

THE STONEHENGE ALLIANCE

Chairman, George McDonic, MBE, BL, DIPLTP, FRTPI, DPA, FFB

From the Hon. Secretary, Dr Kate Fielden

The Rt. Hon. Grant Shapps, MP,
Secretary of State for Transport,
C/O Ms Susan Anderson,
Head of Transport Infrastructure Planning Unit,
Great Minster House,
33 Horseferry Road,
London SW1P 4DR.

Sent by email on 28 May 2020 to:
TRANSPORTINFRASTRUCTURE@dft.gov.uk and
A303Stonehenge@planninginspectorate.gov.uk

Dear Secretary of State,

A303 Stonehenge

We are grateful for the opportunity to comment on responses to your request for comments and further information on various issues in a letter of 4 May 2020 addressed to Highways England, Historic England and Natural England.¹ Our comments on responses to two of these issues are set out below.

We also raise a matter of continuing concern to us in respect of missing information we believe to be crucial to understanding the practicalities and consequences for archaeology and the environment of tunnelling within the World Heritage Site.

Our comments on responses

6. OEMP, MW-CH8 – Ground Movement Monitoring Strategy and 8. DAMS, para 5.2.8 – Ground movement monitoring stations

We note that Highways England, in its response, refers to its record of these matters discussed at the Examination.² We referred to the same record in our letter to you of 16 May 2020, where the applicant concurred with the fact that:

¹ Email to Kate Fielden of 22.5.20 from Rob Pridham, DfT, copied to Roh Hathlia and Susan Anderson.

² Exam. Doc. REP8-016, Highways England, Written summary of oral submissions put at cultural heritage, landscape and visual effects and design hearing on 21 August 2019
(<https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001598-Highways%20England-8.52.1%20Written%20summary%20of%20ISH%208%20held%20on%20CH,%20LV%20and%20design.pdf>),
Section 4.3iv.

“ . . . the submissions made by parties (Historic England, Stonehenge Alliance, ICOMOS UK) in relation to the appropriate method for monitoring settlement and impacts on archaeology indicated agreement in terms of there being no standard criteria for protecting heritage assets from settlement or vibration, due to the unique and varying sensitivity of such assets.”

And went on to say there was similar agreement that:

“ . . . there is no standard threshold for construction vibration levels significantly affecting archaeological earthworks, such as burial mounds, and buried assets, due to the unique and varying sensitivity of such assets.” And that

“ . . . there is no standard threshold for tunnelling induced ground movements affecting archaeological earthworks such as burial mounds and buried assets due to the unique and varying sensitivity of such assets.”

Historic England’s concerns on this issue, as expressed in its record of the Examination hearing on 21 August 2019,³ appears to concentrate on the impact of ground movement on Scheduled monuments (the locations and nature of which are generally known) and the perception of certain kinds of Scheduled monument as ‘buildings’. The locations and nature of unknown archaeological remains that might be affected by vibration or ground movement may possibly be covered by Historic England’s statement:

*“ . . . we remain in discussion about the information collected as part of Highways England’s assessment to date and how that might be helpful to us as a statutory consultee and the Government’s adviser on the historic environment to assist in answering the difficult question surrounding the identification of the appropriate triggers on a case by case basis with respect to the sensitive cultural assets that the Scheme has potential to affect.”*⁴

In responding to the Secretary of State’s request for comments and further information on this topic, Historic England expressed a wish to be involved in approving trigger levels and correctly pointed to the requirement for understanding the differing nature of archaeological remains that might be affected:

*“Identifying the trigger levels requires an understanding of the impact of settlement on archaeological structures, remains and deposits . . .”*⁵

³ Exam. Doc. REP8-041, Written summaries of oral submissions put at hearings held between 21 - 22 August and 29 - 30 August on behalf of the HBMCE (Historic England): <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001637-Historic%20England-Written%20Summaries%20of%20oral%20submissions%20at%20Issue%20Specific%20Hearings.pdf>, pp.8–9; and Exam. Doc. REP9-038: Submissions at deadline 9 (25 September 2019) on behalf of the HBMCE (Historic England): <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001719-Historic%20England-Resposne%20to%20Deadline%209.pdf>, paras. 3.2.36 and 3.2.37.

⁴ Exam. Doc. REP8-041, para. 3.9 (see Note 3, above, for link).

⁵ Dr Helen Woodhouse to Susan Anderson, 18.2.20: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001947-Historic%20England%20-%20Response%20to%20SoS%20Consultation%201.pdf>.

Historic England has not, however, indicated to you that they now possess the relevant “understanding” and expertise to agree such trigger levels for known or unidentified archaeological remains. Nor, as we pointed out in our response to you of 16.5.20, is the unstable geology of the WHS – which is obviously relevant – fully understood.

