of Archaeological Mitigation

1.2.1 The DAMS, OWSI and SSWSIs will be prepared and will be agreed in consultation with HMAG (inside the WHS) and WCAS (outside the WHS) prior to preliminary works commencing on site. The advice of the Scientific Committee will also be sought and incorporated into the design of the reports, where it is appropriate and relevant.

1.2.2 The archaeological fieldwork will be closely monitored to ensure that it is being carried out to the required standard and that it will achieve the desired aims and objectives. HMAG will be invited to attend site meetings to review the progress and results of the fieldwork within the WHS, and WCAS outside the WHS. These meetings will also be used to sign-off sites to construction. In addition,

site visits will also be arranged in order for the Scientific Committee to view the archaeological investigations in progress, where appropriate and feasible.

1.2.3 It is anticipated that the majority of the archaeological fieldwork will be undertaken during the preliminary works stage of the construction programme as Advanced Archaeological Works. However, where site conditions prevent archaeological fieldwork at the preliminary works stage, archaeological fieldwork may be required during the construction stage. It is anticipated that such circumstances will generally be limited to minor works, e.g. within the existing highway boundary.

1.2.4 In order to minimise the risk of unexpected finds being made during the course of the Main Contractor's works, Further Archaeological Design (FAD) documents will be prepared, if required, as an addendum to a SSWSI, in consultation with HMAG and WCAS.

1.2.5 The archaeological mitigation works and reporting will be undertaken by a suitably qualified, experienced and capable Archaeological Contractor.

1.2.6 During both the preliminary works stage and the construction stage, procedures will be adopted in the Outline Environmental Management Plan (OEMP) and Heritage Management Plan (HMP) to ensure that sites and areas of archaeological interest are protected. Toolbox talks would be undertaken when necessary to inform construction supervision staff and site operatives of sensitive areas.

1.2.7 In areas where archaeology or heritage assets are to be preserved *in situ* (protected by temporary perimeter fencing, or beneath fill materials), method statements will be put in place at the start of the construction programme that describes specific protection measures to be applied to the site or area of interest, and following procedures outlined in the OEMP and the HMP. The method statements will be subject to approval by HMAG (for sites within the WHS) and WCAS (for sites outside the WHS). The method statement will ensure that sites / areas would be marked out, fenced and protected prior to construction. Measures will be put in place to avoid rutting or the compaction of soft ground unless adequate protection is provided (vehicles would be restricted or prohibited from traversing sensitive areas prior to fencing, the laying of a protective membrane and fill deposits / vehicle running surface, as appropriate).

1.2.8 The method statement(s) will set out a suitable methodology for filling areas without disturbing or impacting sensitive archaeological remains. Toolbox talks would be undertaken to inform construction supervision staff and site operatives of procedures within these areas.

1.2.9 An allowance for a minimum period of time to deal properly with any unexpected finds during the construction process will be agreed and recorded in the Construction Environmental Management Plan (CEMP) prepared by the Main Contractor for the construction stage.

2 Archaeological Mitigation Measures

2.1 Proposed Recording Methods and Descriptions

2.1.1 The following archaeological mitigation actions are proposed; the application of these will be determined in consultation with HMAG (within the WHS) and WCAS (outside the WHS). Relevant descriptions of proposed mitigation actions are presented in Table 2.1 below.

Table 2.1: Archaeological Mitigation Measures

Recording Method	Description
Detailed Excavation (preliminary works stage)	A programme of controlled, intrusive fieldwork with defined objectives which maps, examines, records and interprets archaeological remains at a site or within a specified area. The records made and the objects and samples gathered during the fieldwork are combined and studied (assessed and if appropriate analysed) and the results published in detail appropriate to the project design. Detailed Excavation, which may incorporate extensive sample excavation ('strip and record' or 'strip, map and sample'), trench mitigation or test pit mitigation (with soil sieving and artefact recovery), would be undertaken where significant archaeological remains are either known from assessment or evaluation works. Detailed excavation may be targeted at specific sites, areas of interest or a sample range of locations. The extent of the investigation and the excavation strategy for each detailed excavation area would be agreed in consultation with HMAG or WCAS, as appropriate.
Fieldwalking (Preliminary works stage)	A non-intrusive archaeological survey technique used to record the position and distribution of artefacts recovered from a rapid survey of the ploughed surface of a field(s). To be undertaken in areas where ther will be ground disturbance or areas of landscape fill, where conditions did not allow for this to take place prior to public examination.
Trial Trench Evaluation (Preliminary works stage)	In the few small areas where access has been denied prior to public examination - a targeted or sample-based mechanical or hand excavated trench based investigation to record the extent of archaeological remains identified through non-intrusive survey and to inform decision making on further mitigation recording that may be appropriate.
Archaeological Monitoring and Recording (construction stage)	A programme of observation, investigation and recording of archaeological remains undertaken in specific areas where the presence of or moderate potential for archaeological remains has been demonstrated or can be predicted, but where detailed investigation prior to the main construction programme is unfeasible due to safety or logistical considerations, or undesirable due to environmental or engineering constraints. The contractors preferred method of working would be controlled as necessary to allow archaeological recording to take place to the required standard.
Geo-archaeological investigation (preliminary and construction stages)	A programme of sample recovery and assessment / analysis undertaken to investigate palaeo-environmental conditions and soil sediment development that may be relevant to the research of archaeological sites or remains found within the vicinity. Achieved through trial pit excavations or other soil

Recording Method	Description
	sample retrieval methods (such as auger or boreholes).
Archaeological Topographic Survey (preliminary and construction stages)	An archaeological site survey undertaken to record the shape and topography of the ground surface and any relevant components. It would include both a drawn and written record, and depending upon the level of detail that is required it could also include a photographic record. Typically it would be applied to both archaeological remains and features that contribute to the historic landscape character.
Archaeological Photographic Recording (preliminary works stage)	A photographic record combined with a written description of a heritage asset that records its current condition, character and type. Depending upon the level of detail required the photographs may also record views to and from the asset so that there is a record of its setting.
Preservation *in situ*	An area of development that has been excluded to conserve archaeological remains, thereby preserving it for later generations. Measures for preservation *in situ* would include protective fencing, burying / sealing remains beneath fill material to ensure that they are not disturbed (including use of a protective barrier membrane between the existing ground surface and the fill, and control measures for plant movements at construction).

2.1.2 Following completion of archaeological recording work on site, a programme of post-excavation assessment, analysis and reporting would be undertaken, including publication of the results and deposition of the archive in an approved local museum.

2.1.3 The scope and relevant methods applicable to the above mitigation measures are outlined in more detail in section 3 below.

2.2 Proposed Archaeological Mitigation Areas

2.2.1 The location and extent of all areas proposed for archaeological mitigation will be determined in consultation with HMAG (within the WHS) and WCAS (outside the WHS). Areas proposed for archaeological mitigation, based on the baseline assessment and archaeological evaluation results, are identified in Table 2.2 (proposed archaeological preservation *in situ* areas), Table 2.3 (proposed archaeological investigation areas) below, and the proposed areas are illustrated on Figure 1. A definitive final list of sites for archaeological mitigation will be agreed with HMAG (within the WHS) and WCAS (outside the WHS) and the area and methods refined, following completion of the archaeological evaluation programme.

Table 2.2: Proposed archaeological preservation *in situ* sites / action areas

Site / Action Area no.	Section	Site / asset name	UID / NHLE or WSHER ref Designation	Mitigation
1	1	Milestone on track, south of A303, close to Yarnbury Camp.	UID 6001 / NHLE 1005621 Scheduled Monument	Archaeological Photographic Recording; and protective fencing that incorporates a 10m buffer around the scheduled area.
2	1, 2	Fields systems east of Yarnbury Camp which are located either side of the A303; and an undated oval enclosure.	UID 1004.01 - MWI6094, MWI6232, MWI6930, MWI6943, MWI6994, MWI6996, MWI6997, MWI7001, MWI7095, MWI7112, MWI7130, MWI7235, MWI7267 UID 1006 - MWI7223, MWI7261	No dig solution for the construction of cycleways and a PMA between Scotland Lodge and Yarnbury Camp, where feasible.
6	2	Area of field systems and dispersed features adjacent to Bronze Age barrows (see 7 below) (land required for landscape and biodiversity mitigation)	UID 1004.01 - MWI6094, MWI6232, MWI6930, MWI6943, MWI6994, MWI6996, MWI6997, MWI7001, MWI7095, MWI7112, MWI7130, MWI7235, MWI7267	No-dig solution for PMA, bat mitigation bund and other landscaping, where feasible
7	2	Non-designated barrows east of Scotland Lodge Iron Age site	UID 2035.01 / MWI6396 UID 2035.02 / MWI7206	Protective fencing that incorporates a 10m buffer around the barrows.
8	2	Three non-designated barrows dispersed across a hill slope in an area required for soil storage (Parsonage Down excavated material deposition area).	2030.01 / MWI7134 2030.02 / MWI7200 2030.03 / MWI7160	Protective fencing that incorporates a 10m buffer around the barrows.
9	2	Possible settlement associated with an Iron Age / Romano-British enclosure that contains internal features (Parsonage Down excavated material deposition area).	UID 1004.01 / MWI7130 UID 2039 / MWI7098	Protective fencing that incorporates a 10m buffer around the enclosure.
10	2	Dispersed unenclosed settlement of possible Bronze Age date located on slightly higher ground overlooking dry valley to the southwest in an area required for soil storage (Parsonage Down excavated material).	UID 2036 / MWI74874 UID 2038 / MWI74875).	Preservation *in situ* in excavated material deposition area, where feasible.

