

From: [REDACTED]
To: [A303 Stonehenge](#)
Cc: [REDACTED]
Subject: FW: Blick Mead submission
Date: 03 May 2019 17:20:44
Attachments: [CHRONOLOGY OF EVENTS CONCERNING PROPOSED MONITOING OF LOCAL WATER TABLE AT BLICK MEAD.docx](#)
[mrrb 02-05-2019 14-23-10.pdf](#)
[Prof David Jacques statement re meeting of 6.12.18.msg](#)
[Statement 17042019.docx](#)
[Blick Mead significance submission by Prof Jacques.docx](#)
[Stonehenge - Prof Brown Professional Assessment of the A303 Amesbury to Berwick Down TR010025 \(003\)-2.docx](#)
[FW Written Questions from the Examining Authority.msg](#)
Importance: High

Dear Sirs,

On behalf of the Consortium of Archaeologists and the Blick Mead Project, I am submitting this written representation on the specific issue of the significance of the Blick Mead site and the risk that it might be damaged or even entirely sterilised by the proposed infrastructure of the proposed tunnel scheme. This is one of the issues we identified in our relevant representation of 11.1.19 and in response to the Rule 6 letter inviting us to make representations at the preliminary meeting of 2.4.19.

I have attached the following documents above:

1. Chronology
2. Bundle of relevant correspondence
3. Statement of Prof Jacques re site meeting 6.12.18
4. Statement of Siv Hveberg re site meeting of 21.12.18
5. Submission by Prof Jacques re significance of Blick Mead
6. Submission of Prof Brown re hydrological issues
7. Replies to ExA's written questions on the issue of monitoring of the water-table at Blick Mead

Our submissions on this issue are in three parts:

1. The issue of water-table monitoring at Blick Mead – please refer to the attached Chronology of meetings and correspondence between Highways England and its agents, Historic England and the Blick Mead Project. A bundle of correspondence is also attached for ease of reference, along with two short statements from attendees at meetings where there is no other record of what was discussed or agreed. I set out below in this email my submissions in relation to this issue. Unfortunately this submission covers quite a lot of material and is already of necessity a summary of that material (chiefly the correspondence in the attached bundle), such that I do not feel it would be appropriate or even possible to create a separate even briefer summary, and I trust this is acceptable to the Panel.
2. The significance of Blick Mead as a site of national importance – please refer to the submission by Prof David Jacques, Blick Mead Project Director, attached above. Prof Jacques is willing to appear before the panel as an expert witness on this subject should this be of assistance to the panel.
3. The inadequacy of Highways England's Tiered Assessment of October 2018 (appended to the Environmental Statement) – please refer to the attached submission by Professor Tony Brown, Blick Mead Project lead for environmental science, who is happy to appear before the Panel as an expert in hydro-geology, should the panel require clarification of any issues addressed herein, and should the panel deem it appropriate to convene an Issue Specific Hearing on this issue.

The attached submissions relating to points 2 and 3 above speak for themselves. In relation to point 1, I wish to draw the Panel's attention to the following themes that emerge from the attached chronology (references in square brackets in the text below are to page numbers in the attached bundle of correspondence):

Complacency about potential destruction of environmental archaeology at Blick Mead

- As long ago as January 2017, Phil McMahon of Historic England expressed his view that it was “*unlikely*” the proposed tunnel would damage Blick Mead [1-3];
- At a meeting on 29.1.18, David Bullock, project manager for Highways England, stated initially that the effect of the proposed fly-over on Blick Mead’s water table had already been assessed, later accepting no actual assessment had taken place at Blick Mead itself [8-10];
- At the Scientific Committee meeting of 23.2.18, Andrew Clarke (Deputy Project Manager for Highways England) stated that hydro-geological modelling of the chalk aquifer across the Stonehenge area had been undertaken over the previous 18 months using Environment Agency data [13-18];

Comment: It seems to be the case that initial expressions of confidence that Blick Mead’s water table would be unaffected by the tunnel project must have been based upon the general regional data available from the Environment Agency. Please refer to Prof Brown’s attached representations on the question whether such data can be relied upon in the cause of preserving Blick Mead’s water-logged organic remains. The question arises whether these initial assumptions have led to a complacency in the minds of the relevant Highways England and Historic England officers as to the risk of damage to Blick Mead.

Significance of the site of Blick Mead as a heritage asset

- In January 2017, Phil McMahon indicated a clear understanding of the significance of Blick Mead was required in accordance with National Planning Policy, and if it were assessed as a site of national importance the developer would be steered towards preservation in situ [1-3];
- Following the presentation by Prof Jacques (Director of Blick Mead Project) to the Scientific Committee on 23.2.18 as to the nature of the archaeology at Blick Mead, Prof Sir Barry Cunliffe (Chair of the Scientific Committee) acknowledged both the value of the site and its potential, while Phil McMahon (presumably now satisfied as to the importance of the site) indicated that planning laws made it clear that allowing substantial harm to archaeology “*of the highest significance*” should be wholly exceptional [13-18]. (N.B. Phil McMahon is here referencing the wording of paragraphs 5.126-133 of the National Policy Statement for National Networks, 2014).
- At the meeting of 16.4.18, Phil McMahon stated Blick Mead was in his view a nationally important site [75-78], and he reconfirmed this in February 2019 when stating the site was of national significance even if its character and extent are not yet understood [79].

Comment: There is little doubt of the consensus that Blick Mead is a site of national importance and significance, with as yet unknown further potential to enhance our knowledge of Mesolithic Britain, the least well understood period in our country’s history. This is agreed by both Historic England and Highways England’s own Scientific Committee. This point should be acknowledged as Common Ground. The relevance is that, as Phil McMahon has stated (see above) this fact requires the developer to (a) ensure preservation of remains in situ (as opposed arranging for pre-destruction archaeological recording), and (b) to avoid any harm to this archaeology unless the project falls within the category of “wholly exceptional” development with clear and convincing justification for the destruction. The meaning of “wholly exceptional” will no doubt be debated, but we submit that, in its simplest essence, this is simply a scheme to transform a stretch of single carriageway road into a dual-carriageway road, in an effort to improve traffic-flow and journey times. As such this is a commonplace scheme; the only thing wholly exceptional about it is that it is being proposed within the most prestigious World Heritage Site in this country, arguably in Europe. The assumed benefits of the scheme could in any event be realised by diverting the A303 to the south, wholly avoiding the World Heritage Site, at a fraction of the cost, but requiring a new public consultation.

The water table assessment that is required at Blick Mead

- Phil McMahon stated on 29.1.18 that the impact of the scheme on the water table at Blick Mead “*needs to be properly assessed before a scheme application can be submitted*” [11-12];
- The Scientific Committee meeting minutes from 23.2.18 [13-18] is a critical document in any consideration of this issue; Prof Tony Brown (Professor of Physical geography and Paleo-Environmental Science) presented to the committee the reasons why it was essential to have detailed local groundwater monitoring at the site over a minimum 12 months to measure seasonal fluctuations, if the lessons of the destruction of Star Carr

archaeology were to be heeded – please refer to the said Minutes and to Prof Brown's representations attached to this submission;

- When asked by the Chair at this same meeting whether the type of modelling advised by Prof Brown would be insisted upon by Historic England, the minutes record Phil McMahon replying that *"this must be the case"*;
- Phil McMahon also stated that Historic England had updated its guidance on the preservation of remains in watery environments, and that a detailed assessment using the tiered approach set out in its guidelines would need to be prepared;
- Prof Sir Barry Cunliffe concluded the meeting by stating that the Committee were concerned that the potential impact of the scheme on the archaeology at Blick Mead would be mitigated *"in the most effective way possible and to the highest of standards"*; (N.B. Prof Brown had indicated that the monitoring he advised was neither an onerous nor an expensive task);
- Following the above meeting, Phil McMahon advised Prof Jacques that Historic England would *"ensure that the groundwater assessment is thorough, robust and transparent"* [19];
- Another key meeting was arranged on 16.4.18 at AECOM's offices, attended by Andrew Clarke, Phil McMahon, Prof Jacques and Prof Brown, to discuss putting into place the necessary monitoring at Blick Mead; Prof Brown explained why the models for water-table fluctuations relied upon by Highways England were too general, pointing again to the lessons of Star Carr (again, please refer to Prof Brown's detailed representations attached); regrettably, no contemporary minutes were prepared or agreed after this meeting, and the ExA Panel will need to decide at the proposed issue specific meeting on this topic what was in fact agreed from other sources of evidence; an attempt to agree the minutes was made belatedly in February 2019, with only partial success [74-78];
- It is however the strong view of Prof Jacques and Prof Brown that at this meeting Highways England agreed to conduct a year-long programme of detailed local water-table monitoring at Blick Mead itself, that they would be consulted on the installation of further water meters, that the data collected from such monitoring would be shared with them, and that without it there was a strong implication that Historic England would not approve Highways England's Heritage Impact Assessment, a key component of the proposed DCO application; this account would at least accord with the advice from the Scientific Committee on 23.2.18, attended by both Phil McMahon and Andrew Clarke;
- In the interests of balance, the position of Highways England is that at this meeting they only agreed to conduct *"some"* further monitoring based on the results of a tiered assessment that AECOM were being tasked to prepare; (NB – the Blick Mead Tiered Assessment Report of October 2018 was appended to the Environmental Statement of the DCO application);
- The first sign of possible discord over what was agreed emerged in the email of Jack Parris (Land Consultant partner to Highways England) dated 1.5.18 [23-24] to Prof Jacques, when he suggested the further monitoring would be for a period of time sufficient to observe how water levels respond to seasonal fluctuations, but not necessarily over a full year;
- This prompted an immediate request from Prof Jacques for clarification from Phil McMahon [23], who by means of replies dated 4.5.18 [27] and 25.5.18 [32] confirmed his understanding the monitoring should be over 12 months, and who also asked Chris Moore of AECOM (technical partners to Highways England) to confirm their plans; Chris Moore replied to Prof Jacques on 29.5.18 confirming in unequivocal terms that the intention was to start asap and was to extend over 12 months and even beyond into the construction phase [33];
- Around this time, a further Scientific Committee meeting on 10.5.18 [29-31] sought an update on progress with the monitoring following the meeting of 16.4.18, and were advised that good progress had been made in agreeing a way forward, including the tiered assessment in line with Historic England's guidance; Prof Nicky Milner (member of the Committee and also Project Director at Star Carr) submitted a note about the significance of Blick Mead and drawing comparisons with Star Carr; the Committee agreed that future monitoring should provide evidence to compare with assessments undertaken to date, noting that longer-term monitoring would allow proactive mitigation to be undertaken if de-watering occurred;
- The Scientific Committee were further updated at their meeting on 3.8.18, when they were told that the monitoring they had requested was being progressed through the tiered assessment approach, that monitoring would commence once access was agreed with the landowner, and it would be over *"a period of at least 12 months"* [39-41]; NB – this meeting was attended by Andrew Clarke of Highways England;
- By October 2018, Highways England were getting ready to lodge their application for a

DCO; when challenged why they were doing this when the full environmental impact was yet unknown, they replied that *"a full environmental impact assessment"* had been undertaken, and that it showed *"there will be no adverse impact on Blick Mead"*[42]; they also stated that the continued monitoring would still go ahead in view of the public and professional interest in the site, to include Highways England's interest;