Wiltshire Council does not refer to discussion on this issue in its record of oral submissions on ground movement.⁶ In responding to the Secretary of State’s request for comments and information, however,

“The Council considers ground movement monitoring for archaeological assets as quite a specialist area, due to monitoring normally being undertaken to minimise the effect on buildings or people, which would obviously be subject to different trigger levels due to the nature of their construction or impact. Wiltshire Council is therefore intending to appoint a specialist contractor to advise the Council on the appropriate trigger levels for heritage assets and corresponding monitoring regime. This advice would be reflected within the Council’s consultation response on the GMMS and form a key consideration during its approval of the relevant sections within the Heritage Management Plans.”⁷

It is clear from the above notes and responses that there has been no advance in knowledge since the Examination on the accurate setting of trigger levels for ground movement that could affect archaeological remains other than buildings. Wiltshire Council intends to appoint a specialist contractor to advise but we question whether such a specialist exists and whether he/she could be supplied with all the relevant data about the geology and unknown archaeology. We would therefore again refer you, please, to our views expressed on this matter in our letter to you of 16 May 2020.

It was pointed out at the Examination that this World Heritage Site of outstanding international archaeological importance is not the place to test what trigger levels would be sufficiently accurate to ensure no damage.

Comments concerning the Scientific Committee under
9. DAMS, paragraph 6.3.16 – Ploughzone Sampling and
10. DAMS, paragraph 6.3.51 – Tree Hollows

In its letter to the Secretary of State, the Applicant says that:

⁶ Wiltshire Council (A303-AFP022) Written summaries of oral submissions put at the Issue Specific Hearings held in August 2019: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001628-Wiltshire%20Council%20-%20Written%20Summaries%20of%20oral%20submissions%20at%20Issue%20Specific%20Hearings.pdf>, pp.2-5.

⁷ Parvis Khansari to Susan Anderson, 18.5.20: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001946-Wiltshire%20Council%20-%20Response%20to%20SoS%20Consultation%201.pdf>.

“The Scientific Committee consists of independent experts and is not required to provide a consensus view, but rather to capture the full range of expertise and advice of the Committee’s membership.”⁸

Historic England, in its letter, implies that the Scientific Committee is independent of HMAG, and, like the Applicant, neglects to explain that HMAG representatives are members of the Scientific Committee. Wiltshire Council admits that the Scientific Committee includes HMAG members. All three respondees point to the difficulties arising from differing advice where consensus is not sought.

It is significant, however, that opposition to the scheme and cogent objections to specific elements of it were raised at the Examination by leading specialists who are independent members of the Scientific Committee.

Continuing concern about missing information

There is a matter of considerable importance in respect of information withheld and missing from scrutiny both at and following the A303 Stonehenge Examination.

Dr George Reeves,⁹ geologist and hydrogeologist speaking for the Alliance, repeatedly drew attention to key missing data during the Examination.¹⁰ After the Examination and following a Freedom of Information request, some data was released to us later by Highways England but this was incomplete.¹¹ Although we were informed that some additional information

⁸ Derek Parody to Susan Anderson, 18.5.20: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001948-Highways%20England%20-%20Cover%20Letter.pdf>.

⁹ Dr. George M Reeves CGeol PhD MSc BSc FGS

¹⁰ For example (and finally), G.M. Reeves, Deadline 9 Submission - Response to Highways England Deadline 8 Documents by Dr George Reeves for the Stonehenge Alliance <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-001706-Stonehenge%20Alliance%20-%20Response%20to%20Highways%20England%20Deadline%208%20Documents%20by%20Dr%20George%20Reeves.pdf>.

¹¹ 11. Letter to Dr Fielden from Derek Parody, Highways England, 17.12.19. In respect of the following information we had requested on 7.10.19, via FoI:

“All original ground investigation data (drilling records, borehole logs, geophysical logs, unpublished groundwater testing data) which support the published "Groundwater Reports". The first drafts of these reports that were made available contained little if any of the original field and supporting data; the only versions of these reports, now on the A303 Stonehenge Examination website were reissued to the Examination on 4th June 2019 as "Tracked Changed" documents. Much basic field investigation data has still not been made available relevant to the work reported in these documents”

Mr Parody stated in his letter that

would be released to us once it had been made available to the bidders for construction of the Scheme, we have not received it yet.

Some relevant information, most notably on groundwater pumping tests, was added to the Examination documents during the Examination.¹² These tests were undertaken during the summer months of 2018 and, despite generally dry conditions, indicate that high volumes of groundwater were encountered. Pumping tests at the same boreholes were to be undertaken during the winter months but these were delayed by legal proceedings and have not yet been done.¹³ The data from these not-yet-undertaken groundwater pumping tests are crucial to the understanding of the potential need for dewatering during tunnel construction in conditions where seasonal fluctuations in groundwater level are known to be up to 15m; this is especially significant for cross-passage construction where grouting to affect the permeability in the bedrock is impractical.