Site / Action Area no.	Section	Site / asset name	UID / NHLE or WSHER ref Designation	Mitigation
11	2	Linear boundary, extensive field systems, enclosures and possible trackways of possible Iron Age / Romano-British date in an area required for soil storage (Parsonage Down excavated material)	UID 1005 / MWI7159, MWI7245, MWI7262; UID 1004.01 - MWI6094, MWI6232, MWI6930, MWI6943, MWI6994, MWI6996, MWI6997, MWI7001, MWI7095, MWI7112, MWI7130, MWI7235, MWI7267	Preservation *in situ* in excavated material deposition area, where feasible.
14	2	Non-designated barrows on the top of Winterbourne Stoke Hill.	UID 2054.01 / MWI7208 UID 2054.02 / MWI7209 UID 2054.03 / MWI7207	Protective fencing that incorporates a 10m buffer around the barrows. If subject to landscaping, appropriate protection using protective barrier membrane, suitable fill and vehicle control measures.
17	2	Non-designated barrows in two areas north of the A303 and west of the A360: barrow within Winterbourne Stoke Compound Areas and barrow just to the east of the A360 north link road and south east of the A360.	UID 2077 / MWI6402 UID 2148 / MWI75991 UID 2151 / MWI6403	Protective fencing that incorporates a 10m buffer around the barrows.
18	2	Barrow and enclosure west of current Longbarrow roundabout; barrow southwest of current Longbarrow roundabout.	UID 2001 / NHLE 1011048 UID 2002 / NHLE 1011045 Scheduled Monuments	Protective fencing that incorporates a 10m buffer around the scheduled area.
20	2	Bronze Age land boundary (Wessex Linear) crossing Winterbourne Stoke Compound Area.	UID 2014.02 / MWI6406 (land boundary) UID 2076 & 2078 / MWI7201 (settlement evidence)	Appropriate protection using protective barrier membrane, suitable fill and vehicle control measures.
21	2	Bronze Age land boundary (Wessex Linear) – western approaches.	UID 2014.01 NHLE 1010837 Scheduled Monument	Archaeological Photographic Recording; and protective fencing, that incorporates a 10m buffer, where feasible, around the scheduled area
22	2	Milestone along A360.	UID 6027 NHLE 1130972 Scheduled Monument	Archaeological Photographic Recording; and protective fencing that incorporates a 10m buffer around the listed milestone.

Site / Action Area no.	Section	Site / asset name	UID / NHLE or WSHER ref Designation	Mitigation
23	2, 3	Barrow (Wilsford G1) and other scheduled monuments under or close to the line of the tunnel including the Avenue.	UID 2018 / NHLE 1010832 UID 3001 / NHLE 1008953 UID 3014 / NHLE 1008947 UID 3018 / NHLE 1012420 UID 3010.01 / NHLE 1010140 UID 3010.02 / NHLE 1010140 UID 3010.03 / NHLE 1010140 UID 3012 / NHLE 1012372 UID 3017 / NHLE 1012381 UID 3020 / NHLE 1012129 Scheduled Monuments	Protective fencing that incorporates a 10m buffer around the scheduled areas, where appropriate.

Site / Action Area no.	Section	Site / asset name	UID / NHLE or WSHER ref Designation	Mitigation
27	2, 3, 4	Barrows that are scheduled and milestones that are listed, along sections of the A303, A360 and Stonehenge Road which will be converted into green lanes. Non-designated 1918 military stone marker (military 1918 stone RFC/RAF Stonehenge Airfield Marker “A.M. No.1”)	UID 2003 / NHLE 1011047 UID 2004 / NHLE 1011842 UID 2006 / NHLE 1011841 UID 3002 / NHLE 1012369 UID 3010.01 / NHLE 1010140 UID 3014 / NHLE 1008947 UID 3018 / NHLE 1012420 UID 3020 / NHLE 1012129 UID 3022 / NHLE 1012131 UID 4009 / NHLE 1009142 UID 4010 / NHLE 1012128 Scheduled Monuments UID 6027 / NHLE 1130972 UID 6031 / NHLE 1130999 UID 6040 / NHLE 1131085 UID 6042 / NHLE 1131071 Listed milestones Non-designated small hengiform enclosure just south of the A303 and east of the A360 at NGR SU104414)	Archaeological Photographic Recording; and protective fencing that incorporates a 10m buffer around the scheduled area, where appropriate.
31	4	Countess East compound area multi-period occupation (Neolithic, Iron Age, Roman, Saxon).	UID 4040 / MWI11909 UID 4041 / MWI11896 UID 4039.01 / MWI12036 UID 4039.02 / MWI12036 UID 4039.03 / MWI12036 UID 4039.04 / MWI12036 UID 4039.05 / MWI12037 UID 4042.01 / MWI12030	Protective fencing that incorporates a 10m buffer around the archaeological remains within the compound area. Appropriate protection using protective barrier membrane, suitable fill and vehicle control measures.

Site / Action Area no.	Section	Site / asset name	UID / NHLE or WSHER ref Designation	Mitigation
32	4	Barrows east of Solstice Park.	UID 4059 / NHLE 1009566 UID 4060 / NHLE 1009872 UID 4063 / NHLE 1009871 Scheduled monuments	Archaeological Photographic Recording; and protective fencing that incorporates a 10m buffer around the scheduled area.
34	5	Listed milestone at Rollestone Corner	UID 6122 / NHLE 1284782 Listed building	Archaeological Photographic Recording; and protective fencing that incorporates a 10m buffer around the listed milestone, where feasible.
36	2	Area of archaeological interest north from A360 North Link Road to Stonehenge visitor centre within the WHS for NMU route.	No UID	Protective fencing. Appropriate protection using protective barrier membrane, suitable fill and vehicle control measures.
37	2	Area of archaeological interest south from A360 South Link Road to Druids Lodge within the WHS for NMU route. Listed Mileston, A360, Devizes Road	No UID NHLE 1318705	Protective fencing. Appropriate protection using protective barrier membrane, suitable fill and vehicle control measures. Archaeological Photographic Recording; and protective fencing that incorporates a 10m buffer around the listed milestone, where feasible.

Table 2.3: Proposed archaeological fieldwork areas

Site / Action Area no.	Section	Site / asset name and Description	UID (NHLE / WSHER ref) Designation	Mitigation
2	1, 2	Fields systems east of Yarnbury Camp which are located either side of the A303; and an undated oval enclosure.	UID 1004.01 / MWI6094, MWI6232, MWI6930, MWI6943, MWI6994, MWI6996, MWI6997, MWI7001, MWI7095, MWI7112, MWI7130, MWI7235, MWI7267, MWI7223, MWI7261 (field systems)	Detailed excavation where no dig solution is not feasible.
3	2	Possible ring ditch on mainline, west of Scotland Lodge (found by geophysics, subsequent trial trench did not locate it.	UID 2025 / MWI74873	Detailed excavation.
4	2	Enclosures, field systems and isolated burials (Iron Age) north-west and north of Scotland Lodge. Iron Age settlement on the Scheme mainline.	UID 1004.01 / MWI6094, MWI6232, MWI6930, MWI6943, MWI6994, MWI6996, MWI6997, MWI7001, MWI7095, MWI7112, MWI7130 MWI7235, MWI7267 (field systems) UID 2027 / MWI6935 (burial) UID 2029 / MWI6948, MWI7133 (field systems – enclosures)	Detailed excavation.
5	2	Northern edge of Iron Age settlement at Scotland Lodge impacted by Scheme mainline.	UID 1004.01 / MWI6943 UID 2033 / MWI6959	Detailed excavation.
6	2	Area of field systems and dispersed features adjacent to Bronze Age barrows (land required for landscape and biodiversity mitigation).	UID 1004.01 / MWI6094, MWI6232, MWI6930, MWI6943, MWI6994, MWI6996, MWI6997, MWI7001, MWI7095, MWI7112, MWI7130, MWI7235, MWI7267 (field systems)	Detailed excavation where no dig solution is not feasible.
10	2	Dispersed unenclosed settlement of possible Bronze Age date located on slightly higher ground overlooking dry valley to the south-west in an area required for soil storage (Parsonage Down excavated material).	UID 2036 / MWI74874 (oval enclosure) UID 2038 / MWI74875 (pits)	Detailed excavation where preservation in situ not feasible beneath deeper areas of excavated material deposition (greater than 2m in thickness).