- Prof Jacques unsurprisingly questioned how it could have been concluded there would be no adverse impact on Blick Mead when the monitoring work there had not even started [44]; Prof Brown commented that the tiered assessment report was very preliminary and could only amount to a Tier1/Tier 2 report, when a Tier 4 report was required [50-51];
- On 30.10.18, Prof Jacques expressed his dismay at finding during his excavation period that month that the water-table monitoring at Blick Mead had yet to commence [46]; this appears to have triggered a flurry of hasty activity on site by AECOM during November, when water meters were installed without supervision from Prof Jacques right over an area of extreme archaeological sensitivity, see emails from Prof Jacques dated 27.11.18, for example [52-57];
- The Scientific Committee next met on 18.12.18 [61-63], when Andrew Clarke expressed regret at a breakdown in communications, but explained he had agreed to meet Prof Jacques on site on 21.12.18 to agree a way forward (in relation to the further monitoring of the local water table);
- Once again, what was agreed at that meeting as the way forward is now the subject of dispute between Prof Jacques and Andrew Clarke; see attached short witness statement of lawyer Siv Elisabeth Hveberg who accompanied Prof Jacques to that meeting; Prof Jacques' understanding of what had been agreed was set out in his email of 8.1.19 [65-66]; Andrew Clarke's reply of the same date [65] agreed 4 of 5 points (save the point about agreement to reimburse Prof Jacques extra expenses arising from the mistakes of November 2018); one of the points agreed was that either Prof Jacques or Prof Brown should be on site when further meters were installed; it was also agreed Profs Jacques and Brown would submit a more detailed proposal for future co-operation;
- The proposed agreement was sent to Andrew Clarke on 25.1.19 [68-69]; this anticipated that a further 10-13 meters would be installed (under supervision) at the Blick Mead site;
- Andrew Clarke responded on 26.2.19 [83], denying any agreement to monitor the water table at Blick Mead over 12 months; he maintained the only agreement was to conduct the tiered assessment and to carry out monitoring in accordance with that; he would respond in due course to the request for further water meter installations.

Comment: Put simply, Highways England have been pursuing a different agenda to that of Historic England and their own Scientific Committee, both of whom have explicitly stated from early 2018 that there needed to be a full and detailed assessment of the impact of the scheme on the local water table at Blick Mead over a minimum of 12 months. Phil McMahon of Historic England went as far as to say that without such an assessment the scheme application could not be submitted. The DCO application was submitted, as we know, in October 2018, in reliance on a Tiered Assessment report in relation to Blick Mead. However, it is the expert view of Prof Brown that the Tiered Assessment report is preliminary and insufficient to properly assess the potential impact at Blick Mead, for which he has made previous recommendations – see his representations attached above. It is moreover clear that the Scientific Committee were fully aware of the tiered assessment report that would be prepared, but distinguished this from the longer-term monitoring that was required at Blick Mead so as to avoid another Star Carr debacle. The attitude of Highways England to these requirements and expert advice is best summed up by their letter of 2.10.18 to the Amesbury Abbey solicitor, when they assert that the Tiered Assessment report has been completed and has shown there will be no adverse impact on Blick Mead, and that the further monitoring was really only being conducted as a courtesy to Historic England and others. At this point it is worth reminding ourselves that the terms of reference of the Scientific Committee include the requirement for Highways England to *"give careful consideration to any advice given by the Scientific Committee and have due regard to that advice, general recommendations and the particular observations of the Committee on specific aspects of the Scheme in relation to its archaeological mitigation."*

The water table assessment to-date

- The tiered assessment report was published in October 2018 and appended to the Environmental Statement in support of the DCO application; Prof Brown has already characterised this as a Tier 2 report at best when a Tier 4 report is required, along with the further monitoring over 12 months [51]; please also refer to his attached detailed submission on this issue;

- An email dated 2.11.18 from Jane Sladen of AECOM to Prof Jacques confirmed the locations of further water meters to be installed at the Abbey and at Blick Mead during November [45];
- Following the unsupervised installations in November 2018, it is apparent that there were now 5 water meters installed in Amesbury Abbey grounds, only 2 of which were in the Blick Mead vicinity - see email of Prof Jacques to Andrew Clarke and Jane Sladen of 25.1.19 [68]. By this email Prof Jacques provided a detailed request (designed by Prof Brown) for the installation of a further 10-13 water meters in and around Blick Mead itself, to give effect to the required local water table monitoring;
- Jane Sladen replied on 30.1.19 [72] raising some practical queries, and assuming the final precise locations for the further meters would be agreed on site;
- In his reply of 26.2.19, Andrew Clarke said he would review the proposal for further installations, and would reply in due course [83];
- When Prof Jacques emailed Jane Sladen on 5.4.19 [85] to ask her when she would be installing the further meters, the reply when it came was from Andrew Clarke on 9.4.19 [84-85]; he stated the request for further meters had been considered but rejected as in their view they would add no further value, and that the existing meters were sufficient for any on-going monitoring needs; after protests from Prof Jacques that he had gone back on the previous agreements, Andrew Clarke further clarified on 24.4.19 [88] that not only would further meters fail to add value, but that he could not justify the use of further public funds to carry out the work.

Comment: It should be abundantly clear from this submission that, at the urging of both Historic England and of its own Scientific Committee, Highways England did agree to conduct a detailed assessment of the local water-table fluctuations at Blick Mead, over a minimum period of 12 months; that it led the Blick Mead team, the Scientific Committee, and Historic England to believe that was what it intended; and that, now the Examination procedure is underway, it has reneged on all such agreements. The question must be asked whether Highways England ever intended to honour these agreements. Given that 12 months of monitoring could by now have been concluded had it been set in motion in April 2018 as requested by the Blick Mead team, one has also to question the motivation for the failure to undertake this assessment to Tier 4 level, as requested by Prof Brown. The excuse offered that the use of public funds could not be justified is somewhat feeble in the overall context of the proposed scheme, especially when the cost and effort involved would have been relatively minimal according to Prof Brown. It is worth posing the question – what if the detailed local water-table monitoring over 12 months showed there **was** a real risk the scheme would cause de-watering of the site, risking preservation of its organic archaeology?

Had such a conclusion been reached before the lodging of the DCO application, or even during the public consultation process, arguably a re-think of the Scheme would have been required, at the very least a re-design. If however it is reached after the Scheme is approved and construction has commenced, will the Scheme have too much momentum behind it to be de-railed by such an inconvenient finding?

Conclusion

In summary, we do not believe the significance of Blick Mead as a site of national importance is in dispute. This is accepted by Historic England, who advise the UK Government on such matters. Prior to its discovery in 2005, very little was known about Mesolithic activity in this vicinity, beyond the fact that 3 or 4 enormous post-holes were dug into the chalk in the area of the old Stonehenge car park, for purposes still unknown, in the early Mesolithic period; already, Blick Mead has yielded unprecedented evidence of repeated occupation over 4000 years, which is unique (to date) in NW Europe. The extent of the site both to the North of the A303 and to the South is as yet unknown, and, provided it avoids the fate of Star Carr, the site has the potential to continue to reveal previously unknown details about the lifestyle of its Mesolithic visitors/occupants, including how they reacted and adapted to such critical events as the formation of the English Channel in c 6000 BC, and the arrival of Neolithic people from the continent with their new technologies and ways of life c. 4000 BC. The longevity of the site, and the interface with the arrival of Neolithic farmers, whose descendants would go on to erect Stonehenge itself, may even explain the reason why this area came to be venerated as a sacred zone, many generations later. The OUV of the World Heritage Site, when the property was inscribed on the WH List, related specifically to the proliferation of Neolithic and Bronze Age monuments found here. However, this does not detract from the significance of Blick Mead. Had this site and its significance been known when the WHS was first listed, there is a strong case for

arguing that the OUV would equally have attached to this heritage asset. In any event, the need, we submit, for Blick Mead to be protected against any risk of harm from the proposed scheme, should be paramount. In this we believe we have the support of both Historic England and of Highways England's own Scientific Committee.

The disagreements between Highways England and the Blick Mead Project over what was agreed with regard to water-table monitoring at Blick Mead is regrettable. Glib statements of belief that Blick Mead will not be harmed by the scheme, based on general regional studies and even on the Tiered Assessment, are not nearly sufficient. This even appears to be the view of Historic England. The fate of Star Carr is a salutary warning that cannot be ignored or glossed over. The very latest development in this saga, whereby Highways England have now concluded that no localised monitoring is required, is an astonishing 'volte face', and one which requires detailed examination by the Panel. Had the proposed local monitoring commenced as intended shortly after the London meeting of 16.4.18, over a minimum 12 month period, the irony is that it would by now have been completed and the results available to the Panel. Given that the cost of such monitoring would have been negligible in relation to the scheme costs overall, it is difficult to understand the reluctance of Highways England to engage in the "thorough, robust and transparent" groundwater assessment required by Historic England following the meeting in April 2018.

The position of the Blick Mead Project is that the results of such monitoring ought to have been ascertained **before** Highways England applied for the DCO, and as a result that the current application is premature and inadequately risk assessed in relation to a key heritage asset. In view of what happened to Star Carr, it would be an unforgiveable folly to proceed with this project without the information ascertainable from the water-table monitoring recommended by Prof Tony Brown, which, in the words of Professor Sir Barry Cunliffe, Chair of Highway's England's Scientific Committee, "will allow proactive mitigation to be undertaken if de-watering occurs as the result of other impacts on the ground water".

Professor Brown has explained in detail to Highways England, to the Scientific Committee, and now, in his attached representation, to the Examining Panel, why the tiered assessment and general models are inadequate if the aim is to provide a thorough and detailed assessment of the risk to Blick Mead.

The Applicant could have delayed lodging its application until the heritage impact at Blick Mead had been fully assessed. It did not, and having set this process in motion, the statutory timeframe will expire before a full assessment can be completed. We submit that this is a sound reason for not recommending approval of this scheme.

