



## **Stonehenge and Avebury World Heritage Site Coordination Unit (WHSCU)**

### **Sarah Simmonds, Stonehenge and Avebury World Heritage Site Partnership Manager**

#### **Summary**

The representation from the World Heritage Site Coordination Unit (WHSCU) reviews the scheme in relation to the World Heritage Site (WHS) Management Plan and relevant policy framework.

The overarching aim of the Management Plan is the protection of the WHS and its OUV. The representation outlines how the bored tunnel and above ground elements of the scheme either align or diverge from the aims and policies of the Management Plan. Based on this the elements of the scheme that are likely to benefit the WHS are highlighted and approaches to maximising this benefit discussed both through the DCO process and WHS partnership projects designed to enhance the positive legacy. Where adverse impacts are identified, mitigation is proposed to bring the scheme into alignment with the WHS Management Plan and policy framework where this is possible. The representation highlights where it appears insufficient detail or evidence is not yet available to accurately assess some elements of the scheme or design appropriate mitigation.

In conclusion while there are substantial benefits to the WHS in relation to the bored tunnel element the scheme in its current form appears to continue to have adverse impacts related to a number of its above ground elements particularly in the west of the WHS for which there does not appear to be adequate mitigation. The obligation to protect the WHS and its OUV makes it inadvisable to proceed with the scheme in its current form unless adequate mitigation can be designed, evidenced and delivered across the whole WHS. This would need to be agreed as part of the DCO process. If this proves impossible, harm should be avoided through reconsideration of a longer bored tunnel taking the portals to beyond the WHS boundary and away from the most significant elements of its setting. A more detailed consideration of a surface route bypassing the WHS could also be revisited. Any assessment of impact and cost/benefit analysis should ensure the correct value is given to OUV which is defined by UNESCO as: "cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of this heritage is of the highest importance to the international community as a whole."

### **A303 Stonehenge - Amesbury to Berwick Down – Written Representation WHSCU**

We very much welcome the opportunity to provide a written representation on the plans for this major infrastructure project that will affect the World Heritage Site (WHS).

#### **Introduction**

The project offers a remarkable opportunity to remove the harmful impacts of the A303 in line with the vision and aims of the Stonehenge and Avebury World Heritage Site (WHS) Management Plan 2015. The correct scheme will be crucial in achieving this outcome in such a sensitive landscape. The potential to create new and damaging impacts is however a real possibility and this needs to be avoided through a carefully designed scheme based on appropriate evidence, expert advice and meaningful consultation. The scheme needs to avoid adverse impacts on the WHS and its Outstanding Universal Value (OUV) in line with our international obligations and the national and local policy framework.

Policy 1a of the Stonehenge and Avebury WHS Management Plan states that "Government departments, agencies and other statutory bodies responsible for making and implementing national policies and for undertaking activities that may impact on the WHS and its environs should recognise the importance of the

WHS and its need for special treatment and a unified approach to sustain its OUV.”

We commend Highways England on their commitment to this policy and their efforts during the development of the scheme to accommodate this duty alongside their other scheme objectives. The question now is whether sufficient weight has been given to the protection of the WHS and its OUV and whether there is adequate and appropriate evidence to accurately assess the impacts of the submitted scheme.

In considering the weight that should be given to the protection of the WHS it is important to consider the definition of OUV at paragraph 49 of UNESCO’s Operational Guidelines for the Implementation of the WHS Convention (2017); the Convention ratified by the United Kingdom in 1984: “Outstanding universal value means cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of this heritage is of the highest importance to the international community as a whole.” The National Policy Statement for National Networks (DfT 2014) at 1.2 requires the Secretary of State to consider our international obligations which would include those related to the UNESCO World Heritage Convention:

“the Secretary of State must decide an application for a national networks nationally significant infrastructure project in accordance with this NPS unless he/she is satisfied that to do so would:

- lead to the UK being in breach of its international obligations;.....”

The WHSCU has not been represented on the Heritage Monitoring and Advisory Group (HMAG) but has provided comments on the scheme and its alignment with the WHS Management Plan aims and policies at the non-statutory, statutory and supplementary stages of the consultation process prior to submission.

We welcome the changes to the scheme which have evolved during the scheme design process as a result of these consultations. These have in some areas improved alignment with the WHS Management Plan. Many of our comments however in response to the DCO submission remain unchanged both in relation to the benefits of the scheme where it aligns with WHS Management Plan aims and policies and where it appears to deviate and there is an adverse impact. In some areas the impacts and alignments with the Management Plan remain unclear due to the absence of comprehensive and convincing modelling and/or detailed design.

This comment will highlight where the current outline scheme delivers on the Management Plan and where it appears to deviate from its vision, aims and policies. It is hoped that this will assist in identifying whether the current scheme meets our overarching obligation of protecting the WHS and sustaining its OUV. Recommendations are included for increasing benefits and addressing adverse impacts where this is possible.

#### **Role of Stonehenge and Avebury World Heritage Site Partnership Manager**

The role of the Stonehenge and Avebury World Heritage Site Partnership Manager is to coordinate the implementation of the Stonehenge and Avebury World Heritage Site Management Plan working with national partner organisations including Historic England, Natural England, the National Trust and English Heritage, the local authority, landowners, farmers, local communities and other stakeholders. In addition, they monitor and report on the condition of the WHS and lead on a participatory approach to the revision and update of the Management Plan. As one of the authors of the last iteration of the WHS Management Plan in 2015, the first joint Stonehenge and Avebury Plan, the WHS Partnership Manager is familiar with its vision, aims and policies.

A key part of the role is to offer impartial and independent advice on issues relating to the implementation of the Management Plan and the protection of OUV.