Site / Action Area no.	Section	Site / asset name and Description	UID (NHLE / WSHER ref) Designation	Mitigation
11	2	Linear boundary, extensive field systems, enclosures and possible trackways of possible Iron Age / Romano-British date in an area required for soil storage (Parsonage Down excavated material).	UID 1005 / MWI7159, MWI7245, MWI7262 (linear boundary) UID 1004.01 / MWI6094, MWI6232, MWI6930, MWI6943, MWI6994, MWI6996, MWI6997, MWI7001, MWI7095, MWI7112, MWI7130, MWI7235, MWI7267 (field systems)	Detailed excavation where preservation in situ not feasible beneath deeper areas of excavated material deposition (greater than 2m in thickness).
12	2	Possible area of undated lynchets and field systems at Parsonage Down.	UID 1004.01 / MWI6094, MWI6232, MWI6930, MWI6943, MWI6994, MWI6996, MWI6997, MWI7001, MWI7095, MWI7112, MWI7130, MWI7235, MWI7267 (field systems)	Detailed excavation (under mainline and highway embankments), but avoiding oil pipeline.
13	2	Iron Age / Romano-British pits, ditches and undated ring ditches (not located by recent geophysical survey or previous trial trenching) on the west bank of the River Till. Water meadows of possible medieval or post-medieval date on the west and east banks of the River Till Valley. Geoarchaeological / Palaeo-environmental deposits.	UID 2050 / MWI6987	Combination of detailed excavation, geoarchaeological assessment, and archaeological topographic survey.
15	2	Field systems and enclosures, including possible Iron Age lynchets, and a buried soil horizon and colluvium within a dry valley.	UID 2053 / MWI7009, MWI7111 (field system) UID 2056 / MWI73338 (field system) UID 2048 / MWI7009, MWI73341, MWI73343 (land boundary) UID 2068 / MWI6407, MWI12690 (land boundary) UID 2052 / MWI74877 (ridge and furrow)	Combination of detailed excavation and geoarchaeological assessment of buried soil and colluvial deposits along dry valley.

Site / Action Area no.	Section	Site / asset name and Description	UID (NHLE / WSHER ref) Designation	Mitigation
16	2	Longbarrow Junction (south), mainline to the A360 and the realigned A360 south - C-shaped enclosure at Longbarrow Junction (southern dumbbell), scattered pits, Wessex linear and two sides of a possible enclosure.	UID 2072 / MWI720 (enclosure) UID 2068 / MWI6407, MWI12690 (land boundaries) UID 2073 & UID 2078 / MWI7125 (land boundary) UID 2074 / MWI6945 (field systems) UID 2089 / MWI7003, MWI7094, MWI12625, MWI13128, MWI13155 (field systems) UID 2081 / MWI6991 (field systems) UID 2075 / MWI6946 (pits)	Detailed excavation of C-shaped enclosure and associated remains; detailed excavation of the mainline to the east of the C-shaped enclosure and the realigned A360 south, where scattered pits, a Wessex linear and two sides of a possible enclosure have been located by trial trenching.
19	2	Realigned A360 north - isolated burials, flint scatter, scattered pits, ditches and post holes, Wessex linears and a geological sinkhole.	UID 2014.02 / MWI6406 (land boundary) UID 2073 & UID 2078 / MWI7125 (settlement evidence) UID 2076 & UID 2078 / MWI7201 (settlement evidence) UID 2078 / MWI6405 (settlement evidence)	Combination of detailed excavation and geoarchaeological assessment.

Site / Action Area no.	Section	Site / asset name and Description	UID (NHLE / WSHER ref) Designation	Mitigation
24	2	Main line A360 to Western Portal – flint scatters, occasional scattered pits and post holes, dry valley and a geological sinkhole.	UID 2001 / MWI6924, MWI7128, MWI7198 (Bronze Age settlement) UID 2088 / MWI12541 (pits) UID 2089 / MWI7003, MWI7094, MWI12625, MWI13128, MWI13155 (field system) UID 2098 / MWI13149 (linear features) UID 2018 / MWI12542, MWI13002 (flat graves associated with Wilsford G1 barrow) UID 2089 / MWI7003, MWI7094, MWI12625, MWI13128, MWI13155 (military railway)	Combination of detailed excavation and geoarchaeological assessment.
26	2, 3	Movement monitoring points for the tunnel section.	No UID	Detailed excavation of small areas for each monitoring position including ploughsoil artefact sampling with micro-siting of the equipment to avoid archaeological remains. (Carried out prior to the installation of the equipment).
28	4	Buried soil horizon and double ditch, undated ditch, flint scatters, in situ flint knapping in stony hollow.	No UID	Combination of detailed excavation and geoarchaeological assessment.
29	4	Mesolithic site at Countess Farm West – Mesolithic material located within a buried soil horizon and colluvial deposits.	UID 4036 / MWI11874	Combination of detailed excavation and geoarchaeological assessment.
30	4	Channel cleaning of existing highway drainage ditches.	No UID	Combination of detailed excavation and geoarchaeological assessment.
33	4	Area of archaeological interest east of Solstice Park (west of a group of scheduled barrows).	No UID	Detailed excavation.

Site / Action Area no.	Section	Site / asset name and Description	UID (NHLE / WSHER ref) Designation	Mitigation
35	5	Rollestone Corner - occasional tree throws that contained material that could broadly be of Neolithic date.	No UID	Detailed excavation.

3 Outline Method Statements

3.1 Detailed Archaeological Excavation

3.1.1 Sites or areas designated for detailed excavation (including extensive sample excavation) will be stripped with mechanical plant as set out in the approved DAMS and OWSI and the SSWSI, unless certain specific areas require further targeted test-pit mitigation to recover artefacts from the topsoil. If the latter is the case the methods to be used will be specified in the appropriate SSWSI. For areas where machine stripping is required, this means the stripping of topsoil, subsoil or other overburden to the correct archaeological level under the supervision of a qualified archaeologist, using back-acting mechanical plant fitted with a toothless bucket, in such a manner as to cleanly expose the archaeological horizon. Dump trucks and other plant will not be permitted to track over stripped areas until archaeological investigations are complete and the archaeological site or area signed-off.

3.1.2 Sites or areas opened for detailed excavation and/ or Archaeological Monitoring and Recording will be subject to archaeological survey, resulting in a digital pre-excavation plan. In accordance with the research objectives as identified in the approved SSWSI, the archaeological site or area would then be subject to the sample excavation of key features designed to recover artefactual dating evidence, and selected feature complexes would be subject to further excavation designed to resolve stratigraphic relationships.

3.1.3 The works would also include sampling of archaeological features for charred plant remains, molluscs, pollen and other palaeo-environmental and palaeo-economic indicators, where suitable preservation conditions exist in combination with archaeological deposits. Artefact and environmental assessments would be carried out during the course of the works, and selected key features may be subject to more detailed excavation and sample recovery, to address the research objectives of the archaeological programme.

3.1.4 The proportion of features excavated would be determined by the importance of the features and the requirements of the research objectives. The iterative process outlined allows the approach to excavation sampling to be closely targeted to address specific questions, rather than being tied to a pre-determined excavation strategy.

3.1.5 The research objectives and excavation strategy will be kept under review. It is critical for the success of this approach that the majority of data, artefact and environmental sample processing would be undertaken whilst the investigation proceeds (including artefact spot-dating and preliminary assessment of environmental samples). Decisions on further investigation in a given area would be made as soon as sufficient information becomes available.