Mark Bush

On behalf of the Consortium of Archaeologists and the Blick Mead Project

1.5.19



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CHRONOLOGY OF EVENTS CONCERNING PROPOSED MONITORING OF LOCAL WATER TABLE AT BLICK MEAD

- 20.1.17 Phil McMahon (Inspector of Ancient Monuments at Stonehenge for Historic England) replies to Prof David Jacques' (Director of Blick Mead Project) concern about the impact of the proposed scheme on Blick Mead (BM).
- PM expresses his view that the proposed tunnel was "*unlikely*" to have any impact on BM;
 - The need to demonstrate the proposals would not impact on groundwater levels or hydrology was a requirement of the Environmental Assessment;
 - This included the need to protect archaeological sites where preservation of water-logged organic & environmental data was central to the significance of that archaeology;
 - A clear understanding of the significance of the BM site was required in accordance with the National Planning Policy – if assessed as a site of national importance, the developer would be steered towards preservation in situ.
- 16.11.17 Meeting of the A303 Scientific Committee (the SC):
- Discussed the location (of) and potential changes to BM
 - Chair, Prof Sir Barry Cunliffe, proposed that Prof David Jacques (DJ) be invited to give a presentation to the committee to explain the importance of the excavations at BM.
- 29.1.18 Meeting at Amesbury Abbey Nursing Home between landowner (David Cornelius-Reid), DJ and 4-strong team from Highways England (HE) led by David Bullock (DB), scheme project manager, to discuss scheme impact on both Amesbury Abbey (AA) and on BM. [See DJ's note of this meeting in his email of 20.2.18 to a legal advisor]:
- A flyover is to be built adjacent to BM on footprint of current A303 to filter traffic into the tunnel – this would be within a few meters of the earliest dwelling structure, the 10m long stone-laid platform, and the preserved auroch hoof-prints below the platform;
 - DB stated the effect of the flyover on the BM water-table had been assessed, but later conceded that no actual investigations had yet taken place;
 - HE map of the site distributed at this meeting was inaccurate, locating key BM trenches well away from the proposed flyover.
- 29.1.18 PM email to DJ:
- He is aware that HE have experienced frustrating delays getting access to parcels of land to commence water-table monitoring;
 - He is keen to receive information about further discoveries at the site to understand its significance;
 - "*The addition of a new nationally-significant archaeological site which may rely on an anaerobic environment to maintain its significance only adds to the need for HE to demonstrate the sustainability of their proposals*";
 - These and other impacts (such as on AA) "need to be properly assessed before a scheme application can be submitted".
- 23.2.18 Meeting of the A303 Scientific Committee (the SC):
- DJ and Prof Tony Brown (TB), Blick Mead Project lead for environmental science, gave a presentation at the invitation of the SC on the nature of the archaeology being found at BM, and concern about the possible effects of a lowering of the local water table.
 - The Chair acknowledged the value of the site and its potential;

- PM confirmed that the Planning Act and NPPF made it clear that allowing substantial harm to archaeology of the highest significance should be “*wholly exceptional*”;
- PM stated that Historic England had recently updated its guidance on the preservation of remains in watery environments, and that a detailed assessment using the tiered approach set out in the guidelines needs to be prepared;
- Andrew Clarke (AC) of HE advised that hydro-geological modelling of the chalk aquifer across the Stonehenge area had been undertaken using Environment Agency data over the last 18 months, and that the application for a DCO was on course to be submitted by late Summer 2018;
- DJ noted no detailed assessment had yet taken place at BM, and asked if such local monitoring would take place over the full seasonal cycle;
- TB warned that the lessons from Star Carr showed that it was essential to have a shallow groundwater model at a sub-10m scale to effectively model potential impacts on waterlogged environments, as the loss of 10-20cm of groundwater would have a major impact on shallow deposits; he advised that inserting a series of dip-wells to gather data was not an onerous or expensive task;
- When asked by the Chair (BC) whether the type of modelling advised by TB and set out in the Historic England guidelines would be insisted upon by Historic England, PM replied that “this must be the case”;
- Dr Colin Shell noted the assessment would need to be over 12 months to cover seasonal variations;
- The Chair (BC) concluded that preservation would be preferred to mitigation, and that TB’s offer to collaborate in the monitoring was particularly valuable; he hoped this would be acted upon as a matter of urgency, and stated the SC were concerned that the potential impact of the scheme on the archaeology would be mitigated “*in the most effective way possible and to the highest of standards*”.

28.2.18

PM email to DJ:

- commenting that the SC meeting was very useful, and that “*we’ll ensure that the groundwater assessment is thorough, robust and transparent*”;
- He will ask the HE consultants to engage constructively with DJ and TB “so that the fullest picture of BM’s groundwater sensitivity can be acquired”.

16.4.18

Meeting at offices of AECOM (hydrological contractors to HE), attended by AC, PM (Chair), DJ, TB and AECOM team, to discuss water-table monitoring at BM:

- Unfortunately no contemporary minutes were prepared (see entry below dated 22.1.19); later attempts to agree the minutes in February 2019 were aborted;
- A draft set of (partially agreed) minutes does exist, from which the following points can be extracted:
- TB advised that HE models for water sources and water-table fluctuations are too general, and that localised monitoring at BM was required; he drew a direct comparison with the failure to assess local water table conditions at Star Carr that led to severe damage to that site, when an infrastructure project was allowed to proceed in the vicinity;
- HE took the view that there would be negligible impact on BM, but DJ and TB disagreed on the basis there had as yet been no detailed shallow groundwater modelling at BM itself, and stated that monitoring should commence asap given there was considerable variation in the water table level across the year;
- There is now a dispute over the extent of monitoring that was agreed; TB and DJ believe a year-long programme was agreed, while HE state they only agreed to “*some monitoring*” to be based on the results of the tiered assessment, yet to be undertaken;
- PM indicated he regarded BM as a “*nationally important site*”;
- AECOM were tasked to prepare a tiered assessment following Historic England’s published guidance;
- AECOM were also instructed to explore opportunities to install piezometers in and around the BM site, and then to conduct on-going monitoring;

- PM suggested DJ and TB should be consulted on this further work (i.e. the installation of further water level monitors);
- [To the extent that there is continuing dispute about what was agreed at this critical meeting, if the panel agree to hold an Issue Specific Meeting on this topic, attendees at the meeting can be asked to confirm their recollections and understanding of what was discussed and agreed, either by written statement or by attending in person to answer questions].

18.4.18

DJ email to TB:

- This email does at least contain a contemporary reflection of what was discussed at the 16.4.18 meeting;
- In it, DJ indicates he is pleased that PM hinted heavily at the end of the meeting that he would not provide Historic England's approval without the work TB had suggested being done at BM, and at the expense of HE.

26.4.18

DJ email to Jack Parris (JP), of WSP, Land Consultants to HE:

- JP had been seeking access to AA to view the spring in high groundwater conditions and to measure surface water levels, on instruction from HE;
- DJ tells JP that the recent meeting with HE and Historic England (16.4.18) ended positively with the recommendation that HE install further bore-holes and conduct shallow water-measuring at BM, to be measured over the course of one year; he asks JP if this it is this work for which he is seeking access;
- [NB - This is a further contemporary record of what DJ believed had been agreed at the 16.4.18 meeting.]

1.5.18

JP email reply to DJ:

- Having taken instructions from HE, JP confirmed that he wished to measure water levels in the pond, river and spring, and at a future date he would wish to install staff gauges, water level monitoring probes and stilling wells at these locations;
- He stated they would monitor "*for a period of time*" to observe seasonal change, but not necessarily over the course of one year; the period would be sufficient to observe how levels respond;
- Bore-holes had yet to be agreed, and may not be added until the Autumn.

2.5.18

DJ email to PM:

- DJ expresses immediate concern that the replies from JP do not reflect his understanding of the agreement he thought had been reached on 16.4.18, to the effect that the local water table at BM needed to be carefully monitored across all seasons and with appropriate equipment;
- DJ stresses that from JP's replies it is unclear whether any local monitoring would be undertaken at BM itself;
- [It is clear from this email that DJ was keen that the local monitoring works should start asap].

4.5.18

PM email to DJ:

- PM confirms he advised HE to "*do the assessment and include BM*";
- He indicated Historic England had formalised this advice in its public consultation response (dated 20.4.18 – see pages 6-8 therein);
- He will forward DJ's email to Chris Moore (CM) of AECOM and ask him "to press on this matter".

10.5.18

Meeting of the A303 Scientific Committee:

- The SC had received a note from Prof Nicky Milner (Project Director at Star Carr and member of the SC), noting the significance of the BM site and drawing comparisons between it and Star Carr;
- The SC were updated about the progress made in the meeting between HE, DJ, TB and Historic England (16.4.18), agreeing a way forward to include the

tiered assessment in line with Historic Eng's guidance. [NB – attendees at this SC meeting included AC, CM and PM, but not DJ or TB who are not members of the SC].

- The SC agreed that *“future monitoring of groundwater should provide evidence to compare with assessments undertaken to date. The benefit of longer term monitoring is that it will allow proactive mitigation to be undertaken if dewatering occurs as the result of other impacts on the ground water.”*

24.5.18 DJ email to PM:

- DJ seeks to clarify PM's previous reply, asking if he means they (HE) will extend monitoring beyond the 12 months and into the construction phase.

25.5.18 PM email reply to DJ:

- PM concurs with DJ's understanding but suggests he seeks confirmation direct from HE.

29.5.18 CM email reply to DJ:

- He confirms on behalf of HE that *“the intention is to commence monitoring at the earliest opportunity, the monitoring will extend beyond 12 months and continue into the construction phase”*;
- The landowner would need to agree to the placing of monitoring equipment and to periodical visits to take readings;
- [NB – this email was copied to both PM and AC, as well as to other AECOM staff].

10.7.18 Letters from Duncan Wilson (Chief Executive of Historic England) to both Tom Watson MP and Alex Burghart MP:

- [These letters followed the House of Commons debate on the tunnel scheme, and the risk of harm to heritage assets inside the World Heritage Site boundaries];
- He seeks to allay any fears that the BM site conditions are comparable to Star Carr, or that there is a risk it may suffer the same fate;
- He states *“It has not been demonstrated that the site is dependent upon waterlogged ground to preserve its significance.”*
- They (Historic England) have nevertheless advised HE to install monitoring equipment, which has been agreed, although HE's own assessment is that the scheme *“will have no impact upon BM or its water environment”*, given that the scheme *“will only involve minor works in the vicinity of the site.”*
- [The thrust of these letters makes clear that, despite being concerned that local water-monitoring at BM should be thorough and detailed, given the site's significance, Historic England are supportive of the scheme overall, as they perceive a net benefit to the WHS from the removal of the section of the A303 from its central area].

3.8.18 Meeting of the A303 Scientific Committee:

- The SC was updated that the monitoring of the water table at BM it had requested was being progressed through the tiered assessment approach outlined in Historic England's guidance. *“Monitoring will commence once land access has been agreed with the landowner. This will be for a period of at least 12 months”*;
- [NB – this meeting was attended by AC, CM and PM]

2.10.18 HE email to Tracey Merrett (solicitor to owners of AA):

- HE confirm that *“A full environmental impact assessment has been undertaken for the scheme which will be reported in an Environmental Statement that will accompany the DCO application we intend to make shortly. The assessment shows there will be no adverse impact on BM”*;
- HE then draw a distinction between the impact assessment and the continued planned monitoring, which will be conducted to satisfy *“Historic England's interest and their wish to see further monitoring continue to secure a greater*

level of understanding in the site.”