The WHS Management Plan is endorsed by the partner organisations who sit on the local committees and the WHS Partnership Panel. These organisations and other stakeholders will submit their own representation to the DCO process. This response does not represent a partnership position. It is submitted by the WHS Partnership Manager and represents their summary of how the current scheme aligns with the aims and policies set out in the WHS Management Plan and other relevant policy.

The ICOMOS Guidance on Historic Impact Assessment for Cultural World Heritage Sites (2011) recommends that the conservation policies embedded in the management system can be used as a measure to assess potential adverse impacts. It suggests that proposals should be tested against policy frameworks and the Management Plan for the WHS.

Below is a summary of the policy context on which this response is based.

## **Policy Context**

### **Convention Concerning the Protection of the World Cultural and Natural Heritage**

The United Kingdom has been a signatory to the Convention Concerning the Protection of the World Cultural and Natural Heritage since 1984. By signing the Convention, the Government has undertaken to identify, protect, conserve, present and transmit its WHSs to future generations (UNESCO 1972, Article 4). It is for each government to decide how it can best fulfil these obligations. In England, this is done through the statutory spatial planning system, designation of specific assets and the development of WHS Management Plans.

### **Statement of Outstanding Universal Value**

In 2007 the World Heritage Committee recognised the 'pivotal importance of Statements of Outstanding Universal Value (Statements of OUV) in all World Heritage processes'. The Statement of OUV for Stonehenge, Avebury and Associated Sites was adopted by the World Heritage Committee in June 2013. The Statement of OUV now forms the focus of all protection and management decisions. Statements of OUV are key references for the effective protection and management of WHSs, the main objective of which should be to sustain its OUV. The Statement of OUV can be found at: <http://www.stonehengeandaveburywhs.org/assets/Stonehenge-and-Avebury-WHS-SOUV.pdf>

### **Attributes of OUV**

From the Statement of OUV, a number of attributes expressing the OUV have been identified to assist in the protection of the WHS. The attributes are not themselves individually of OUV but together they express the OUV of the WHS. These attributes are listed below. Although it is the Management Plan aims and policies that inform this response the attributes of OUV should be noted as the Plan is primarily designed for the protection of the WHS and its OUV.

1. Stonehenge itself as a globally famous and iconic monument.
2. The physical remains of the Neolithic and Bronze Age funerary and ceremonial monuments and associated sites.
3. The siting of Neolithic and Bronze Age funerary and ceremonial sites and monuments in the landscape.
4. The design of Neolithic and Bronze Age funerary and ceremonial sites and monuments in relation to the skies and astronomy.
5. The siting of Neolithic and Bronze Age funerary and ceremonial sites and monuments in relation to each other.
6. The disposition, physical remains and settings of the key Neolithic and Bronze Age funerary, ceremonial and other monuments and sites of the period, which together form a landscape without parallel.
7. The influence of the remains of Neolithic and Bronze Age funerary and ceremonial monuments and their landscape settings on architects, artists, historians, archaeologists and others.

## **World Heritage Site Management Plans**

Within the United Kingdom, Management Plans provide the overarching strategy for the management of WHSs. Since 1994 it has been UK Government policy that all UK World Heritage Sites should have Management Plans. They are a material consideration in planning decisions and provide a framework for guiding management initiatives. Management Plans are endorsed by the Department of Digital, Culture, Media and Sport (DCMS) and referred to UNESCO.

The main purpose of the Management Plan is to sustain the OUV of the WHS by ensuring the effective protection, conservation and presentation of the WHS and its transmission to future generations. To sustain the OUV, it is necessary to protect and manage all the attributes of OUV which contribute towards it. Other interests such as access, interpretation, nature conservation, farming, education, research and the needs of the local community are taken into account.

The Plan establishes an overall vision for the long-term future of the Stonehenge and Avebury WHS and sets out aims, policies and actions for the positive management of the WHS.

### **Vision for the WHS**

The vision for the WHS set out in the Management Plan is particularly relevant to consider in the case of a proposed significant change across such a large area of the Site.

*The Stonehenge and Avebury World Heritage Site is universally important for its unique and dense concentration of outstanding prehistoric monuments and sites which together form a landscape without parallel. We will work together to care for and safeguard this special area and provide a tranquil, rural and ecologically diverse setting for it and its archaeology. This will allow present and future generations to explore and enjoy the monuments and their landscape setting more fully. We will also ensure that the special qualities of the World Heritage Site are presented, interpreted and enhanced where appropriate, so that visitors, the local community and the whole world can better understand and value the extraordinary achievements of the prehistoric people who left us this rich legacy. We will realise the cultural, scientific and educational potential of the World Heritage Site as well as its social and economic benefits for the community.*

The most relevant Management Plan aims and policies are listed at Appendix A below.

### **National Planning Policy Framework (NPPF): World Heritage Sites**

The National Planning Policy Framework (NPPF) states at paragraph 184 that heritage assets of the “highest significance, such as World Heritage Sites which are internationally recognised to be of Outstanding Universal Value..... are an irreplaceable resource, and should be conserved in a manner appropriate to their Significance.”. At paragraph 194 the NPPF states that:

“Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification. Substantial harm to or loss of:

b) assets of the highest significance, notably scheduled monuments.....and World Heritage Sites, should be wholly exceptional.

### **Further Guidance on World Heritage Sites**

The Planning Practice Guidance (PPG) Further Guidance on World Heritage Sites prepared in 2014 to align with the NPPF states that ‘...the description of the Outstanding Universal Value will be part of the World Heritage Site’s heritage significance and National Planning Policy Framework policies will apply to the Outstanding Universal Value as they do to any other heritage significance...’(para 031). At paragraph 029 it confirms that Statements of OUV are ‘key reference documents for the protection and management of each Site and can only be amended by the World Heritage Committee.’

### **Wiltshire Core Strategy Policy 59**

In the UK, World Heritage Sites as a whole are protected primarily through the planning system. This system depends on a hierarchy of the NPPF and Local Plans which include Core Strategies.