It was only as a result of the aforementioned Freedom of Information request by Stonehenge Alliance that much (but it is suspected not all) of the detailed supporting Site Information data obtained by Structural Soils (in Autumn 2018) and by Geotechnics Ltd. (during 2019), was released to us at the end of December 2019. This information, in part, provides the necessary detailed geological, geotechnical, hydrogeological and geophysical data upon which these pumping test results and consequent groundwater modelling reports by Highways Agency consultants, were based.

It is obviously imperative to thoroughly test and therefore to be able to predict expected groundwater inflows especially along the eastern portion of the proposed tunnel route: i.e., from Stonehenge Bottom to the eastern portal. This work has not yet been completed.

“Releasing the requested information before the shortlisted contractors have received an Invitation to Participate in Dialogue could compromise the competitiveness and effectiveness of the procurement process and result in increased cost to the taxpayer.” and “The information will be made available at the same time that it is released to bidders.”

¹² E.g., additional submission accepted at the discretion of the ExA - Stonehenge Area Pumping Test 2018 Interpretative Report, by AECOM, Mace, WSP and dated April 2019 and published on 10.4.19: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-000571-AS%20-%20Highways%20England%20-%20Stonehenge%20Area%20Pumping%20Test%202018%20Interpretative%20Report.pdf>; and Deadline 3 Submission - 8.22 – Stonehenge Area Pumping Test 2018 Interpretative Report: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-000986-Highways%20England%20-%208.22%20%E2%80%93%20Stonehenge%20Area%20Pumping%20Test%202018%20Interpretative%20Report.pdf>.

A ‘Working draft’ was published at the same time: AECOM, Mace, WSP, Stage 4 – Implications of 2018 Ground Investigations to the Groundwater Risk Assessment, Working Draft: <https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010025/TR010025-000572-AS%20-%20Highways%20England%20-%20Stage%204%20%E2%80%93%20Implications%20of%202018%20Ground%20investigations%20to%20the%20groundwater%20risk%20assessment.pdf>.

¹³ John Philip Sawkill v. Highways England Company Ltd., QBD, Case No: CO/3310/2019: [https://www.bailii.org/cgi-bin/format.cgi?doc=/ew/cases/EWHC/Admin/2020/801.html&query=\(CO/3310/2019\)](https://www.bailii.org/cgi-bin/format.cgi?doc=/ew/cases/EWHC/Admin/2020/801.html&query=(CO/3310/2019)).

Groundwater control, dewatering and/or grouting will also influence the groundwater regime further east as far as the Amesbury Abbey/Blick Mead spring discharge system. This evaluation work has not yet been carried out in any detailed or thorough manner.

Furthermore, the 2018 pumping tests undertaken confirmed incidence of horizontal and vertical fractures and fissures in the bedrock which have obvious implications, as we have already raised, during the Examination and elsewhere, with impacts on archaeology from settlement,¹⁴ along with effects on present abstractors and their groundwater supplies.

Dr Reeves is therefore of the opinion that without the winter session of pumping tests data, it is not possible for Interested parties such as ourselves (or potential tenderers) to comment fully on the implications of the proposed tunnelling in terms of its impacts on domestic and commercial boreholes, archaeology, and contamination of the River Avon SAC. Nor, indeed, would it be possible for bidding contractors to fully ascertain the implications for tunnel engineering.

We wrote to the Inspectorate about this matter on 8 April 2020 and were advised that our email had been forwarded to the Department for Transport. We hope that you will wish to delay any decision on the A303 Stonehenge Scheme until such time as the planned winter session of pumping tests has been undertaken and Interested Parties have been allowed the opportunity to comment on them.

The major significance of the absence and/or unavailability of groundwater data, as outlined above, will be to:

- (i) prevent any tendering contractors from providing an accurate, realistic quotation for the project; *and*
- (ii) result in a wholly inadequate, unrealistic and highly optimistic timetable for completion of the proposed project.

We therefore draw to your attention, and again, inter alia to that of the Planning Inspectorate Panel, that a significant amount of highly relevant groundwater information was not only unavailable at the 2019 Examination, but is still not yet available to Highways England and consequently cannot be properly assessed in the tendering process for this proposed major infrastructure project.

Yours sincerely,

(Dr) Kate Fielden
Hon Secretary to the Stonehenge Alliance

¹⁴ Response to Secretary of State Consultation 1: <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR010025/TR010025-001944-Stonehenge%20Alliance%20-%20Response%20to%20SoS%20Consultation%201.pdf>.