- 2.10.18 DJ email to PM:
- DJ advises PM he has seen the HE reply of that date to Tracey Merrett;
 - He refers to his understanding of the agreement reached on 16.4.18, to the effect that monitoring was needed at BM across a 12 month period, and that TB would be asked to advise on the process;
 - Since the detailed assessment over 12 months had not been completed (limited monitoring having started in May 2018), DJ challenges the assertion that the environmental impact on BM had been fully assessed and that there would be no adverse impact on BM.
- 26.11.18 TB email to DJ:
- [The date of this email is unclear, but it appears to be in response to a request from DJ to TB to comment on the HE tiered assessment report that was appended to the Environmental Statement, the same report referred to by HE in their email of 2.10.18 to Tracey Merrett];
 - TB’s main comment is that this is very preliminary, a Tier1/Tier2 report at best when a Tier 4 report is required, together with continuing monitoring at BM itself (which had not yet even commenced);
 - [It is intended that TB will prepare a detailed submission to explain the inadequacy of the tiered assessment report, to be filed with this written representation by 2 May 2019].
- 30.10.18 DJ email to JP:
- He had been on site recently with TB and was dismayed to find that despite assurances no water table measurements had yet been taken at BM in the area of the archaeology;
 - He states that both PM and CM had agreed such local monitoring was required at BM over 12 months to assess seasonal fluctuation;
- 2.11.18 Jane Sladen (JS) of AECOM email to DJ:
- She advises their hydrologists would be on site that week to monitor groundwater levels at AA, approximately 50m from the BM spring;
 - She attaches a map showing the location of stakes at BM and AA where piezometers will be installed at different levels during November; 10 such locations are described by means of grid references.
- 7.11.18 JP email to DCR of AA:
- He seeks access to AA to install some augur dug shallow boreholes, suggesting DJ was aware of the work, which was aimed at getting a better understanding of the hydrological setting near the Spring.
- 8.11.18 DCR email to JP:
- He agrees but stipulates that it is vital that DJ is consulted about the installation of any new monitoring equipment in the BM site.
- 26.11.18 TB email to DJ:
- [This email it appears to be in response to a request from DJ to TB to comment on the HE tiered assessment report that was appended to the Environmental Statement, the same report referred to by HE in their email of 2.10.18 to Tracey Merrett];
 - TB’s main comment is that this is very preliminary, a Tier1/Tier2 report at best when a Tier 4 report is required, together with continuing monitoring at BM itself (which had not yet even commenced);
 - [Please refer to TB’s detailed submission explaining the inadequacy of the tiered assessment report, being filed with this written representation by 2 May 2019].

- 27.11.18 DJ email to JP and JS (at 10.39am):
- He says he has just learned that the AECOM team are installing water measuring equipment in the BM area in locations he (DJ) had supposedly agreed – which was not true;
 - He expresses alarm that monitoring equipment had been installed on the terrace facing the BM spring where the late Mesolithic occupation area was, and that there could be damage caused to the archaeology if holes were dug through it;
 - He asks AECOM to stand down its team and arrange a site meeting with himself and TB to agree on locations for the monitoring equipment.
- 27.11.18 DJ further email to JS (at 12.01pm):
- He re-iterates that work should stop until either he or TB could attend to supervise (to ensure protection of sensitive areas of archaeology);
 - He has now received a photo from the site (taken by an associate) showing a large borehole dug through the area very close to the stone platform area beneath which the auroch footprints were found last year.
- 27.11.18 DJ further email to JS (at 14.44pm):
- Having received details of the size and nature of the borehole installed in the area of the stone platform, DJ advises JS that its dimensions are larger than those recommended by TB at the London meeting of 16.4.18; he complains he had no prior notice the installations would be this size
 - He complains further that the installation has been cemented in, without prior consultation, in an exceptionally important area of the site, where TB and his team from University of Southampton had been taking environmental samples (the concern being contamination and/or destruction of such evidence by the introduction of a foreign material).
 - A meeting on site had been hastily planned for 6.12.18; DJ seeks confirmation he will be reimbursed for his travel and accommodation expenses, and for the unpaid leave he would have to take.
- 27.11.18 DJ email to JS (at 23.47):
- He asks what happened to the spoil from the borehole above the stone platform, and whether anyone had examined it, given this area is known to be full of prehistoric archaeology; he will ask the landowner to preserve whatever is left;
 - [It does not appear that there was a reply to this request]
- 6.12.18 Site meeting at BM between DJ and JS:
- [Please see attached short statement by DJ setting out his account of what happened at this meeting].
- 14.12.18 DJ email to JS:
- He sends JS a copy of a geophysics survey showing the extent of the stone platform, previously shared with PM, CM and the SC.
 - He refers JS to PM's email of 28.2.18, following DJ's presentation to the SC, (when PM indicated he would ask HE's agents to engage constructively with DJ and TB to acquire the fullest possible picture of the BM groundwater), expressing regret that process was not followed, albeit he does not seek to lay blame with the AECOM team on the ground.
- 18.12.18 Meeting of the A303 Scientific Committee:
- The Chair (BC) was aware of the press attention on the possible damage to the stone platform at BM and had asked DJ what had happened;
 - DJ has sent him several email chains in confidence, leading BC to ask HE to explain why DJ had not been invited to supervise installations at the BM site (as had apparently been agreed);

- AC regretted an unfortunate sequence of events and mis-communication with DJ, but said he was to meet DJ on site on 21.12.18 to agree a way forward;
- CM presented slides showing the reported locations of the BM trenches and also the locations of the boreholes, suggesting no meters had been installed in or above the BM trenches (contrary to the reports);
- CM also stated that the extracted spoil from the tube installation had not revealed any Mesolithic archaeology;
- A note from TB to BC explaining the importance of the hydrology issues at BM was to be appended to the minutes.

- 21.12.18 Site meeting at BM – attendees AC and JS, DJ and Elisabeth Hveberg (lawyer):
- [There is no contemporary record of what was discussed, but the aim was to agree a way forward with regard to water table monitoring at BM, avoiding the communication problems that led to the installation of a water meter without approval of location from DJ or TB, which had gone in above the area of the auroch hoof-prints].
 - [Subsequent emails (see below) seek to record what was agreed, but once again there is incomplete agreement about that].
 - [Please also refer to the attached short statement of Elisabeth Hveberg as to what was discussed at this meeting]
- 21.12.18 Internal email from AC to (presumably) others in the Project Team – names redacted:
- [This email was disclosed pursuant to a FOI request]
 - DJ will be sending him a proposal for 15 further piezometers to be installed at specific locations; when received HE will consider it and respond;
 - AC apologised for the failure of communications (that had led to the alarms on 27.11.18);
 - He describes the meeting as positive and as having reached an *“agreed way forward”*.
- 8.1.19 DJ email to AC and JS:
- DJ summarised what was agreed at the site meeting of 21.12.18, concerning future co-operation about the placement and monitoring of water meters at the site:
 - (1) All parties would seek to co-operate;
 - (2) Either DJ or TB to be on site when further water meters are installed;
 - (3) HE or agents would attend monthly to take readings, and share the data with TB and DJ;
 - (4) Minutes from meeting of 16.4.18 should be produced asap;
 - (5) Additional costs incurred by the BM Project due to the previous installation without consent are to be reimbursed by HE;
 - A further more detailed proposal concerning this co-operation would be formulated by the BM team;
- 8.1.19 AC email reply to DJ:
- He confirms agreement to points 1-4 above, but not point 5;
 - He agreed HE would consider any claim for costs, including past costs, on presentation;
 - He awaits DJ's proposal on future co-operation.
- 25.1.19 DJ email to AC and JS:
- Currently there are 5 HE water meters in AA grounds, only 2 of which are at the BM site;
 - The proposal is that HE will install a further 10-13 water meters at the site, and share data with the BM team as per this agreement;
 - A 15 point proposed agreement is set out, including provision for the BM team to decide on the placement of further water meters, and either DJ or TB should be present (expenses paid) when new meters are installed;
 - The proposed agreement also provided for the further meters to be installed

between 17.4.19 - 24.4.19;

- 30.1.19 JS email to DJ:
- She raises some technical and practical queries regarding the proposed locations and installations of further water meters, quoting from the proposed agreement in DJ's email of 25.1.19, and assumes the final precise locations for the further meters would be agreed on site.
- 5.2.19 DJ email to AC and JS, copied to PM and BC:
- DJ notes that he did not send the up-to-date information about trench locations to JS on 14.12.18; in particular trench 24c had been extended beyond the original plan, and the auroch hoof-prints were found below the extension of the trench; the corrected co-ordinates of the trench were provided;
 - [The relevance is that the trench plans presented by CM to the SC on 18.12.18, showing the bore-hole was not inside trench 24c, were the original plans from 2016; in reality the bore-hole was much closer to where the hoof-prints were found, and where it was hoped that further similar features would be found on future excavations]
- 22.2.19 AC email circulating draft minutes from the meeting of 16.4.18:
- Some attendees at this meeting are reluctant to agree what was said, given the passage of time;
 - PM responds (same date) agreeing the task is invidious but he does confirm for the record that in his view *"the site is of national significance even if its character and extent are not yet understood."*
- 25.2.19 DJ email to AC and PM:
- He shares the view it is now impossible to agree the draft minutes, and considers that the failure to prepare minutes timeously after the 16.4.18 meeting has contributed to confusion over a key issue – was it agreed the further monitoring should take place over a 12 month period or not?
 - He refers to the chain of emails between himself, CM and PM on this issue indicating that it was in fact agreed the monitoring should take place over 12 months and beyond;
 - He refers to his email of 25.1.19 regarding proposed further installations at BM, under supervision, from 17.4.19, exactly a year after the meeting in London took place, and states that this work should continue for 12 months.
- 26.2.19 AC email to DJ and PM:
- He denies that there was an agreement to monitor the BM water table for 12 months;
 - He insists HE only agreed to conduct the tiered assessment and carry out monitoring of the hydrology at BM in accordance with that;
 - The tiered assessment was the report required for the DCO application, and appended to the Environmental Statement;
 - HE would now review the proposal for further installations and would respond in due course.
- 26.2.19 DJ email to AC:
- He queries the apparent discrepancies between the denial by AC in the foregoing email, and the previous indications that HE would conduct both the tiered assessment and 12 months' worth of monitoring at BM;
 - He asks if the tiered assessment should be at Tier 4 level, as required.
- 27.2.19 AC email to DJ:
- He clarifies that the tiered assessment was undertaken to Tier 2, and is complete, and had been filed with the DCO application;
 - He maintains that HE only agreed to carry out the appropriate tiered assessment, not to conduct assessment of the local water table over a

minimum of 12 months.

- 4.3.19 DJ email to AC and PM:
- He seeks to confirm that AC is saying HE will monitor the water table at BM but not assess the data; that would invite parallels with the Star Carr mistakes, where English Heritage simply monitored the falling water table until the Mesolithic organic remains were destroyed;
 - He notes that the Tier 2 assessment relied upon general models before any water meters were placed at BM;
 - He stresses that assessment of the local water table dynamics at BM was urgently required to protect the organic archaeology of Mesolithic date.
- 5.4.19 DJ email to JS:
- He advises JS he is on the way to BM to attend with Southampton University experts to plot the remaining placements for the water meters, and asks her to confirm when she would be installing them, week-commencing 17.4.19 having been suggested.
 - [NB – it should be noted that the Preliminary Meeting of the Examination took place on 2.4.19, just 3 days before this email].
- 9.4.19 AC email to DJ , TB and JS:
- HE have now considered the request of 25.1.19 to install further meters at BM, and have decided the extra meters would add no extra value;
 - HE will not therefore carry out these works, but it would continue to monitor existing boreholes, assuming access to site continued to be allowed;
 - The further proposed works go beyond the scope of what was discussed by HE, Historic England and the BM Team;
 - The monitors in place are sufficient for any on-going monitoring needs;
 - He indicates he will be in touch regarding a statement of common ground.
- 9.4.19 DJ reply email to AC and JS:
- He expresses extreme disappointment that HE was now withdrawing from the in principle agreement reached on site on 21.12.18, when HE were seeking co-operation from the BM team going forward, and when he agreed to the placement of additional water meters at BM;
 - The agreement was summarised in DJ's email of 8.1.19, most of which AC agreed to by email of the same date, including the part about the further water meters;
 - At the meeting on 21.12.18, AC invited DJ to specify what the BM team felt was needed – all subsequent correspondence had been underpinned by this common understanding that the further meters would be installed – until now, within days of the Preliminary Meeting, HE have resiled from the previous understanding.
- 16.4.19 AC email to DJ:
- He acknowledges DJ's disappointment but states he had not previously agreed to the installation of water meters;
 - He suggests that in his email of 8.1.19, when he stated he could not agree to fund costs without first understanding the basis for them and agreeing them, this included the proposal for additional water meters, i.e. not just the additional costs being incurred by DJ and/or TB personally in attending to supervise these installations.
- 18.4.19 DJ further email to AC:
- He reminds AC of their agreement of 21.12.18 regarding further water meter installations at BM, and refers him to their exchange of emails on 8.1.19 which on their face confirm this agreement.