The WHS Policy 59 in the Wiltshire Core Strategy underlines that precedence should be given to the protection of the WHS and its OUV. It requires the applicant to demonstrate that full account has been taken of the impact of the proposal upon the World Heritage Site. The proposal needs to demonstrate that the development will have no individual, cumulative or consequential adverse effect upon the WHS and its OUV. This includes the physical fabric, character and appearance, setting or views into or out of the WHS. It also requires that any development demonstrates due consideration of opportunities for enhancing the World Heritage Site and its OUV. In addition, development should support and maintain the positive management of the WHS improving its conservation, presentation and interpretation.

The inclusion of this policy in the Core Strategy fulfils Policy 1b of the WHS Management Plan: “Set within the framework provided by the Management Plan, relevant stakeholders should implement existing policy and guidance and where necessary develop policies and written guidance at a national and local level for the improved management and conservation of the WHS. These policies should ensure the maintenance of its OUV by protecting the physical fabric, character, appearance, setting and views into and out of the WHS. Relevant Management Plan policies should be incorporated within the Core Strategy and other relevant development plan documents within the Local Plan and additional WHS planning guidance produced.”

### **ICOMOS Guidance on Heritage Impact Assessments for Cultural World Heritage Properties 2011**

This guidance recognises that World Heritage Sites are single heritage assets with an international value but that not everything within them contributes to OUV. Those attributes that do must be appropriately protected. The guidance emphasises that an HIA is required to identify negative impacts very early on in the process, in order to inform both the development design and the planning process in a pro-active rather than reactive manner. It should identify how negative impacts can be avoided, reduced, rehabilitated or compensated. The guidance encourages consultation to ensure the most comprehensive understanding of these impacts as well as the detailed surveys with the most appropriate technology to produce valuable tools such as 3D modelling.

The Guidance encourages consultation on the HIA and its scope which it suggests should be agreed with all relevant parties, including the State Party, regional or local government or its agencies, any statutory consultees and local community representatives and the public.

### **The Setting of Heritage Assets Historic Environment Good Practice Advice in Planning Note 3 (Second Edition) (Historic England, 2017)**

The extent and importance of setting is often expressed by reference to visual considerations. Although views of or from an asset will play an important part, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust and vibration from other land uses in the vicinity, and by our understanding of the historic relationship between places.

### **Structure and focus of Written Representation**

The written representation takes into account the above policy context which is for the most part distilled into the WHS Management Plan aims and policies. The response therefore focuses on how the scheme aligns with the Management Plan; the fundamental framework for the management of change within the World Heritage Site. Effective management of a WHS is concerned with identification and promotion of change that will respect and enhance the Site and maintain its OUV, with the avoidance, modification or mitigation of changes that might damage this.

My representation offers an overview of how the scheme aligns with the aims and policies set out in the Management Plan. I have identified the most relevant of the 38 policies and looked at how the scheme either aligns or diverges from them. Where the alignment is slight or absent I have suggested how it might be either improved or achieved. Challenges indicate where issues exist in terms of alignment with the agreed management framework designed to safeguard the OUV of the WHS. I have indicated where there is insufficient modelling or detail to confidently support a reliable assessment.

I have also included a short section on other aims, policies and actions from the Management Plan not directly associated with the scheme. These include actions on which Highways England are not the lead partner but should note because in order to attain the full benefits of the scheme for the WHS they need to be progressed. A number of these are currently under development with the WHS partners led by the WHSCU with funding from Designated Funds. This includes the Exploring the WHS and Beyond project which encompasses landscape access, sustainable transport and sustainable tourism strategic strands. A Burrowing Animal Strategy is also under development. Briefs for both projects are nearing their final draft.

I have looked first at the bored tunnel and then separately at the surface elements of the scheme. I have commented on the surface elements in general and then on the specific elements





## 1. Twin Bored Tunnel

In this section, the comments are little changed from my response to the statutory consultation in 2018. This element of the scheme appears to align extremely well with the aims and policies of the WHS Management Plan which identifies roads and traffic as a major visible and aural intrusion in the rich archaeological landscape of the WHS. The traffic is described in the Plan as impacting negatively on the setting of multiple monuments that convey the attributes of OUV including Stonehenge, the round barrow cemetery on King Barrow Ridge and Winterbourne Stoke Barrows.

The bored tunnel would remove, over a substantial area, one of the major intrusive elements identified in the Statement of OUV: “the presence of busy main roads going through the World Heritage property impacts adversely on its integrity.” The Protection and Management Requirements set out in the Statement refer to the continued negative impact of the A303 on “the setting of Stonehenge, the integrity of the property and visitor access to some parts of the wider landscape.”

The bored tunnel would also have a positive impact on the following attributes of OUV: 3, 4, 5, 6 and 7. Over this substantial area of the WHS landscape the setting of as well as the interrelationships between the monuments and sites would be greatly enhanced. The removal of the A303 would also remove its intrusion on the midwinter sunset astronomical alignment. Following from these improvements and taken alone this below ground element of the scheme would have the effect of enhancing the landscape in a fairly extensive area of the WHS.

### **WHS Management Plan Alignment**

#### **Vision, aims, policies and actions**

The bored tunnel element of the proposed scheme is extremely well aligned with the WHS Management Plan. It delivers in a number of areas including the vision for the Site which seeks “to provide a tranquil [and] rural setting for its archaeology”. It would also help to create the necessary environment to “allow present and future generations to explore and enjoy the monuments and their landscape setting more fully” and open up opportunities for enhanced presentation and interpretation leading to increased understanding of the extraordinary achievements of prehistoric people.