3.1.6 A Scheme-wide programme of radiocarbon dating will be undertaken on samples from suitably secure contexts, in order to place the main historical processes that have affected landscape development within an absolute chronological framework.

3.1.7 Palaeo-environmental samples will be recovered where suitable deposits are present, in particular from waterlogged sequences or deposits sealed in a primary context, to assist with regional palaeo-environmental reconstruction.

3.1.8 Geoarchaeological investigations will focus on areas of particular interest as identified through previous and current archaeological evaluations and be specifically designed to address particular research questions.

3.2 Fieldwalking

3.2.1 Surface artefact collection by fieldwalking may be employed, where land has not been previously sampled as conditions were not suitable, – i.e. ploughed, rolled and weathered, with minimal crop growth such that more than 50% of the field surface is visible. A scalable strategy based on gridded collection is proposed, based on advice from the Scientific Committee. This will be centred around total collection of all artefactual material visible on the surface within 5m x 5m square units (25m^2), initially spaced at 20m intervals, giving a 6.25% sample of the total area. Where judgements are later made in the field to reduce the collection interval (following consultation and agreement with HMAG/WCAS), informed by particular concentrations or distinctive assesmblages of material, additional squares can reduce the interval to every 10m (giving a 25% sample), or further still to every 5m or a lower distance interval.

3.2.2 It is recognised that surface artefact collection remains contingent on timing and results can be affected by variables of ground, weather and light conditions. The potential for preparation of agricultural land for effective collection is necessarily limited by landowner agreement prior to taking possession of or acquisition of the land.

3.3 Topographic survey

3.3.1 Topographic survey will be used to record earthwork features that are visible within the Scheme footprint and that would be destroyed as a result of construction activity. Various survey techniques will be deployed on a site-by-site basis to record these earthworks which would be described in each SSWSI and may be combined with other mitigation measures such as photographic recording.

3.4 Archaeological Photographic Recording

3.4.1 Archaeological photographic recording will be used to record the current condition of heritage assets that have been selected for preservation *in situ*, prior to the installation of any protective fencing. The level of photographic recording would be described in each SSWSI.

3.5 Trial Trench Evaluation

3.5.1 Archaeological trial trench evaluation will be undertaken as per the methods set out in the Archaeological Evaluation Strategy Report (AESR) (AMW 2018a), its accompanying Outline Written Scheme of Investigation (OWSI) (AMW 2018b) and the appropriate Stite Specific Written Scheme of Investigation (SSWSI) for

the scheme, in the few small areas within the red line boundary where land access has been denied prior to public examination.

3.6 Preservation *in situ*

3.6.1 Heritage assets and archaeological sites will be protected by a combination of protection measures that will be put in place at the start of the construction programme to ensure their long-term survival. Relevant protection measures would include temporary protective fencing which will be maintained throughout the preliminary works and construction stages (incorporating an additional 10m buffer area for specific identified designated and non-designated assets), and at some locations the use of a combination of appropriate protective barrier membrane, suitable fill material to bury archaeological remains and vehicle / plant control measures. For each site or heritage asset, protection measures will be described in a site specific method statement.

4 Phasing of Archaeological Mitigation Programme

4.1 Preliminary Works

4.1.1 The archaeological mitigation programme (recording works for archaeology) would commence as part of the preliminary works and in advance of the start of the main construction works.

4.1.2 The exact timing of the mitigation programme is dependent upon land access requirements under the DCO, prevailing ground conditions and related utility diversions. Mitigation works would be generally programmed as follows:

4.1.3 Phase 1: topographic surveys, small-scale investigation of historic landscape features and minor archaeological sites and geoarchaeology investigations. Archaeological mitigation would be carried out during advanced works contracts such as installation of highway boundary, utility diversions, ecology works and woodland clearance at certain locations. Archaeological mitigation at selected sites to facilitate the installation of protective fencing would be carried out.

4.1.4 Phase 2: Detailed Excavation would be undertaken during the preliminary works stage (and prior to construction), at archaeological sites and areas requiring preservation by record. Detailed design works for additional sites that require preservation *in situ* would be developed and implemented during the preliminary works stage, if appropriate, and maintained throughout the preliminary and construction works.

4.2 Construction Works

4.2.1 Phase 3: Monitoring works would be undertaken to ensure the preservation *in situ* of archaeological assets in accordance with the method statements (including sites to be fenced and protected, areas to be preserved under excavated material and landscape fill areas, areas to be protected by no-dig solutions for haul roads, temporary roads required for traffic management, NMU and PMA routes and compound areas).

4.2.2 Archaeological evaluation and mitigation fieldwork will be designed and implemented in compound areas where a no-dig solution is not possible or appropriate (for example areas required for concrete batching plants or excavated material processing plants), with appropriate micro-siting to avoid archaeological remains, where feasible.

4.2.3 Archaeological mitigation fieldwork would be undertaken in advance of the installation of tunnel movement monitoring stations above the section of the scheme that is in tunnel, where this has not been possible during the preliminary works stage.

4.3 Post-Excavation Assessment, Analysis, Reporting and Dissemination

4.3.1 A post-excavation assessment, in accordance with DMRB and Historic England guidelines, followed by an appropriate scheme of detailed analysis and reporting would be undertaken. It will commence as soon as the archaeological mitigation fieldwork has been completed.

4.3.2 The post-excavation works are likely to result in both a popular publication(s) and an academic monograph or academic papers presented in an appropriate geographic or topic specific academic journal (which will either be available in hard copy or online).

4.3.3 The results of the archaeological fieldwork will be disseminated, by various means, to as wide an audience as possible (local, regional, national, international), given the importance of the WHS.

4.3.4 The Project archive would be deposited at a local museum for long-term storage and the archive would be made publicly accessible with the museum's agreement. Digital data and digital finds information would also be conserved on a local and/or national web-based server.

4.3.5 Opportunities for public archaeology would be arranged to view work in progress and to highlight the heritage-led aspects of the scheme, providing a ‘behind-the-scenes’ insight and showcasing archaeological discoveries arising from the investigations made, where safe to do so.

4.3.6 Media relations would be maintained throughout the scheme and relevant details provided to media outlets, to inform local communities, the wider general public and the academic community.

4.3.7 Opportunities to enhance public appreciation of the findings and an understanding of the scheme would be developed during the course of the investigations and could involve, for example, providing interpretation panels and displays of finds at selected venues.

Abbreviations List

AMS	Archaeological Mitigation Strategy
OWSI	Overarching Written Scheme of Investigation
SSWSI	Site Specific Written Scheme(s) of Investigation
WHS	World Heritage Site
HMAG	Historic Monitoring Advisory Group
WCAS	Wiltshire Council Archaeology Service
FAD	Further Archaeological Design
CEMP	Construction Environmental Management Plan
TWB	Targeted watching brief
GWB	General watching brief

References

AmW 2018a, Archaeological Evaluation Strategy Report (AESR) (HE551506-AMW-EHR-SW_GN_000_Z-MS-0001)

AmW 2018b, An Overarching Written Scheme of Investigation (OWSI) (HE551506-AMW-EHR-SW_GN_000_Z-SP-LH-001)