24.4.19

AC email reply to DJ:

- He reconfirms HE has decided against installing further water meters on the grounds that *“added value could not be gained”* and that he cannot justify *“the use of public funds for carrying out the work”*.
- He seeks to clarify that when he stated in his email of 8.1.19 he did not agree DJ's point 5 about covering expenses, he intended this to refer to the further cost of installing further water meters.

(last updated 1.5.19)

From: McMahon, Phil [Phil.McMahon@HistoricEngland.org.uk]

Sent: Friday, January 20, 2017 7:09 PM

To: David Jacques

Cc: Bowden, Mark; Nicola.Snashall@nationaltrust.org.uk; david@amesburyabbey.com; The Clarkes; A303Stonehenge

Subject: {Spam?} RE: Highways England plan - Blick Mead

Dear David,

As the scheme promoters, Highways England are the people I recommend that you target your detailed comments to as part of your response to the public consultation. They have retained the services of professional archaeological advisers and are best placed to respond to your concerns, and engage in the necessary technical conversation around the issues you raise.

Speaking for Historic England, it remains my view as I've consistently said, both in conversation with you and in responding to your press releases over the past couple of years, that it is very unlikely that the proposed tunnel (for either of the options under consultation) will have any impact upon Blick Mead.

We have advised Highways England that they should be very careful to ensure the current proposals should have no new land take south of the present highway boundary between Countess and the proposed portal site precisely because of the particular archaeological sensitivity there, including Blick Mead, Amesbury Abbey Registered Park & Garden, Vespasian's Camp and the field to its west which contains a high concentration of Neolithic & Early Bronze Age funerary and ritual monuments. Likewise, the need to demonstrate that the proposals will not impact on groundwater levels and hydrogeology is a requirement of the environmental assessment they must undertake to prove the sustainability of the proposals – including upon archaeological sites where the preservation of waterlogged organic and environmental data has been identified as central to the significance of that archaeology.

I believe that the most fruitful way for you to move forward with your archaeological concerns is to begin a dialogue with Highways England through the public consultation. The nature of the process is such that they must take your concerns on board and engage with the issue. The current public consultation - and I appreciate that the DfT press release and announcement at the launch on 12th January, which was picked up by national media, did not make this clear - is but the first step of engagement with the public and all stakeholders on the initial draft of a potential scheme. These are by no means the 'finalised proposals' as reported in the media. There is much scope for alteration to avoid harmful impacts. If you raise these issues with Highways England they will engage with you.

I must clear up a misunderstanding in your letter – the inscription of the Stonehenge & Avebury World Heritage site designates relevant archaeology of the Neolithic and Early Bronze Age periods – these are the periods for which UNESCO has listed the site and which carry Outstanding Universal Value (OUV). There is much significant archaeology within the WHS boundary which is not part of the inscription and does not carry OUV. This doesn't mean that that heritage is unimportant, whether earlier than the period for which the WHS is inscribed (such as Blick Mead) or later (such as Middle Bronze Age or later periods). Where archaeology of any period is present within the vicinity of a development site, national planning policy requires its significance to be assessed. Where significance is assessed as nationally-important (whether designated as a Scheduled Monument or not), there are clear policies steering the developer towards its preservation in-situ. A clear understanding of the significance of Blick Mead will be essential in informing its future protection, and your forthcoming publications will be valuable in enabling your dialogue with Highways England on this matter.

I'm copying this reply to the Highways England team, as the process of stakeholder identification and engagement is wholly within their remit. If there have been omissions in their stakeholder work with you and the relevant landowners then I'm sure they will be keen to redress this, and ensure that you and others have the opportunity to engage with the appropriate stakeholder forum.

Yours sincerely

Phil

Planning Group
Historic England
29 Queen Square Bristol BS1 4ND
Direct Dial. 0117 975 0699 Mobile. [REDACTED]

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Minutes

A303 Stonehenge – Amesbury to Berwick Down

Title:	Scientific Committee		
Date:	16 November 2017	Time:	10:30 – 16:30
Location:	Holiday Inn, Solstice Park, Amesbury, Wiltshire SP4 7SQ		

Attendees:

Scientific Committee

Professor Sir Barry Cunliffe
 Dr Mike Allen (MA)
 Dr Andrew Fitzpatrick
 Dr David Fields
 Professor Clive Ruggles
 Julian Richards
 Dr Colin Shell

HMAG

Melanie Pomeroy-Kellinger (MPK) (Wiltshire Council)
 Clare King (Wiltshire Council)
 Phil McMahon (Historic England)
 Heather Sebire (English Heritage)
 Nicola Snashall (National Trust)

Secretariat

Leslie Smith (Highways England)

Presenters

Neil Macnab (AmW)
 Chris Moore (AmW) (CM)

Apologies

Professor Nicky Milner
 Professor Mike Parker Pearson
 Professor Tim Darvill

Dr Josh Pollard
 Professor Vince Gaffney
 Professor Oliver Craig
 Mike Pitts

Chair: Sir Barry Cunliffe

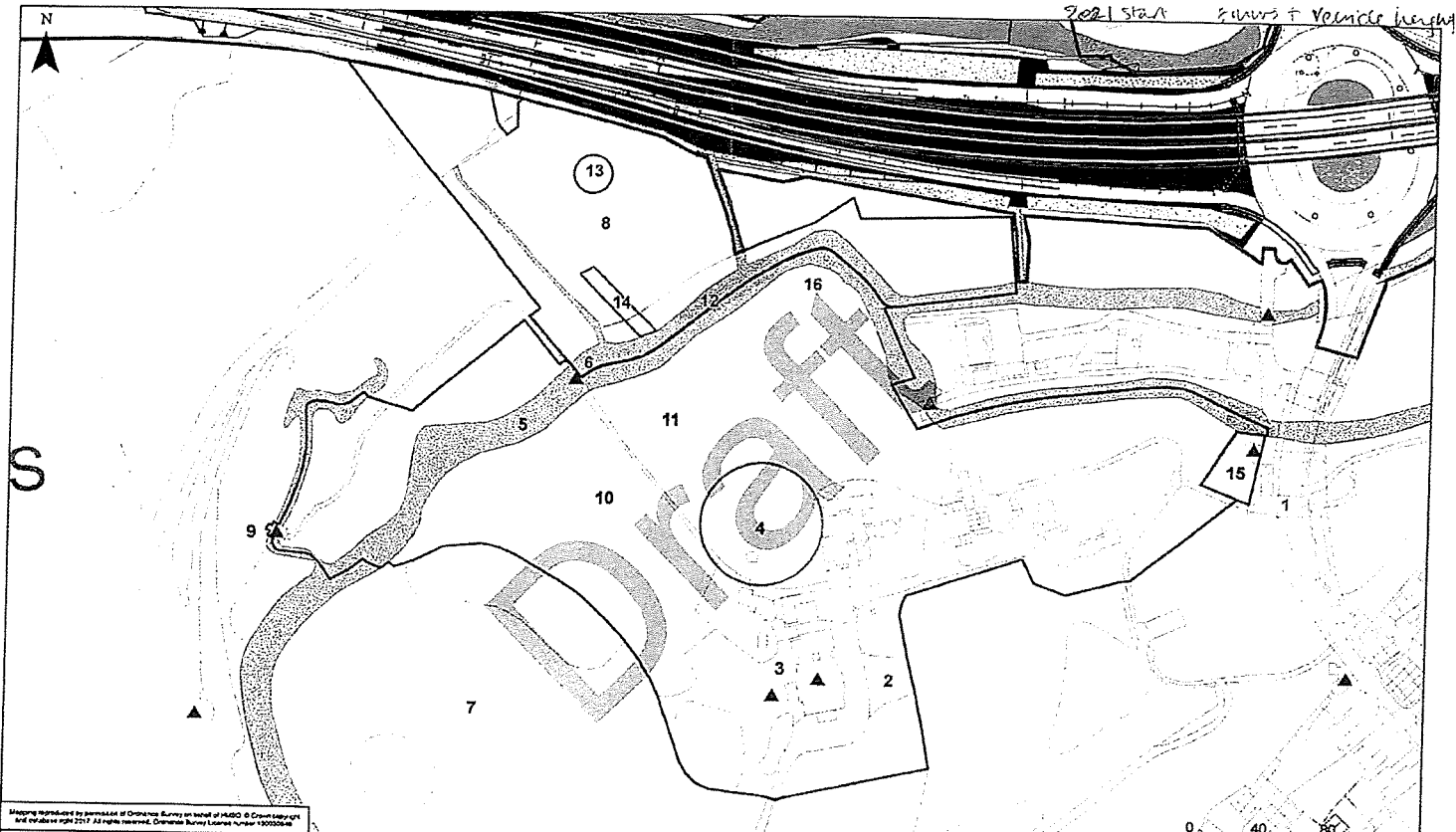
Agenda Item	Action
Welcome	
<ul style="list-style-type: none"> No comments on the minutes from the previous meeting 	
Presentation and Discussion around the website for the Scientific Committee	
<ul style="list-style-type: none"> Presentation by MPK: why the website was created, the website layout and the ownership of the website. Confirmation that the designer, Chris Franklin, is independent from Highways England, HMAG and the Scientific Committee. A discussion was held over the 'members only area' – an aura of secrecy is not desirable – a description of what is held in the area should be added to the home page. Feedback for the website to be sent to MPK by email. The website will be live before the next Scientific Committee meeting. Note from Melanie Pomeroy-Kellinger: <p>We would be grateful if members of the Committee could open the following link and have a look at the draft web site. http://a303scientificcommittee.org.uk/ The site is not live yet so you will need to enter the <u>Username:</u> a303 and <u>Password:</u> committee members. We hope to go live with the web site when we have received feedback from the Committee, hopefully by the end of the year at the latest. Can you please let us know: what you think and any areas for improvement, any additional photos or images you would like included, and most importantly a little biography (max 100 words) of yourselves with a photo. Could you please also confirm what title you would like to be used on the web site e.g. Dr, Prof etc. Please can you pass all feedback and information to go onto the web site by 15th December directly to melanie.pomeroy-kellinger@wiltshire.gov.uk</p>	