This element of the scheme, placing the A303 in a bored tunnel and thereby removing it from this part of the landscape is particularly well-aligned with the following aims and policies of the Plan:

***Aim 3: Sustain the OUV of the WHS through the conservation and enhancement of the Site and its attributes of OUV.***

**Policy 3c** – Maintain and enhance the setting of monuments and sites in the landscape and their interrelationships and astronomical alignments with particular attention given to achieving an appropriate landscape setting for the monuments and the WHS itself

***Aim 4: Optimise physical and intellectual access to the WHS for a range of visitors and realise its social and economic benefits while at the same time protecting the WHS and its attributes of OUV.***

**Policy 4c** – Encourage access and circulation to key archaeological sites within the wider WHS landscape. Maintain appropriate arrangements for managed open access on foot within the WHS (taking into account archaeological, ecological and community sensitivities) to increase public awareness and enjoyment

***Aim 6: Reduce significantly the negative impacts of roads and traffic on the WHS and its attributes of OUV and increase sustainable access to the WHS.***

**Policy 6a** – Identify and implement measures to reduce the negative impacts of roads, traffic and parking on the WHS and to improve road safety and the ease and confidence with which residents and visitors can explore the WHS

Action 133 – seek a solution to the negative impact of the A303 on the WHS, its attributes of OUV and its setting in order to sustain OUV and enhance the Site’s integrity. Work with partners to identify such a solution that also addresses current and predicted traffic problems and assists in in delivery of social and economic growth.

**Achieving/improving alignment: considerations and recommendations**

The current scheme is for a 3.3km tunnel is closely aligned to the WHS Management Plan. The tunnel however emerges within the WHS landscape which leads to some major surface infrastructure within the WHS that do not align easily with a number of the key aims and policies. A longer bored tunnel delivering the benefits highlighted above over the whole length of the WHS would be desirable. This is discussed further below in relation to surface features of the scheme.

The surface presentation and management of access along the closed A303 should be designed to maximise the tranquil and rural setting in line with the WHS vision. The current proposal for a 4.5 m wide bound surface is unlikely to enable the full benefits of the bored tunnel element of the scheme to be realised. The approach to the redundant portion of the A360 and other NMU (Non-Motorised User) access will need to be agreed with WHS partners.

Action 83 to produce a WHS Landscape Access Strategy is a priority in relation to legacy work and maximising benefits. It is essential that there is an holistic approach to the design of a Rights of Way (RoW) network across the WHS which enables exploration of the wider landscape while protecting the attributes of OUV. Agreement on a suitable surface treatment of all RoWs which both protects the setting of monuments and the World Heritage Site landscape as a whole as well as physical remains will be important. Other options for encouraging exploration alongside defined paths should be explored such as extending open access land and improved digital options that encourage visitors to explore beyond defined paths. Any such schemes would need to be designed with the involvement of all land managers in the WHS. Two thirds of the WHS landscape is in private ownership.

The approach to agreeing the location, design and surfacing of the new additions to the RoW network needs to be agreed as part of the DCO process with one of the principles being that it delivers the aims and polices of the WHS Management Plan. The WHSCU should be consulted. The unfortunate and unsafe routing of a new RoW through the Stonehenge Visitor Centre car park will need to addressed. .

WHS partner organisation should work with stakeholders and the community to implement the policies and actions related to other aspects of access (physical, intellectual and emotional), sustainable transport, interpretation, sustainable development and community engagement. A number of these are currently being addressed by WHS partners led by the WHSCU with funding from Designated Funds. The Exploring the WHS and Beyond project encompasses landscape access, sustainable transport and sustainable tourism strategic strands. A Burrowing Animal Strategy is also under development. Briefs for both projects are nearing the final draft.

A detailed archaeological and heritage outreach and education programme within the DAMS should be included in Requirement 5 of the scheme to increase benefits related to the scheme.

Vehicular access to byways will need to be managed in line with policy 6b of the Management Plan to avoid damage to archaeology, improve safety and encourage exploration of the wider landscape. Ensuring the closure of BOATS (Byways Open to All Traffic) 11 and 12 to motorised traffic will benefit to the WHS and visitors. This should be considered as associated development as it is essential to the achieving a beneficial outcome that aligns with the policies of the WHS Management Plan. A key aim set out in the World Heritage Site Management Plan is to:

“Reduce significantly the negative impacts of roads and traffic on the WHS and its attributes of OUV and increase sustainable access to the WHS” (Aim 6). Policy 6a sets out the need to: “Identify and implement measures to reduce the negative impacts of roads, traffic and parking on the WHS and to improve road safety and the ease and confidence with which residents and visitors can explore the WHS”. The closure of the BOATS to motorised traffic aligns with Policy 6b to: “Manage vehicular access to byways within the WHS to avoid damage to archaeology, improve safety and encourage exploration of the landscape on foot”. Consideration will need to be given to maintaining access for emergency, operational and farm vehicles and landowners; also an objective of Policy 6b. It would also align with Policy 4c of the WHS Management Plan which encourages access and circulation to key archaeological sites within the wider WHS landscape and open access on foot which takes into account archaeological, ecological and community sensitivities.

Work will also need to be undertaken on the evolving identity and image of the WHS following this major change in the nature of the landscape and how people are able to relate to it. This work should also consider the relationship of Stonehenge to the Avebury half of the WHS. These related projects also apply to the surface elements of the scheme discussed below.

The Exploring the World Heritage Site project will help to deliver improvements in several of the above areas thereby enhancing the benefits which will be delivered to the WHS and its OUV by the below ground element of the scheme including socio-economic benefits.

Restrictions proposed on land use above the tunnel are inappropriate in the WHS as they could represent a constraint to research. An approach to this challenge needs to be agreed with WHS partners as part of the DCO process. If not amended this would deviate from Aim 7 of the Management Plan to Encourage and promote sustainable research to improve the understanding of the archaeological, historical and environmental value of the WHS necessary for its appropriate management. Maximise the public benefit of this research.

An overview of relevant Management Plan policies not directly related to the scheme but relevant to realising its full benefits is included as Appendix 2 below.