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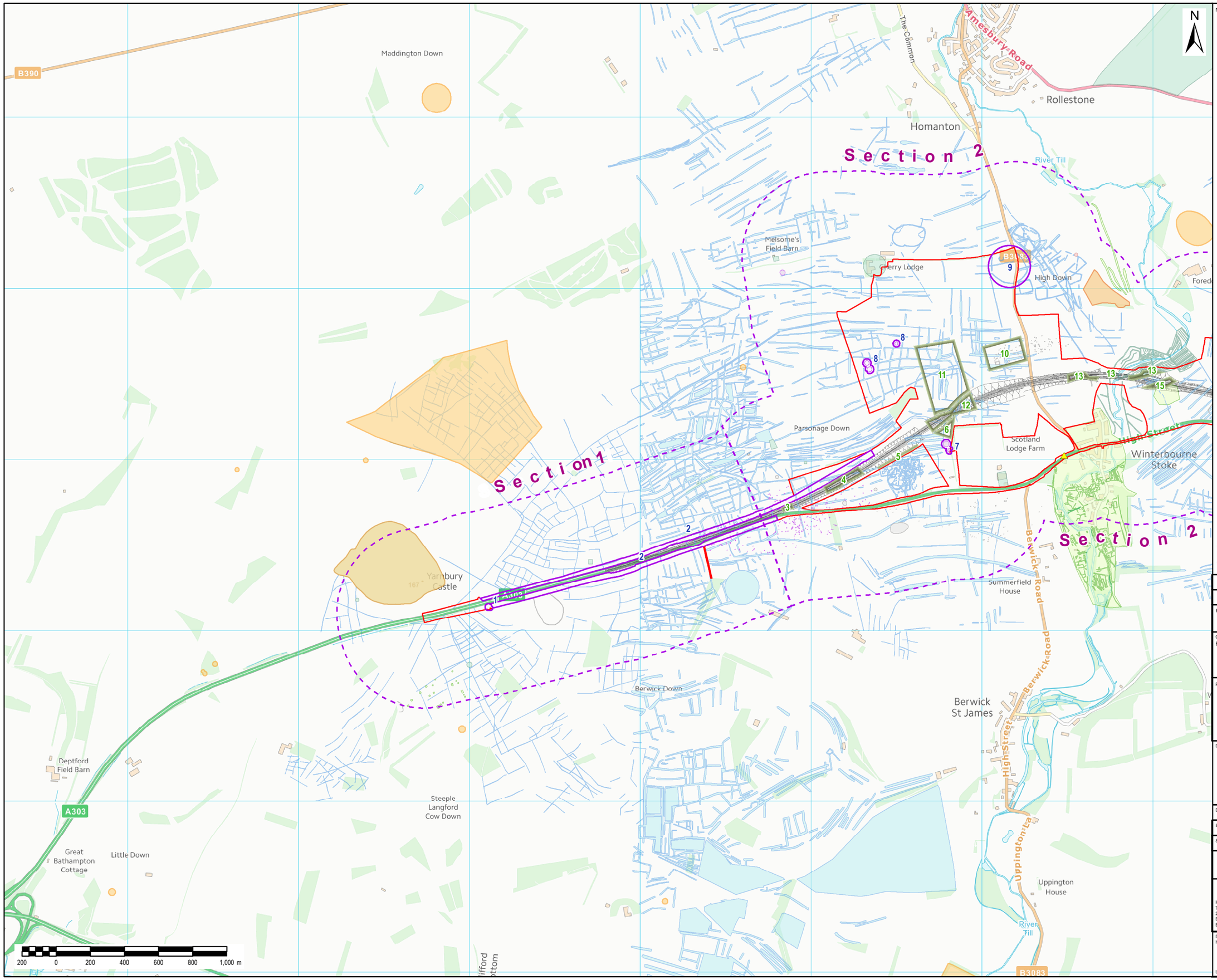
Leivers M and Powell A (2016) A Research Framework for the Stonehenge, Avebury and Associated Sites World Heritage Site - Research Agenda and Strategy, Wessex Archaeology, Salisbury.

Figures



NOTES / LEGEND

- Proposed scheme boundary
- 500m Study Area
- Proposed archaeological mitigation areas
- Proposed protection areas / preservation in situ
- Prehistoric (other)
- Mesolithic; Mesolithic - Early Neolithic
- Neolithic; Neolithic - Bronze Age; Neolithic - Bronze Age; Bronze Age
- Bronze Age - Iron Age; Bronze Age - Roman; Middle Bronze Age; Middle Bronze Age - Iron Age; Middle Bronze Age - Roman; Iron Age; Iron Age - Roman; Later Prehistoric - Roman; Roman
- Early Medieval; Early Medieval - 20th Century; Medieval; Medieval - Post Medieval; Medieval -19th century; Medieval - 20th Century
- Post Medieval to 20th century
- Uncertain

Revision Details	By / Check	Date	Suffix

Purpose of issue: FINAL

Client: Highways England

Working on behalf of: highways england

Project Title: A303 AMESBURY TO BERWICK DOWN

Drawing Title: FIGURE 1A ARCHAEOLOGICAL MITIGATION AREAS

Designed	Drawn	Checked	Approved	Date
RM	RM	AP	WB	20/08/18

Internal Project No.: 60541200

Scale @ A3: 1:20,000 | Zone: SW

Highways England
Temple Quay House
2 The Square, Temple Quay
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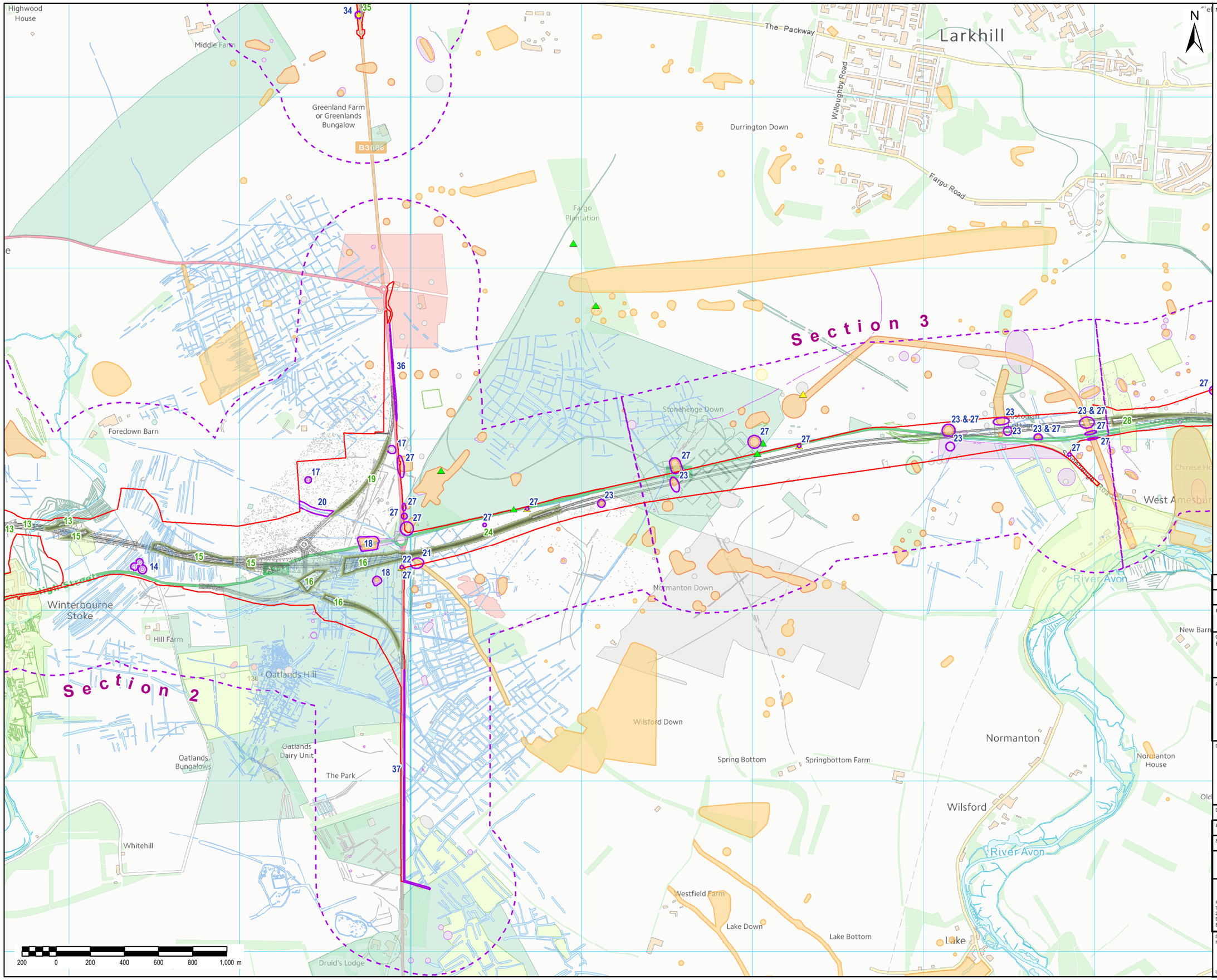
BS1 6HA

Drawing Number Highways England PIN	Originator	Volume	Location	Type	Role	Number	Rev
HE551506	AMW	GEN	SCHEME WIDE	DR	GI	00340	01

Filename: pw:\\UKLON3AP114.aecomonline.local:PWAECOM_EU\Documents\60541439-A303 Stonehenge Technical Partner\0300 Non Deliverables\0330 Environmental Management Team\GIS\Figures\HE551506-AMW-DR-GI-00360.mxd