Tour of the Landscape	
<ul style="list-style-type: none"> • AThe Eastern and Western Portal locations were viewed from NT land • The topography and route were discussed at each location in relation to the principal monument groups. • The potential visibility of the portals and approach cutting was discussed. • The potential for colluvium to be present at the portal locations was also discussed. • 	
Presentation on the Evaluation Strategy by AmW	
<ul style="list-style-type: none"> • Presented the provisional Red Line Boundary (RLB) - as well as the road line itself the boundary includes possible compound areas. • Confirmation that not all land within the RLB will be required for construction. • CM pointed out where the landscape tour took place in regards to the RLB. • The Strategy sets out a series of principles for evaluation based on those published in the WHS Management Plan, reviews the extent, scope and robustness of previous surveys/evaluation along the route, and proposes a programme of further evaluations to augment the results of previous work. • CM presented previous surveys in the RLB relating to the 2004 scheme as well as the current Scheme – areas within the WHS where further survey will be required will be the western portal and approaches, the eastern portal and approaches. Outside the WHS land at Longbarrow and for junction improvement at Rollestone Corner will also need evaluating. Land at Countess East has been subject to extensive survey and additional survey may not be necessary here. • The location and potential changes to Blick Mead were also discussed; MA circulated some information on the sequence in the Avon floodplain here, which included peat deposits. • • The Evaluation Strategy will be circulated to the Committee for comment. Digital copies requested when available as well as hard copies. 	
Presentation on the Overarching WSI by AmW	
<ul style="list-style-type: none"> • Purpose and scope of the OWSI was explained – together with the Archaeological Evaluation Strategy this forms a framework for site-specific WSIs (SSWSIs) that will detail the known archaeological context, relevant research questions (with reference to the published WHS research framework) and specific objectives of each package of evaluation. • The OWSI will also be circulated to the Committee for comment. • MA to feed in change of interpretation of the palaeoenvironment – to send to AmW but cc in the Scientific Committee. • SSWSIs for sections of the Scheme within the WHS will be circulated to the Scientific Committee for comment. • CVs of excavation team to be circulated to HMAG as they need to be experienced in artefact recognition. 	
Presentation on the Scoping HIA by AmW	
<ul style="list-style-type: none"> • The HIA is a non-statutory document being prepared by AmW in line with the recommendations from ICOMOS. • An HIA scoping report is being prepared following the ICOMOS Guidance 2011. • Purpose of the HIA is to assess the impact of the Scheme on the OUV of the WHS – this is distinct from the statutory Environmental Impact Assessment but the results will be fed into the Environmental Statement. 	

Minutes

A303 Stonehenge – Amesbury to Berwick Down

<ul style="list-style-type: none">• Design team are developing the design, keeping heritage at the forefront of the minds of all those working on and inputting to the design. HMAG members also attend design team meetings and input to the design as it is being developed. The design is being developed to minimise adverse impacts on the OUV of the WHS. The Scheme will remove the sight and sound of the existing A303 from the landscape and provide opportunities to reconnect the WHS landscape for public access.• The impacts on the OUV of the WHS will be assessed against the 7 attributes set out in the WHS management plan, and the authenticity and integrity of the WHS. The attributes relate to the Neolithic and Bronze Age ceremonial and funerary monuments and associated sites. The relevance of artefact scatters as evidence of Neolithic and Bronze Age settlement is recognised.• The HIA Scoping Report will be circulated to the Committee for comment once it has been agreed with HMAG, Highways England and DCMS.	
AOB	
<ul style="list-style-type: none">• BC has received a copy of correspondence from Rachel Hosier with a 10 page letter ranging from asbestos to ordinance to druids to destruction of archaeology.• A discussion was held over suspected damage to archaeology on Mrs Hosier's land.• BC suggested that David Jacques should be invited to give a short presentation to the Committee to explain the importance of his excavations at Blick Mead.• Plan to have the next Scientific Committee meeting in Birmingham or another location to facilitate attendance by all members in the second half of January.	



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LEGEND

▲ UNITS BY ROAD	▭ RED LINE BOUNDARY
▭ UNITS BY FOLIO	▭ AREA OF INTEREST FOR
▭ FINE-GRID 8 - LINES OVER AND BOUNDARY	▭ SCHEDULED
▭ TRENCH LAND BOUNDARY	▭ PROPOSED TRENCH STORAGE LOCATION
▭ SCHEDULED BOUNDARY	▭ LAND FEATURES TO AIR QUALITY
▭ AVENUE AND SERVICE PATH FEATURES	▭ 30-24 BRASSIAGE TREATMENT AREA

Numbering Scheme	Description	Numbering Scheme	Description
1	Access Point	9	China House
2	Parking	10	Hazards
3	Plot 127	11	Hazards
4	Potential Burial Site	12	Hazards
5	River Avon SSSI	13	Trench 24
6	Bridge Across River Avon	14	Trench 19
7	Access Required	15	Diana's House
8	Plot 128 - Blick Mead	16	Viewing Point

highways england

WSP

FIT FOR REVIEW AND COMMENT		Category	E3
Project Title			
A303 AWESBURY TO BERWICK DOWN			
Drawing Title			
Land owned by D Cornaby-Ried in relation to the Consultation Plan			
Scale	1:2,500	Drawn by	AC
Author	AS	Checked by	AC
Date	19/07/2018	Reviewed by	WSP/2018
Project Number	10012018		
Sheet	P01		

Bush, Mark

From: David Jacques [REDACTED]
Sent: 20 February 2018 13:07
To: [REDACTED]
Cc: Bush, Mark
Subject: FW: Blick Mead - new carbon dates and other news
Attachments: Contexts 308 309 E facing pre-ex procedure.jpg; aurochs hoof prints.jpg; Highways map of Blick Mead and Abbey areas.pdf

Dear Celia,

Mark Bush kindly mentioned that it would be useful for you and your colleague to have an account of the meeting I had with Highways England on the January 29th and of related events subsequent to that. Here is that account below, plus an email response from Phil McMahon who is leading for Historic England in terms of the Stonehenge Tunnel scheme.

I am more grateful than I can express for your time with this.

Best wishes, david

Meeting with Highways England and landowners of Amesbury Abbey Nursing Home and Blick Mead

On January 29th I attended a meeting at Amesbury Abbey Nursing Home, a Grade II listed building, at the behest of the owners. They also own Blick Mead as part of the wider Abbey estate. The meeting involved the following – a four strong Highways England team led by David Bullock, Project Manager for the Tunnel, the landowners David and Naomi Cornelius-Reid, and myself. The meeting discussed visual impacts on Amesbury Abbey, which is within sight of the planned flyover for the Stonehenge Tunnel, and impacts on the archaeology at Blick Mead.

In respect of Blick Mead David Bullock confirmed that –

- 1) There will be a flyover built on the footprint of the A303. This is intended to filter traffic to the Eastern Portal for the tunnel. The flyover will be adjacent to Blick Mead running east-west immediately to the north of it. The flyover footprint will be within 3m of Trench 23, which has yielded thousands of Mesolithic stone tools, evidence for habitation and a radio carbon date of 6698-6531 cal BC connecting it to the time of the building of the first monuments on the Stonehenge Knoll (which “date to the earliest stages of Blick Mead so it is likely that people gathering there were responsible for erecting them.” Mike Parker Pearson, 3-4 ‘Stonehenge: making Sense of a Prehistoric Mystery, 2015). All of the main trenches at Blick Mead are within c.30m of the flyover. Trench 24, which contains the remains of the earliest dwelling structure and the well preserved aurochs hoof prints, is within c 15 m from it.

The proposed eastern portal is to be sited c. 500m of Blick Mead.

Context - Blick Mead as a whole has yielded seventeen radio carbon dates from the Mesolithic period spanning c.8000-4000 BC making it - “the longest proven occupation of a British Mesolithic site.” (Francis Pryor, 43. ‘Stonehenge: The Story of a Sacred Landscape’ 2016). The dates have been obtained from organics which have been preserved in the oxygenated conditions which the spring area provides. The eight

5th millennium BC dates are of particular interest as they connect late hunter gatherer culture with the earliest farmers coming in from the continent at the beginning of the Neolithic. As such, the site is unique in the British Isles and it provides a data base for a new understanding of why Stonehenge was built where it was.

Further, the discovery of well preserved aurochs hoof prints under a stone surface, which we now know dates to the late Mesolithic, is unique for a British inland site (see attached). Their preservation points to there being very high potential for other eco facts to be well preserved in the vicinity. A team from Southampton University took soil samples from the immediate area and are analysing them for seDNA, a DNA and pollen. Bryony Rogers of Durham University has examined the toe bones found close to the prints and has identified them as coming from a large aurochs. Eamonn Baldwin's geophysical survey of the surface area (see attached - contexts 308 and 309) reveals that it extends about 10m, running N to S. There is no late hunter surface like this in North Western Europe. We think it is likely that there will be other prints preserved under the surface, including human.

- 2) During the meeting David Bullock said with emphasis that Blick Mead had been assessed in terms of the effects building the flyover would have on its water table - which is so crucial for preserving the organics at the site. However, both the landowners and I were aware that this was untrue as the landowners would have had to have given permission for such work to be conducted at Blick Mead. After a 15 minute discussion, which was heated, David Bullock conceded that no investigations of the water table at Blick Mead had in fact taken place. This despite the site's results being detailed in one academic journal paper (2014), three articles in *Current Archaeology* and featuring in detailed project design reports to heritage stakeholders (English Heritage, National Trust, Historic England and Wiltshire County Council) since 2013, as well as in the national media, including BBC2's Horizon programme. Indeed, he unintentionally revealed that they did not even have an accurate idea of where the site is - please see the latest Highways map which was distributed at the meeting and which I took a photograph before returning it attached. Our trench plans (see attached) shows that trenches 19 and 24, listed on the Highways key for the map, are in completely the wrong place and sited well away from the flyover.
- 3) I was told that the current consultation period will last for about 10 weeks with the recommendation to build the tunnel and flyover being made this September. The last chance to make any sort of challenge to the scheme being December this year.

As a result of the 29th of January meeting and the ensuing media coverage I instigated, I have been invited to present a paper on the data found at Blick Mead to the Highways England Scientific Committee this Friday, the 23rd of February (the same day I find out if our project has been awarded 'Research project of the Year 2018' by *Current Archaeology*). I have also been invited to attend a meeting with Highways representatives on the 8th of March at the Society of Antiquaries in London. I have also received an email in response to mine from Phil McMahon who leads for Historic England in terms of the tunnel scheme (see below).

On February 28th our monograph on the site will be published - 'Blick Mead: Exploring the First Place in the Stonehenge Landscape' by Peter Lang (Oxford). This will contain contributions from 8 different universities plus two from the Natural History Museum and one from the Stonehenge Hidden Landscapes Project. I understand that this book should be part of the 'evidence' assessed as per the dictates of the consultation process.

- **McMahon, Phil** <Phil.McMahon@HistoricEngland.org.uk>

To: david jacques, PETER A. ROWLEY-CONWY, Bryony Rogers, Brown A., Ben Pears and 10 more...