## **2. Related major infrastructure within the WHS and its setting: expressway and cuttings, green bridges, junctions**

This section will provide a brief overview of the challenges for aligning the development of major infrastructure within the WHS with the Management Plan aims and policies and the current scheme. This is similar for all the above surface elements of the scheme and does not need to be repeated in the consideration of each element.

Under each element the challenges are briefly highlighted. The issues that need to be considered in relation to the Management Plan aims and policies and approaches to improving this alignment where possible at this stage is the focus of this section.

Any major infrastructure development in an internationally important “landscape without parallel” will be a very great challenge. The Management Plan sets out a framework for managing change that will ensure the correct balance is given to protecting the OUV of the WHS: its primary aim. Checking the alignment of the scheme with the aims and policies should therefore be helpful in indicating the extent of its impacts.

A key challenge is minimising the impact on the attributes of OUV; not only the physical remains, attribute 2, but the relational attributes 3,4,5 and 6. The last is of particular complexity as it encompasses much of the landscape: “The disposition, physical remains and settings of the key Neolithic and Bronze Age funerary, ceremonial and other monuments and sites of the period, which together form a landscape without parallel.”

The Statement of OUV highlights the fact that “The monuments and landscape..... still retain a huge potential for future research.” Recent research has shown that there is an enormous amount to discover across the whole landscape to improve our understanding of the period and the use of the landscape by the people at that time. This makes it more challenging to identify an area of the landscape where major infrastructure development can take place without loss of this internationally recognised resource. In addition, it sets out the fact that the WHS “provides an outstanding illustration of the evolution of monument construction and of the continual use and shaping of the landscape over more than 2,000 years, from the early Neolithic to the Bronze Age.” Any infrastructure introduced into the WHS needs to avoid the use of over-engineered solutions that would make the results of this process less legible.

Locating infrastructure sensitively is a key challenge particularly as the spaces between the monuments are extremely important to understanding how the landscape was used and evolved in the Neolithic and Early Bronze Age period. The absence of monuments or remains is not an indication that development will not harm the WHS. In addition, new infrastructure within the setting of the WHS needs to be considered for its impacts on the WHS. Policy 59 of the Core Strategy states that the setting and views in and out of the WHS need to be protected from inappropriate development. In some cases, this may have a more harmful impact on the attributes of OUV than alternatives within the boundary. Impacts of infrastructure in the setting of the WHS need to be assessed as part of the HIA. At present some of the monuments or viewpoints may have been scoped out as there has been a focus

visual rather than contextual setting the HIA. Although the WHS Setting Study has not yet been produced it is still possible to undertake this work with reference to the attributes of OUV and the Historic England Setting of Heritage Assets Good Practice Advice.

### **Management Plan Alignment Vision, aims, policies and actions**

In addition to the location, the design of the new infrastructure will need to be very sensitive to the landscape. The Management Plan vision prioritises a tranquil rural setting and the design should adhere to this. It should be noted that the Statement of OUV highlights the evidence provided “of prehistoric technology, architecture and astronomy.” Criterion i refers directly to the WHS demonstrating outstanding creative and technological achievements in prehistoric times. The design of portals, junction and other infrastructure should not compete with this element of the OUV remaining as low key as possible.

As mentioned in discussion of the bored tunnel above, the vision, aims and policies of the Management Plan also highlight the need for access to “allow present and future generations to explore and enjoy the monuments and their landscape setting more fully”. Aim 6 of the Management Plan is to reduce significantly the negative impacts of roads and traffic on the WHS and its attributes of OUV and increase sustainable access to the WHS. Policy 6a elaborates on this: Identify and implement measures to reduce the negative impacts of roads, traffic and parking on the WHS and to improve road safety and the ease and confidence with which residents and visitors can explore the WHS. The bored tunnel delivers very well on this policy, but these are more difficult challenges for the surface infrastructure related to the project.

Other policies of note in relation to the development of the surface elements of the scheme include Policy 3c: Maintain and enhance the setting of monuments and sites in the landscape and their interrelationships and astronomical alignments with particular attention given to achieving an appropriate landscape setting for the monuments and the WHS itself. In addition 1e which requires development to minimise light pollution to avoid adverse impacts on the WHS, its setting and its attributes of OUV. This will need to be considered in relation to the design of all elements of the project and include consideration of the car head and tail lights themselves.

Another relevant policy is 3i. This is related to the management of woodland within the WHS which should be designed to both sustain and enhance the OUV of the WHS. A key element of this is restoring intervisibility as part of the relational aspects of OUV. The Stonehenge and Avebury WHS Woodland Strategy produced for Natural England has mapped opportunities for this enhancement which in some cases is significant. It is important that the surface elements of the scheme do not rely on tree cover to screen their impact on the landscape but seek other methods to achieve this. Relying on existing cover could in some areas take away the opportunity for enhancement of OUV. This is in line with Historic England’s guidance The Setting of Heritage Assets that emphasises tree cover should not be used to mitigate unsuitable development.

A further item to note is the need to protect the setting of the WHS as mentioned above. This will have relevance to the junctions and onward routes of the roads and related infrastructure in so far as its impacts on the attributes of OUV within the WHS. This is reflected in the Management Plan policy 1d: Development which would impact adversely on the WHS, its setting and its attributes of OUV should not be permitted. The complexity of setting issues should be born in mind as set out in Historic

England's Guidance The Setting of Heritage Assets (2014), setting is not only visual in nature but includes a range of physical and experiential aspects such as context and tranquility.

The Wiltshire Core Strategy Policy 59 underlines the priority of protecting the OUV of the WHS and its complex dimensions across the landscape and beyond. It requires the applicant to demonstrate that full account has been taken of the impact of the proposal upon the World Heritage Site. The proposal should demonstrate that the development will have no individual, cumulative or consequential adverse effect upon the WHS and its OUV. This includes the physical fabric, character and appearance, setting or views into or out of the WHS. It also requires that any development demonstrates due consideration of opportunities for enhancing the World Heritage Site and its OUV. In addition, development should support and maintain the positive management of the WHS improving its conservation, presentation and interpretation.