NOTES / LEGEND

- Proposed scheme boundary
- 500m Study Area
- Proposed archaeological mitigation areas
- Proposed protection areas / preservation in situ
- Prehistoric (other)
- Mesolithic; Mesolithic - Early Neolithic
- Neolithic; Neolithic - Bronze Age; Neolithic - Bronze Age; Bronze Age
- Bronze Age - Iron Age; Bronze Age - Roman; Middle Bronze Age; Middle Bronze Age - Iron Age; Middle Bronze Age - Roman; Iron Age; Iron Age - Roman; Later Prehistoric - Roman; Roman
- Early Medieval; Early Medieval - 20th Century; Medieval; Medieval - Post Medieval; Medieval -19th century; Medieval - 20th Century
- Post Medieval to 20th century
- Uncertain

Revision Details	By / Check	Date	Suffix

Purpose of issue: FINAL

Client: Highways England

Working on behalf of: highways england

Project Title: A303 AMESBURY TO BERWICK DOWN

Drawing Title: FIGURE 1B ARCHAEOLOGICAL MITIGATION AREAS

Designed	Drawn	Checked	Approved	Date
RM	RM	AP	WB	20/08/18

Internal Project No.: 60541200

Scale @ A3: 1:20,000 | Zone: SW

Highways England
Temple Quay House
2 The Square, Temple Quay
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BS1 6HA

Drawing Number: Highways England PIN	Originator	Volume	Location	Type	Role	Number	Rev
HE551506	AMW	GEN	SCHEME WIDE	DR	GI	00340	01

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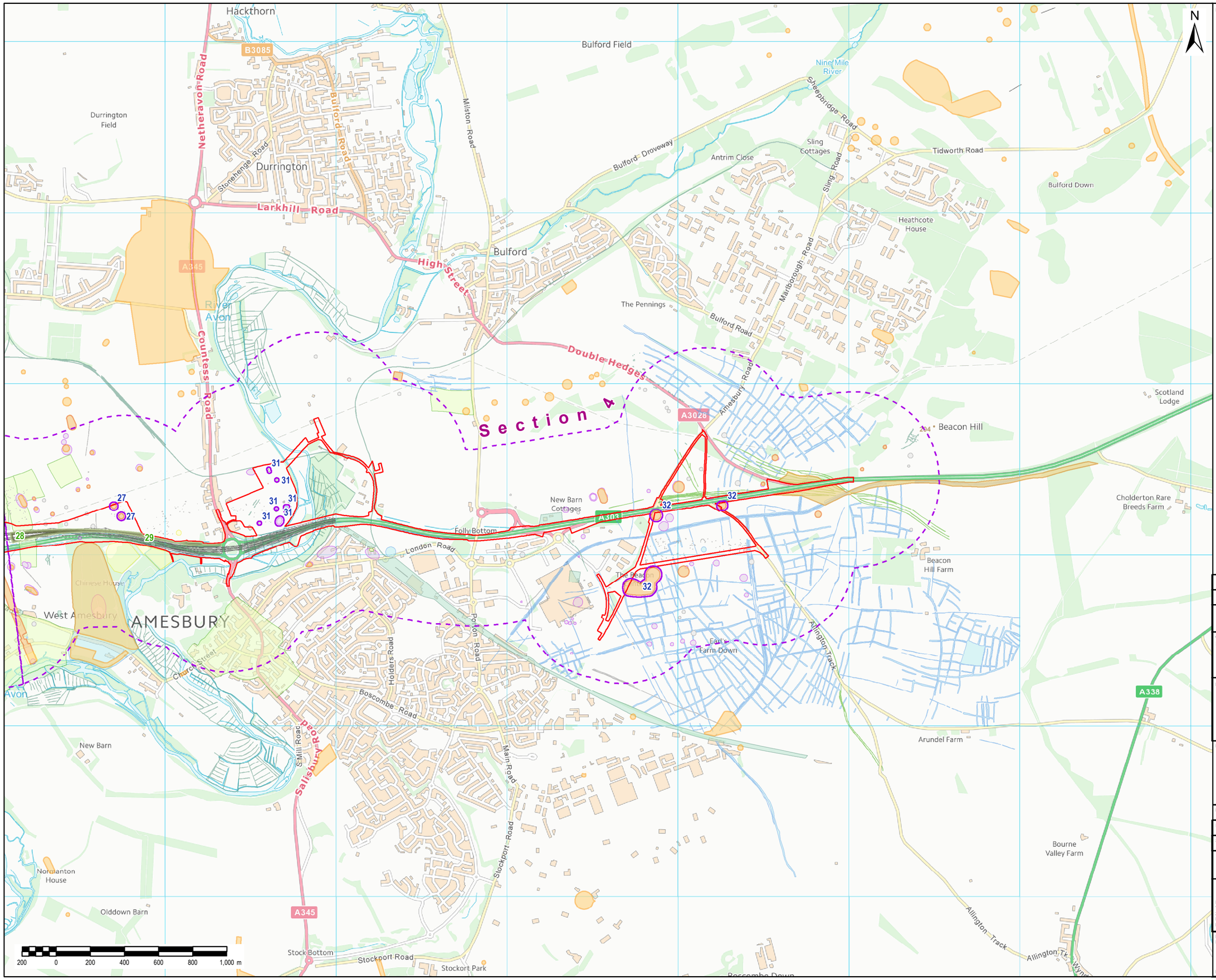


NOTES / LEGEND

- Proposed scheme boundary
- 500m Study Area
- Proposed archaeological mitigation areas
- Proposed protection areas / preservation in situ
- Prehistoric (other)
- Mesolithic; Mesolithic - Early Neolithic
- Neolithic; Neolithic - Bronze Age; Neolithic - Bronze Age; Bronze Age
- Bronze Age - Iron Age; Bronze Age - Roman; Middle Bronze Age; Middle Bronze Age - Iron Age; Middle Bronze Age - Roman; Iron Age; Iron Age - Roman; Later Prehistoric - Roman; Roman
- Early Medieval; Early Medieval - 20th Century; Medieval; Medieval - Post Medieval; Medieval -19th century; Medieval - 20th Century
- Post Medieval to 20th century
- Uncertain