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LEGEND

	LISTED BUILDING
	ACCESS ROUTE
	RED LINE BOUNDARY
	AREAS OF VEGETATION
	PATHWAYS
	FENCED LAND OWNERSHIP BOUNDARY
	PROPOSED TOPOGRAPHICAL STORAGE LOCATION
	LAND RETURNED TO AGRICULTURE
	SCHEDULED MONUMENTS
	RIVERS AND SURFACE WATER FEATURES
	BAD DRAINAGE TREATMENT AREA

Numbering Scheme	Description	Numbering Scheme	Description
1	Access Point	9	China House
2	Parking	10	Hazards
3	Plot 127	11	Hazards
4	Potential Burial Site	12	Hazards
5	River Avon SSSI	13	Trench 24
6	Bridge Across River Avon	14	Trench 19
7	Access Required	15	Diana's House
8	Plot 128 - Blick Mead	16	Viewing Point

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wsp

Project Title: A303 AMESBURY TO BERWICK DOWN

Drawing Title: Land owned by D Cornelius-Reid in relation to the Consultation Plan

Scale: 1:2,000

Original Date: 18/01/2018

Drawn: AD

Checked: LC

Approved: JB

Date: 19/01/2018

Drawn: AC

Approved: AC

Date: 19/01/2018

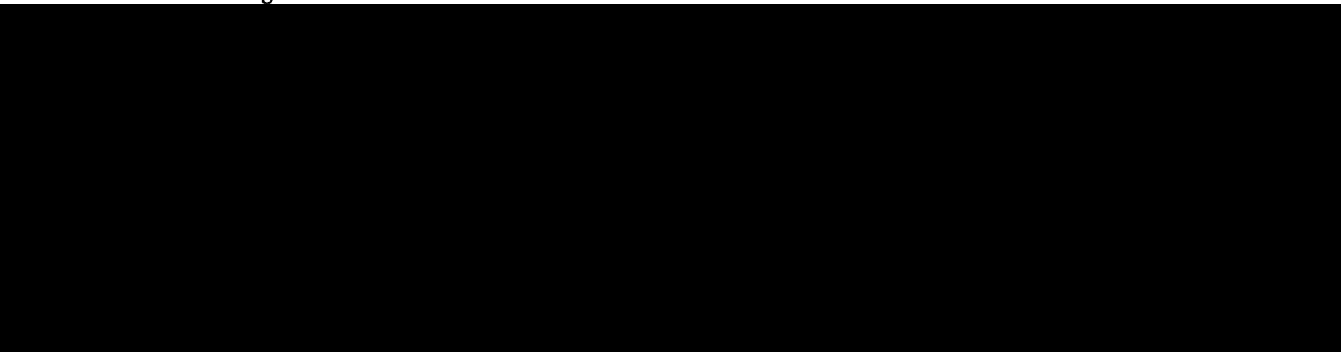
Project Number: 100039546

Revision: P01

Siv Elisabeth Hveberg

Fra: Siv Elisabeth Hveberg
Sendt: 29. april 2019 21:58
Til: Siv Elisabeth Hveberg
Emne: VS: Blick Mead - new carbon dates and other news

----- Forwarded message -----



Sent: Monday, 29 January 2018, 15:52:56 GMT
Subject: RE: Blick Mead - new carbon dates and other news

Dear David,

Thanks for keeping me posted on the results from Blick Mead – very interesting to hear of further research on the stone spread and of the hoof prints. I'm glad that Eamonn was able to help you out with the geophysics – would you be able to share a plot of the results? It would be useful to understand the extent of the feature and its potential monumentality. Could I also please enquire about the broad programme for publication of the results (as opposed to interim reports on seasonal excavations)? If the profile of the site is likely to rise as a result of new discoveries, then the ability to properly understand its significance can only be realised through appropriate publication.

I note your comments about the recent meeting with Highways England. I'm copying this reply to Andrew Clark, who is leading for them on co-ordinating environmental matters, as I feel its important they have the opportunity to respond on the points you make. I am aware, as others may be, that there have been significant delays beyond their control in accessing the relevant land parcels to undertake groundwater assessment, and that this has been as frustrating for them as it has for those of us keen to understand the results of such assessment.

It remains my view that it is very unlikely that Blick Mead's archaeological significance will be negatively impacted by the road scheme. Even if there were no heritage constraints at this location, the proximity of the Avon to the scheme here, its protection as a Special Area of Conservation, and its critical sensitivity to both abstraction and pollution would mean that Highways England would have to demonstrate no impact on groundwater feeding the Avon. However, we keenly await the groundwater investigation and its results. The addition of a new, nationally-significant archaeological site which may rely on an anaerobic environment to maintain its significance only adds to the need for Highways England to clearly demonstrate the sustainability of their proposals.

The proposals at Countess junction do have the potential to impact upon the setting of the Grade II* Registered Park & Garden, Vespasian's Camp Iron Age Hillfort Scheduled Monument and the Amesbury Conservation Area (which is contiguous with the RPaG at this location). None of these particular heritage assets relate to the Neolithic and Early Bronze Age scope of the WHS inscription, but they are nonetheless significant in their own right. All of these potential

impacts, alongside all other environmental impacts, need to be properly assessed before a scheme application can be submitted.

I was pleased to hear that you have accepted the invitation to talk to the A303 Scientific Committee about the research at Blick Mead. I'm sure it will be a valuable and constructive opportunity for the independent archaeologists on the committee to learn more about the site and its sensitivities.

I've also copied this email to Melanie, the county archaeologist, who is normally the lead point of contact on undesignated archaeological sites in Wilts.

With best wishes,

Phil

Phil McMahon

Inspector of Ancient Monuments

Planning Group

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Minutes

A303 Stonehenge – Amesbury to Berwick Down

Title:	Scientific Committee		
Date:	23 February 2018	Time:	10:00 – 16:30
Location:	The Bowman Centre, Shears Drive, Amesbury, Wiltshire, SP4 7XT		

Attendees:

Scientific Committee

Professor Sir Barry Cunliffe (BC)
 Dr Mike Allen
 Dr Andrew Fitzpatrick
 Dr David Field
 Mike Pitts
 Dr Colin Shell
 Professor Vince Gaffney
 Dr Josh Pollard
 Professor Mike Parker Pearson
 Professor Nicky Milner – via Skype

HMAG

Melanie Pomeroy-Kellinger (Wiltshire Council) (MPK)
 Dr Nicola Snashall (National Trust)
 Phil McMahon (Historic England) (PM)
 Kate Davies (English Heritage)

 Leslie Smith (Highways England)
 Andrew Clark (Highways England) (AC)
 Chris Moore (AmW) (CM)
 Huw Sherlock (AmW)
 Andy Mayes (AmW)

Apologies

Professor Tim Darvill
 Professor Clive Ruggles
 Professor Oliver Craig
 Julian Richards
 Dr Heather Sebire

Chair: Sir Barry Cunliffe

Agenda Item	Action
Welcome	
<ul style="list-style-type: none"> No comments had been received on the minutes from the previous meeting 	
Presentation on Blick Mead by David Jacques (DJ) and Tony Brown	
<ul style="list-style-type: none"> The Chair welcomed DJ and TB to the meeting. He explained that the committee was keen to learn details of the Mesolithic site at Blick Mead, arising from the excavation, to enable it to arrive at an understanding of the effects of the rerouting of the A303 on the archaeology of the site. The waterlogging of the site and the possible effects of a lowering of the water table were of particular concern In their presentation DJ and TB made the following points. The Andrew's Map of 1773 shown showing Blick Mead in relation to the River Avon floodplain The Blick Mead excavation teams were able to dig for only 14 days between 2005 and 2010 due to land access restrictions. The Antrobus family are reticent about allowing access (mentions Pitt Rivers and Charles Darwin being refused access) so time restrictions were respected stringently by the excavators. 3 trenches extending below 50cm were started in 2010 Overburden from 1960's road widening sealed deposits with unstratified microliths ranging in date from early- late Mesolithic. This represents a very significant assemblage, cited Darvill, T's 2006 comment that <i>'little can be said about either the technological or cultural relationships of the 7th -5th millennium BC from the material around Stonehenge as there is simply not enough of it to judge'</i>. The water table was encountered in all trenches at c. 0.5m below ground level. 	

- 100% sieving of deposits from Trench 19 through 5mm and 2mm mesh sizes using bespoke equipment designed by Tony Legge.
- Currently only 190 square metres have been excavated.
- Faunal remains - approximately 2500 well preserved animal bone fragments have been recovered with little or no sign of rolling, indicating this is not a secondary deposit. The bulk of the animal bone was found in trench 19, this includes an unusually high proportion of auroch bones, but includes other species (cited Simon Parfitt's analysis) such as marten, salmon and trout and a toad bone (that may show signs of having been cooked).
- Cited Sophie Charlton's ZOOMS analysis which showed that of 20 identified bones 12 were from aurochs.
- Some evidence of cut marks on bone.
- Isotopic analysis of a dog tooth of 5th Millennium date shows evidence of long distance migration.
- Only 3 trenches (19, 22 & 23) within the spring area have been excavated into the waterlogged areas to a depth greater than 0.5m (below the water table).
- Trench 19, measuring 18 square metres has produced a density of 3000 pieces of struck flint and 9000 pieces of burnt flint per square metre from the Mesolithic horizon.
- Radio carbon date range from 8000BC to early- mid Neolithic with a concentration in the late 5th millennium BC.
- Confirmation that work up to the 2016 season will be published on 1st March
- Tony Brown presented on the environmental setting.
- Mentioned work by Reading University (2013, to be included in forthcoming publication) who put a transect (not complete) of boreholes across the site from the terrace edge into the floodplain.
- A question was asked as to whether the waterlogged deposit extends up to the current A303 corridor. The answer given was yes, and beyond this, there is an extensive floodplain aquifer.
- 3 boreholes represent a transect from the edge of the dry land site, from the old river bank out onto the floodplain.
- Enough peat was retrieved to allow pollen analysis in 2 locations (site 2 and site 1), but these were not directly linked to the archaeology and the basal date was 2620 cal BC so too late for the site, but shows that pollen sequences are preserved.
- Beetle evidence from the waterlogged trenches, (19 & 22) and within the Mesolithic horizon showed an interesting range of habitats, even from the preliminary analysis. Water beetles from slow moving water, probably a cut off channel. Temporary grassland, ponds, decaying vegetation, a weevil that lives on clover and a wood ant. No evidence of species living in closed canopy woodland.
- LIDAR data shows a series of scars from a palaeochannel which originated in the late glacial period, becoming a secondary channel by the Mesolithic period. The main channel probably lay to the south of Blick Mead. There is evidence of two or three superimposed palaeochannels banked up against the edge of the floodplain.
- The edge of the floodplain and the surface aquifer coincide at this point.
- The borehole closest to the edge of trench 24 produced a very good range of dryland grasses, including plantain.
- 41 pollen types found – overall indication is that in the Mesolithic the site lay in a large clearing at the edge of the floodplain. Fungal spores from dung were also found, indicating the presence of herbivorous mammals.
- This core contained a microlith.