Policy 7a of Management Plan encourages sustainable archaeological research of the highest quality in the WHS, informed by the WHS Research Framework. It is important that any development does not jeopardise this important aspect of the WHS.

### **Achieving/maximising alignment: considerations and recommendations**

As discussed above there are a number of policy challenges in relation to building major infrastructure within the WHS landscape. The current proposal although it seems to be very positively aligned in relation to the bored tunnel, would appear to require some substantial mitigation related to above ground infrastructure to assist in aligning it with the Management Plan aims and policies. This applies particularly to the western portal and expressway.

The challenges for alignment are listed below under each element of the surface scheme. The level of challenge in mitigating this is also signalled and suggested approaches for exploring possible mitigation. The bedrock should be the production of an extremely robust HIA in line with ICOMOS guidelines for cultural WHSs. As recommended it should include detailed modelling sufficient to fully assess whether the attributes of OUV will be protected by any proposed solutions. The process of producing this HIA should be consultative as set out by ICOMOS and involve key experts with a high level of knowledge, experience and expertise. Highways England should have been able to respond to the results of HIA and adapt their scheme during its development prior to the commencement of the DCO process.

The HIA produced is to be welcomed. It contains valuable detail in some areas but has not produced the level of detail in its modelling that we requested during the consultation phase. There was no meaningful consultation with partners beyond HMAG in its preparation thereby missing the opportunity for greater robustness and breadth. The timing of its production was also somewhat late to allow an iterative role in the design process. The lack of detailed design has also made it difficult for the HIA to fully assess impacts on the WHS and its OUV. The ICOMOS guidance emphasises that the HIA is required to identify negative impacts very early in the process, to inform both the development design and the planning process in a pro-active rather than reactive manner. It would be helpful if the HIA could be further developed during the DCO process to assist in addressing several of the points listed below to if possible achieve improved alignment with the Management Plan.

## **2.1 Eastern Section**

### **Maximising/improving alignment**

The position to the east of the Avenue allowing for the reinstatement of the route of the monument aligns well with policy 3e of the WHS Management Plan as it provides the opportunity to make buried or obscured monuments more visible. This could offer interpretation and access gains. There should be consideration of how to maximise benefits for the reinstated route of the Avenue. Approaches to access needs to be considered and designed in where possible.

## **2.2 Western Section**

### **Maximising/improving alignment**

The canopy over the approach to the tunnel portal in the western part of the WHS extends the length of expressway or new dual carriageway in the WHS that is concealed to over 3kms including the bored tunnel. This helps to mitigate the impact of the dual carriageway on views between the Winterbourne Stoke, the Diamond and the Normanton Down barrow groups. Although the additional covered section of road and the deeper, steeper sided-cutting design would be less intrusive in the landscape and offer very marked improvement over the previous options there is still considerable severance. Although this impacts negatively on the integrity of WHS landscape in this area generally, it is a particular issue between the Winterbourne Stoke and Diamond Barrow groups. These impacts would require mitigation to better align with the aims and policies of the WHS Management Plan. Extending the bored tunnel out of the WHS would address this issue.

In the absence of such a solution, the Green Bridge 4 at 150m in width provides some mitigation but it is still insufficient to align with the Management Plan and adequately reduce severance and boost integrity. There is still an adverse visual and physical severance due the cutting between key barrow groups particularly the Winterbourne Stoke, Diamond and Normanton Down Groups. Further mitigation options should be explored. Issues such as the impact of headlights passing under and out of the covered section have not yet been modelled. Further work should be done on identifying how to avoid impacts on the barrow groups and other monuments in this area in particular those at Winterbourne Stoke, the Normanton Down Group and the Diamond Group.

Modelling of alternative design solutions in this area such as a complete cover would help to assess the proposal and compare its benefits with other possibly more beneficial design options. It should assist in arriving at a recommendation that would address the decision of the World Heritage Committee in 2018 which urged the State Party “to continue to explore further design refinement, with a view to avoiding impact on the OUV of the property, including longer tunnel options that do not require an open dual carriageway cutting within the property and to avoid impact due to noise, lighting and visibility; and urges furthermore, the State Party to minimize the length of the culvert part of the tunnel in order to reduce the impact on the cultural landscape and the archaeology”. (UNESCO Decision: 42 COM 7B.32).

The submission documentation appears to provide inadequate consideration of alternatives and justification for the current proposal. Alternative options were dismissed on cost grounds as set out in 3.3.61 of the EIA. It is unclear whether the importance and value of protecting OUV was correctly weighted in coming to this conclusion. The EIA and HIA both indicate adverse impacts on the WHS and its OUV in this area and more needs to be done to address this. Currently it deviates from the aims and policies of the Management Plan and policy framework.

A virtual reality modelling of walking over the Green Bridge would provide valuable perspective alongside other evidence on how the scheme would impact on the experience of the WHS landscape and to what extent the proposed 150 m wide green bridge would mitigate this. The need for this modelling would of course be unnecessary if the cutting were to be covered or the tunnel extended.

Currently there is an allowance for a 200m deviation for the western portal. Lack of clarity on limits of deviation (LoD) could result in unforeseen negative impacts on the WHS and its OUV. An agreed detailed design allowing for accurate modelling and adequate mitigation is required. This the case wherever such LoD are in place.

Covering the gap between the tunnel canopy and the Green Bridge would enhance both visual and physical links between barrow groups and other archaeological features as well as their settings. It would also provide better opportunities for exploration of the WHS and movement through it with the concomitant enhancement of visitors experience and understanding of the WHS. Unlike a bored tunnel, this would not avoid possible impacts on physical remains and potential future discoveries that might come about through technology yet to be designed would still be compromised. The impact on transmission to future generations can only be a matter of conjecture.