Revision Details	By / Check	Date	Suffix

Purpose of issue: FINAL

Client: Highways England

Working on behalf of: highways england

Project Title: A303 AMESBURY TO BERWICK DOWN

Drawing Title: FIGURE 1C ARCHAEOLOGICAL MITIGATION AREAS

Designed	Drawn	Checked	Approved	Date
RM	RM	AP	WB	20/08/18

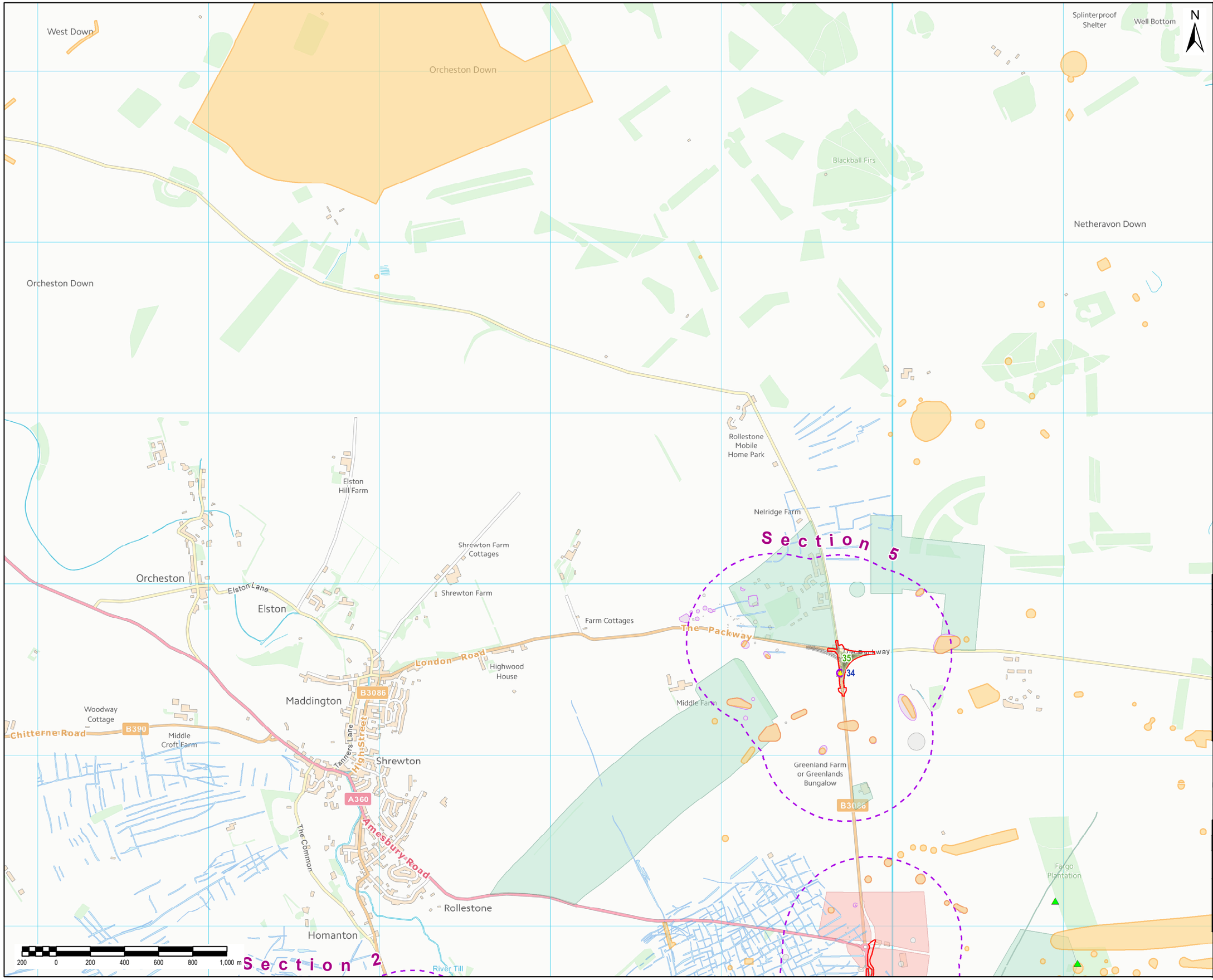
Internal Project No.: 60541200

Scale @ A3: 1:20,000 | Zone: SW

Highways England
Temple Quay House
2 The Square, Temple Quay
Bristol
BS1 6HA

Drawing Number: Highways England PIN	Originator	Volume	Rev
HE551506	AMW	GEN	01
SCHEME WIDE	DR	GI	00340
Location	Type	Role	Number

Filename: pw:\\UKLON3AP114.aecomonline.local:PWAECOM_EU\Documents\60541439-A303 Stonehenge Technical Partner\0300 Non Deliverables\0330 Environmental Management Team\GIS\Figures\HE551506-AMW-DR-GI-00360.mxd



NOTES / LEGEND

- Proposed scheme boundary
- 500m Study Area
- Proposed archaeological mitigation areas
- Proposed protection areas / preservation in situ
- Prehistoric (other)
- Mesolithic; Mesolithic - Early Neolithic
- Neolithic; Neolithic - Bronze Age; Neolithic - Bronze Age; Bronze Age
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- Early Medieval; Early Medieval - 20th Century; Medieval; Medieval - Post Medieval; Medieval -19th century; Medieval - 20th Century
- Post Medieval to 20th century
- Uncertain

Revision Details	By / Check	Date	Suffix

Purpose of issue: FINAL

Client: Highways England

Working on behalf of: highways england

Project Title: A303 AMESBURY TO BERWICK DOWN

Drawing Title: FIGURE 1D ARCHAEOLOGICAL MITIGATION AREAS

Designed	Drawn	Checked	Approved	Date
RM	RM	AP	WB	20/08/18

Internal Project No.: 60541200

Scale @ A3: 1:20,000 | Zone: SW

Highways England
Temple Quay House
2 The Square, Temple Quay
Bristol
BS1 6HA

Drawing Number: Highways England PIN	Originator	Volume	Location	Type	Role	Number	Rev
HE551506	AMW	GEN	SCHEME WIDE	DR	GI	00340	01

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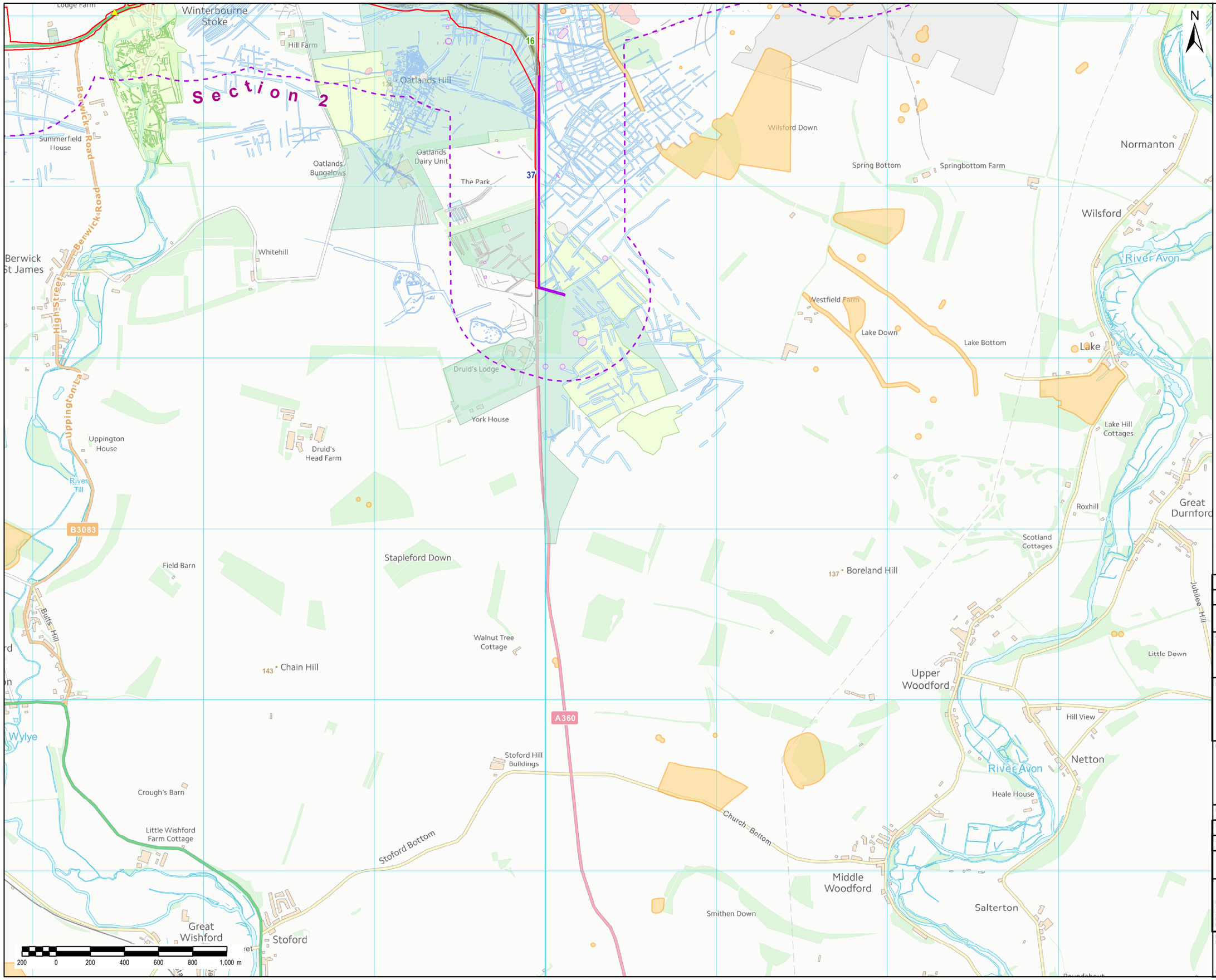

NOTES / LEGEND

- Proposed scheme boundary
- 500m Study Area
- Proposed archaeological mitigation areas
- Proposed protection areas / preservation in situ
- Prehistoric (other)
- Mesolithic; Mesolithic - Early Neolithic
- Neolithic; Neolithic - Bronze Age; Neolithic - Bronze Age; Bronze Age
- Bronze Age - Iron Age; Bronze Age - Roman; Middle Bronze Age; Middle Bronze Age - Iron Age; Middle Bronze Age - Roman; Iron Age; Iron Age - Roman; Later Prehistoric - Roman; Roman
- Early Medieval; Early Medieval - 20th Century; Medieval; Medieval - Post Medieval; Medieval -19th century; Medieval - 20th Century
- Post Medieval to 20th century
- Uncertain