### **Challenges**

The funerary and mortuary aspect of the WHS is fundamental to its OUV. Criterion iii states that the Stonehenge and Avebury landscapes offer an exceptional insight into the funerary practices in Britain in the Neolithic and Bronze Age. The Statement elsewhere elaborates on the importance of the insight into changing mortuary culture of the periods provided by the WHS. Recent research into the Stonehenge landscape has indicated that this area was the focus of Early Neolithic and Bronze Age activity. The proposed cutting and associated features would have an impact on the setting inter-connectivity of monuments ranging from the Neolithic to the Early Bronze Age in the area including a group of long barrows and associated burials ranging in time up to the Early Bronze Age. Archaeologists expert in the area have also found evidence of contemporary occupation in the area the cutting will pass through. There is substantial future research potential in this area. This impact is not fully reflected in the HIA. Only a bored tunnel extending beyond the WHS could mitigate this particular adverse impact.

### **2.3 Countess Junction Flyover A303/A345**

#### **Maximising/improving alignment**

In line with the vision for the WHS, Aim 6, Policy 6 and Policy 3c the design of the junctions should be as unobtrusive as possible to create a rural and tranquil setting. Engineering design should be modest and light pollution avoided in line with Policy 1e by not lighting the junction or roads. Signage should be kept to a minimum.

The proposed flyover would need careful assessment of possible impacts on the WHS through visual and aural modelling. The results should then inform the solution which should include the least urban and intrusive design possible. Further modelling and design work would be beneficial and a process for agreeing design details by relevant WHS partners including the WHSCU before any work commences if the scheme is approved. Design principles and parameters should be agreed throughout the WHS and its setting to ensure the most sensitive solution both in scheme design and in the future. A version of such principles is already in place for Avebury. The design of lighting as well as road markings, signage



and boundary treatments have the potential to either increase or mitigate the impact of roads on the surrounding landscape.

## **2.4 Longbarrow Junction A303/A360**

Maximising/improving alignment with WHS Management Plan

The comments above on design and lighting at Countess are equally relevant to Longbarrow Junction. The new location is beneficial to the setting of the Winterbourne Stoke Barrow Group and the Diamond Group. More detailed modelling would assist in elucidating the nature of remaining impacts on the WHS and design solutions to mitigate these. It will be important to adhere to the stated aims of minimising lighting on the road and junctions both within the WHS and in its setting to align with policy 1e. Enhancing dark night skies is an important element in protection of astronomical alignments described in attribute 4 of OUV.

## Conclusion

The review of the scheme against the WHS Management Plan framework offers a valuable perspective on the overarching suitability of the scheme. The bored tunnel element of the project is very well aligned with the Management Plan aims and policies. It has the possibility to transform the central part of the WHS and could be seen as a major step forward in the achieving the vision for the WHS set out in the Management Plan. WHS Partners will need to continue to work together to deliver the related aims and policies in the Management Plan that will enable the greatest benefit from any scheme that is delivered.

The scheme however also introduces sections of new dual carriageway into the landscape in a sensitive area as well as two substantial tunnel portals and complex junctions with consequential engineering development at both the eastern and western edge of the WHS. This introduces a number of significant harmful impacts in a previously undisturbed area of the WHS landscape and deviates from the aims and policies of the Plan.

There appear to be opportunities for allaying many of these impacts in the east if great sensitivity is applied to the design of the eastern portal and junction at Countess Roundabout. The design will need to be based on exemplary studies and modelling that accurately identify all negative impacts. This has yet to be evidenced. It is essential that the detailed design work is complete to the satisfaction of relevant WHS partners and stakeholders before permission to begin work is granted. A process should be agreed for the decision making to allow for meaningful input from relevant WHS partners including the WHSCU.

In the west substantial challenges remain despite the current 150 m wide green bridge and extended canopy. There is insufficient evidence of adequate mitigation in the submission. A process of iterative design based on extensive and detailed modelling would be necessary to explore this more effectively. The HIA although detailed and appropriate in some areas relies on simple photomontage from asset group rather than providing a more rigorous assessment of impacts on attribute 6 and on visitors moving through the landscape. Photomontage evidence has been relied on in the HIA. A more accurate assessment of impacts on the attributes of OUV (including attribute 5 - the siting of Neolithic and Bronze Age funerary and ceremonial sites and monuments in relation to each other, and attribute 6 - the disposition, physical remains and settings of the key Neolithic and Bronze Age funerary, ceremonial and other monuments and sites of the period, which together form a landscape without parallel) would include flythrough or virtual reality modelling. This approach would better reflect the impact on the experience of the attributes of those visiting and moving through the landscape. For an asset of this significance the most advanced modelling, where appropriate, is justifiable. Its results would also assist with detailed design of solutions.

Lack of design detail makes it difficult to accurately assess impacts. Although detailed design may not normally be provided at this point in the DCO process, the great sensitivity and international importance of the WHS landscape make it essential that decisions are reached in way that will not result in adverse impacts on the WHS and its OUV. This could be as part of the DCO process or an agreed process of consultation with WHS curators and stakeholders.

Further detail is required in other areas. A detailed archaeological mitigation strategy is required as well as a detailed Environmental Management Plan. Detail on the implementation phase is also required to ensure adverse impacts on the WHS are avoided. Impacts on the Avebury half of the WHS need to be carefully considered and any necessary mitigation measures put in place.