Revision Details	By / Check	Date	Suffix

Purpose of issue: FINAL

Client: Highways England

Working on behalf of: highways england

Project Title: A303 AMESBURY TO BERWICK DOWN

Drawing Title: FIGURE 1E ARCHAEOLOGICAL MITIGATION AREAS

Designed	Drawn	Checked	Approved	Date
RM	RM	AP	WB	20/08/18

Internal Project No.: 60541200

Scale @ A3: 1:20,000 | Zone: SW

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Drawing Number: Highways England PIN	Originator	Volume	Location	Type	Role	Number	Rev
HE551506	AMW	GEN	SCHEME WIDE	DR	GI	00340	01

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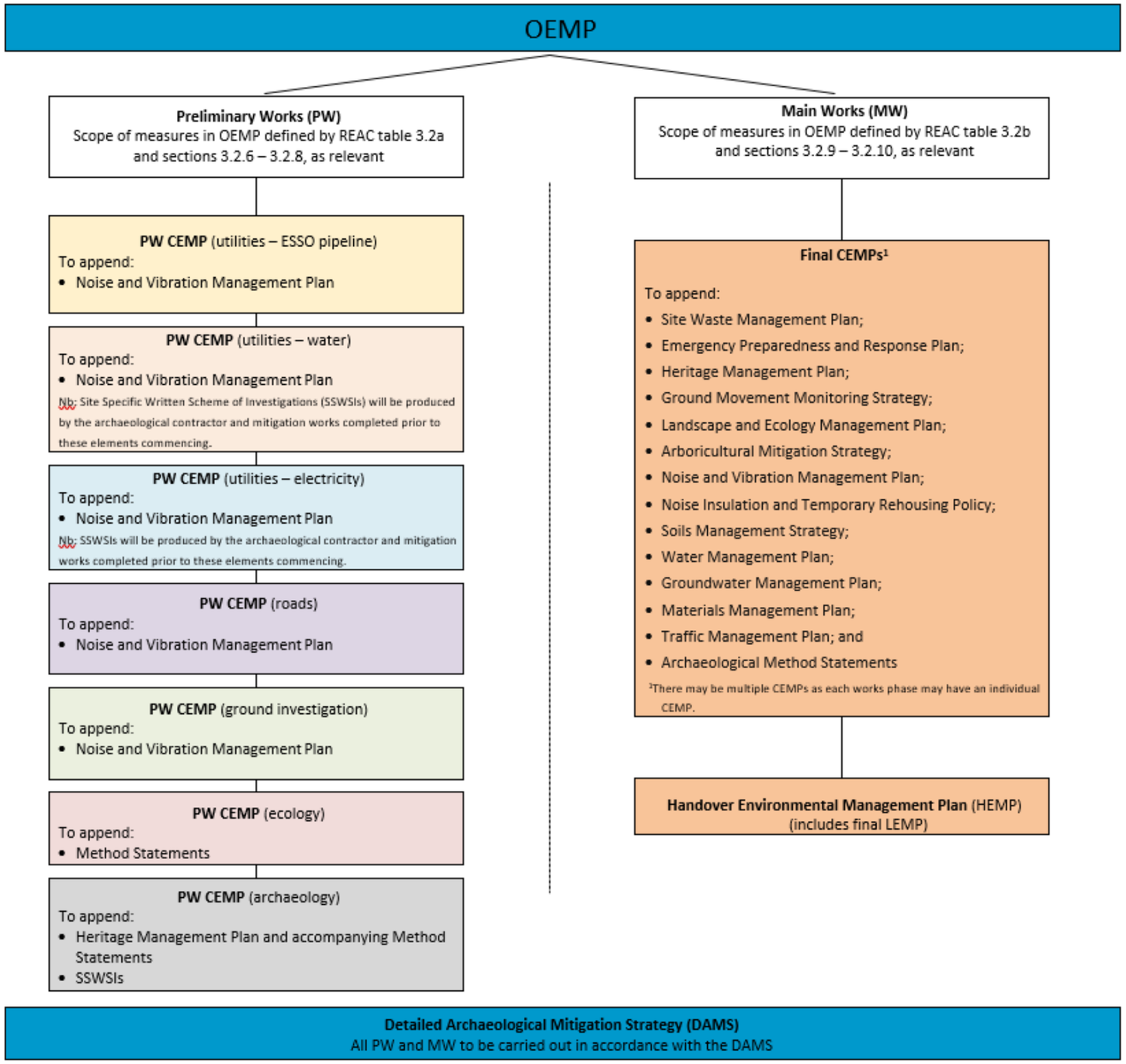
Annex A.3 – visual aid showing the relationship between the CEMPS and other management plans



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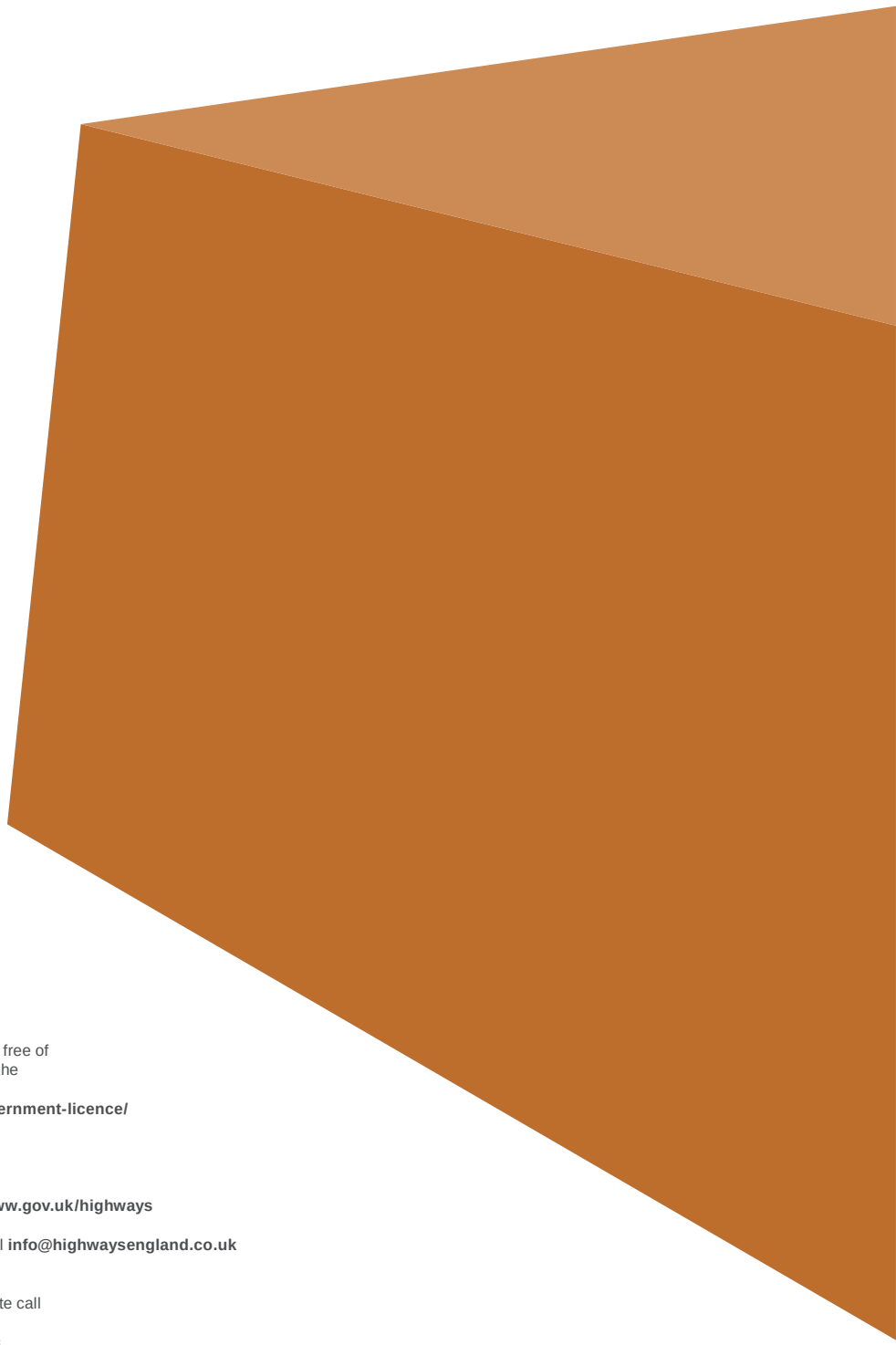

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