The obligation to protect the WHS and its OUV makes it inadvisable to proceed with the scheme in its current form unless adequate mitigation can be designed, evidenced and provided across the whole WHS. If this

proves impossible, harm should be avoided by detailed consideration of a longer tunnel taking the portals to beyond the WHS boundary and away from the most significant elements of its setting. A more detailed consideration of a surface route bypassing the WHS could also be revisited such as F10 which bypassed the WHS to the south of the WHS. F10 although scoring very favourably for Cultural Heritage against the Client Scheme Requirements and Highways England WebTAG assessment was not taken forward to consultation as it scored less favourably in relation to other criteria. It is imperative to ensure that any scheme is reviewed in relation to its fit with other major development both current and potential in the area such as army rebasing, developments at Boscombe Down and additional housing development locally. This will help to ensure that cumulative and consequential impacts on the WHS and its OUV are avoided or at the very least mitigated.

Any assessment of impact and cost/benefit and approaches to balancing adverse and beneficial impacts needs to take into account the value of OUV as defined by UNESCO: "cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of this heritage is of the highest importance to the international community as a whole." Where possible adverse impact however slight should be avoided.

It is important that WHS partners and stakeholders continue to work together throughout the examination process to find a scheme that aligns with the aims and policies of the WHS Management Plan and that can be delivered.

## Appendix A

### WHS Management Plan 2015: Aims, Policies and Actions most relevant to the proposed scheme

#### PLANNING and POLICY

**Policy 1d** – Development which would impact adversely on the WHS, its setting and its attributes of OUV should not be permitted

**Policy 1e** – Minimise light pollution to avoid adverse impacts on the WHS, its setting and its attributes of OUV

#### CONSERVATION

**Aim 3:** *Sustain the OUV of the WHS through the conservation and enhancement of the Site and its attributes of OUV.*

**Policy 3c** – Maintain and enhance the setting of monuments and sites in the landscape and their interrelationships and astronomical alignments with particular attention given to achieving an appropriate landscape setting for the monuments and the WHS itself

**Policy 3e** – Conserve and/or make more visible buried, degraded or obscured archaeological features within the WHS without detracting from their intrinsic form and character

**Policy 3i** – Sustain and enhance the attributes of OUV through woodland management while taking into account the WHS's ecological and landscape values

#### VISITOR MANAGEMENT and SUSTAINABLE TOURISM

**Aim 4:** *Optimise physical and intellectual access to the WHS for a range of visitors and realise its social and economic benefits while at the same time protecting the WHS and its attributes of OUV.*

**Policy 4c** – Encourage access and circulation to key archaeological sites within the wider WHS landscape. Maintain appropriate arrangements for managed open access on foot within the WHS (taking into account archaeological, ecological and community sensitivities) to increase public awareness and enjoyment

#### ROADS and TRAFFIC

**Aim 6:** *Reduce significantly the negative impacts of roads and traffic on the WHS and its attributes of OUV and increase sustainable access to the WHS.*

**Policy 6a** – Identify and implement measures to reduce the negative impacts of roads, traffic and parking on the WHS and to improve road safety and the ease and confidence with which residents and visitors can explore the WHS

Action 133 – seek a solution to the negative impact of the A303 on the WHS, its attributes of the OUV and its setting in order to sustain OUV and enhance the Site's integrity. Work with partners to identify such a solution

that also addresses current and predicted traffic problems and assists in in delivery of social and economic growth

## **RESEARCH**

**Aim 7:** *Encourage and promote sustainable research to improve understanding of the archaeological, historic and environmental value of the WHS necessary for its appropriate management. Maximise the public benefit of this research.*

**Policy 7a** – Encourage sustainable archaeological research of the highest quality in the WHS, informed by the WHS Research Framework

## **Appendix B**

### **Management Plan 2015: Aims, Policies and Actions not directly related to the scheme but relevant to realising its full benefits**

#### **CONSERVATION**

**Policy 3d** – Improve the WHS landscape by the removal, redesign or screening of existing intrusive structures such as power lines, fences and unsightly buildings where opportunities arise

**Policy 3h** – Explore and develop synergies between the historic and natural environment to benefit the WHS and the maintenance of its OUV. Maintain and enhance the overall nature conservation value of the WHS, in particular: maintain, enhance and extend the existing areas of floristically rich chalk downland turf; enhance the biodiversity of permanent grassland to extend the area of species-rich grassland and provide habitat for birds, invertebrates, bats and other wildlife.....

#### **VISITOR MANAGEMENT and SUSTAINABLE TOURISM**

**Policy 4a** – Management of visitors to the WHS should be exemplary and follow relevant national and international guidance on sustainable tourism.

*Action 71: Produce a WHS Sustainable Tourism Strategy with WHS partners...*

**Policy 4b** – Spread the economic benefits from tourism related to the WHS throughout the wider community

**Policy 4d** – Manage special access at Stonehenge for significant occasions including solstices, and for stone circle access outside opening hours for small groups and all open access at Avebury to avoid harm to the WHS and its attributes of OUV

#### **INTERPRETATION, LEARNING AND COMMUNITY ENGAGEMENT**

*Aim 5: Improve the interpretation of the WHS to increase understanding and enjoyment of its special characteristics and maximise its educational potential. Engage the local community in the stewardship and management of the WHS.*

**Policy 5a** – Improve the interpretation both on and off site to enhance enjoyment and appreciation of the WHS

**Policy 5b** – Develop learning opportunities offered by the WHS both on and off site

**Policy 5c** – Promote community involvement in the WHS to increase a sense of ownership

**Policy 5d** – Artists and the creative sector will offer new and inspiring ways for communities and a wider range of visitors to engage with and learn about the OUV of the WHS and the wide range of artistic responses to it both past and present

**Policy 5e** – Present a unified Stonehenge and Avebury WHS identity and message

#### **ROADS and TRAFFIC**

**Policy 6b** – Manage vehicular access to byways within the WHS to avoid damage to archaeology, improve safety and encourage exploration of the landscape on foot whilst maintaining access for emergency, operational and farm vehicles and landowners

**Policy 6c** – Take measures through sustainable transport planning to encourage access to the WHS other than by car