- Results of DNA analysis not yet available (delayed by PCR, but is now in sequencing in Grenoble). Site has good potential for DNA sampling, being waterlogged and has also been protected from drying out by the 1960's road building spoil.
- Bone is well preserved and material is proximal
- Simple approach to DNA sampling has been used, metabar coding, using a p6 loop on the chloroplasts of plants and the most reliable mammal prime.
- DNA seems to bind best to clay, and then remains stable so there is enough with 50 base pairs or more to get good results.
- The Chair thanked the presenters for an effective presentation which demonstrates the value of the site and it's potential. .
- A question was asked about the potential for further sites in the area with similar levels of preservation in association with lithic scatters. DJ cited the work by Wessex Archaeology to the north of the A303 and the geophysics results from the Stonehenge Hidden Landscapes project which are suggestive of waterlogged conditions.
- A discussion of the stratigraphic integrity of the site concluded that horizons within the dry areas on the bank of the palaeochannel can be directly related to those within the waterlogged areas, which is a rare occurrence.
- A discussion was held around the possibility of peat on the site – peat bodies have been identified closer to the Countess Roundabout and the potential should be considered for these to survive beneath the existing roundabout and approaches. This could be of great environmental potential in relation to Blick Mead and the other Mesolithic deposits recorded on the north side of the A303.
- Evidence was found during excavations by Geoff Wainwright that some of this peat was removed when the road was constructed between 1963-1968.
- [Post-meeting note: the preliminary geotechnical report for the 2005 published scheme quotes work undertaken by Halcrow in 2000 as part of a an options report for Countess junction. This geotechnical work found that:
 - The existing embankment is formed of very dense fill of placed and compacted chalk.
 - Comparison of trial pit logs with those of the 1965 boreholes indicates that the soft, alluvial materials [including peat] were removed, prior to placement of this fill, with the embankment being founded on the river gravels (or possibly an engineered granular starter layer).
- An accompanying profile and test pit logs from the Halcrow 2000 report are appended to these minutes, for information]
- CM commented that even if some peat remains the effects of surcharging from weight of the embankment are likely to already have happened.
- AC described the details of the Proposed Scheme in the zone close to Blick Mead.
- PM confirmed that the Planning Act and NPPF made clear that allowing substantial harm to archaeology of the highest significance should be wholly exceptional. In seeking to avoid substantial harm, the recently updated Historic England guidance on preservation of remains in situ is relevant, notably Appendix 3 which deals with remains in water environments. These guidelines have been sent to the committee. A detailed assessment using the tiered approach given in the guidelines in relation to the results from Blick Mead needs to be prepared and circulated.
- CM noted that discussions between AmW and PM and Jim Williams, EH chief scientific adviser are ongoing and the iterative approach set out in the Historic England guidance to assessing the potential effects of dewatering, principally on the aquifer, of the scheme will be undertaken.

<ul style="list-style-type: none"> • DJ asked what the current programme to submission of the DCO is, and whether local monitoring of ground water would take place at Blick Mead over the seasonal cycle to inform this. • AC replied that the DCO is currently due to be submitted in late summer. Hydrogeological modelling of the chalk aquifer across the Stonehenge area has been undertaken using Environment Agency data and bespoke borehole data and monitoring undertaken over the last 18 months as well as data gathered for the published scheme. • TB noted that the work undertaken at Star Carr showed that having a shallow ground water model at a sub 10 metre scale is essential to effectively model potential impacts on waterlogged environments as the relative amounts of water are small and the loss of 10-20 cm of groundwater would have major impact on shallow deposits. Inserting a series of dip wells for gathering data of this kind is not an onerous task (either in terms of labour or cost). • VG noted that having the finer grained analysis of the local water environment is just as important as understanding the broader scale hydrogeology. • DJ noted that detailed assessment has not yet been carried out at Blick Mead. • The Chair asked if the types of modelling outlined by TB and in the guidelines would be insisted on by Historic England. PM replied that this must be the case. • CS noted that this would need to be of at least twelve months duration to cover seasonal variations. • TB indicated that he would be prepared to work with the project team to monitor variations in the water table in the immediate vicinity of the site over a period of time. • BC stated that the Committee would work to ensure that the construction methods used on the road sector past the site would have as little impact on the archaeology as possible. Preservation would be preferred to mitigation.. • DJ aims to make a proposal to National Trust for a bigger trench to assess survival of ecofacts moving away from Blick Mead (north of the A303). • DJ asked for an opportunity to come back for another presentation. • A discussion was held around working in collaboration with DJ with future work for the A303 scheme. • The chair thanked DJ and TB for offering such a full and interesting presentation of the site and said that the committee would welcome an update in due course. TB's offer of collaborating in the monitoring of the water table was particularly valuable. He hoped it would be acted on as a matter of urgency. He said that the Committee were concerned to ensure that any effects that roadworks might have on the archaeology of the area would be mitigated in the most effective way possible and to the highest of standards 	
<p>Minutes and Actions</p>	
<ul style="list-style-type: none"> • SSWSIs for the eastern and western portals and for investigations relating to GI works at Stonehenge Bottom had been circulated to members for information. It was noted that the minutes of the previous meeting recorded that SSWSIs would be circulated for comment. This had not been done. It was explained that time had been very short and the SSWSI's closely followed the guide lines laid down in the Evaluation Strategy and the Overarching WSI which had been circulated in draft and commented on. The Chair said that if any member had comments they could be sent in for consideration. • Minutes accepted 	

Kate Fielden's Letter	
<ul style="list-style-type: none"> • BC received a paper from Kate Fielden on OUV. With KF's permission it had been circulated to members. The paper was discussed. • Confirmation was received from PM that all work on OUV has been done in accordance with published guidance. • BC suggested that HE should be asked for a written response to the issues raised in KF's paper and that both should be placed on the Members only section of the website for future reference. • PM to provide Historic England's position on OUV. 	PM
ICOMOS Mission	
<ul style="list-style-type: none"> • Confirmation that the next Advisory Mission is in early March and only for three days. • Itinerary will be one day on the scheme, one day on archaeology and one day on stakeholders; • Detail of the third day to be circulated early next week. • The Chair has been invited by Highways England to meet the Mission as a representative of the Scientific Committee. Scientific Committee members will be able to comment on the consultation as individuals, a consensus Committee position is not required under the Terms of Reference. 	PM
Scientific Committee Website	
<ul style="list-style-type: none"> • Thanks to all who have sent photos and biographies for the website. Just one member left and MPK will chase • Members only section up and running and a reminder of the username and password was circulated at the meeting. MPK agreed to amend the access to this part of the web site as currently the login is difficult to find. 	MPK
Preferred Scheme Presentation	
<ul style="list-style-type: none"> • Presentation by AC – description of the scheme given while running through visualisation video of the Proposed Scheme. • Confirmation that no extra lighting will be added to Countess Roundabout, just upgraded and modernised. • AC confirms that feedback on the scheme is requested now and throughout consultation – feedback forms were given out. • A discussion was held around green bridges and the potential number and locations of these. The consensus was that more and bigger green bridges would be preferred in respect of the western approach cutting. 	
Progress to date with ongoing Archaeology	
<ul style="list-style-type: none"> • CM presented an update on the archaeological evaluation programme. The Evaluation Strategy and Overarching WSI have been circulated for comment; CM confirmed that comments provided by the Scientific Committee have been taken on board. • CM described the 6 SSWSIs that flow from these strategic documents. BC said that he thought these were comprehensive and demanded an exacting standard. • Work is ongoing on site at the Eastern Portal – fieldwalking, test pitting and trial trenching. The committee would visit the work in the afternoon. 	
HIA Presentation	
<ul style="list-style-type: none"> • LS to send HIA Scoping Report to all committee members. <i>Post meeting note – this has been done.</i> • BC thought that HIA Scoping Report is very thorough. • CM gave an overview of the HIA – purpose and contents. <ul style="list-style-type: none"> ○ OUV of the WHS and the attributes of OUV ○ HIA method ○ Impact of current A303 	LS

Minutes

A303 Stonehenge – Amesbury to Berwick Down

<ul style="list-style-type: none">○ Potential impacts of proposed scheme○ Mitigation measures• Timing of HIA to be in parallel with the EIA and to go into the DCO application (September)	
AOB	
<ul style="list-style-type: none">• MPK mentioned that the building we were in "Bowman Centre" was named after an important archaeological find (graves of the 'Amesbury Archer' and Boscombe Bowman) which were found a short distance away in 2001. The excavation has been published by a member of the Committee, Andrew Fitzpatrick. The whole of the housing development, known as King Gate and Archers Gate, has been excavated over the last few years and found to be rich in archaeological remains from the Prehistoric and Roman periods, including five Roman cemeteries.	

Siv Elisabeth Hveberg

Fra: [REDACTED]
Sendt: 29. april 2019 15:43
Til: Siv Elisabeth Hveberg
Emne: Fw: Blickmead Geophysical Surveys

McMahon email 28/2/19

[REDACTED]

Sent: Wednesday, 28 February 2018, 09:30:02 GMT
Subject: RE: RE: Blickmead Geophysical Surveys

Hi David, Eamonn,

A very useful meeting I thought on Friday last – we'll ensure that the groundwater assessment is thorough, robust and transparent. Tony's expertise and offer to assist with on-site water table/flow assessment was very positive and I'm asking Highways' archaeology consultants to engage constructively with you & Tony so that the fullest possible picture of Blick Mead's groundwater sensitivity can be acquired.

I'm hoping to order a copy of the monograph today or tonight and am very much looking forward to reading it. One thing did occur to me – the Scientific Committee would all benefit from being able to access the monograph to increase their understanding. Is there any way that the Committee could obtain a pdf. Version that could be held on the 'members-only' section of the Scientific Committee website, that they could view on the basis that it is not reproduced or disseminated more widely? (my concern being that facilitating this didn't prejudice of sales of your monograph).

Eamonn – many thanks for the images. Fascinating and now critical that we understand the date, nature, character and extent of this feature to identify whether it is of anthropogenic origin.

Copied to Barry & Andrew for info.

Best wishes

Phil

Phil McMahon

Inspector of Ancient Monuments

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From: david jacques [REDACTED]
Sent: 23 February 2018 13:35
To: McMahon, Phil; David Jacques; e.p.baldwin; Eamonn Baldwin
Subject: Re: RE: Blickmead Geophysical Surveys

Thanks very much Eamonn - and for everything you did for Tony's and my presentation earlier. Know how busy you are.

Thanks for being there at the meeting Phil.

All best wishes, d

On Friday, 23 February 2018, 10:23:40 GMT, Eamonn Baldwin <baldwin.eamonn@gmail.com> wrote:

Dear Phil,

Please find attached, as requested, four images illustrating the preliminary results of a resistance survey I carried out for David last year at Blickmead.

Hope you find them useful. I'm happy for you to show them to your remote sensing colleagues at Historic England but would appreciate if they are not distributed as they are still unpublished.

(survey details: twin Probe resistance survey, 75cm probe spacing, 50cm x 50cm sampling)

Many thanks - hope they are useful.

Best wishes,

Eamonn

----- Forwarded message -----

From: [REDACTED]
Date: 23 Feb 2018 10:06 am
Subject: FW: Blickmead Geophysical Surveys
To: "[REDACTED]"
Cc:

Phil.McMahon@HistoricEngland.org.uk

• david jacques [REDACTED]

To: Brown A.

18 Apr 2018 at 14:20

Hi Tony,

it was good to meet and your presence and contributions meant for a positive result. Pleased that Phil M dropped the heavy hint at the end that he would not sign off HE's approval without the work you suggested at BM being done (and paid for by Highways).

[REDACTED]

The best wishes and thanks, d

Hide original message

On Monday, 16 April 2018, 20:04:55 BST, Brown A [REDACTED] wrote:

Good to meet even if meeting a bit tardy.. i meant to ask who at Buckingham do i email to get Buckingham to send us a purchase order for the DNA as this is the only way we can do it.
Thanks
Tony

David Jacques

Actions

To:

Phil.McMahon@HistoricEngland.org.uk

Sent Items

Wednesday, May 02, 2018 12:41 PM

This message was sent with High importance.

Hi Phil,

David Cornelius-Reid, owner of Amesbury Abbey and Blick Mead, has been asked by Jack Parris to give permission for a Highways team to make a non intrusive survey and set up water monitoring probes in various locations on his land (see below). David has involved me and I have asked Jack some follow up questions in order to get a clearer idea of the work he is proposing (see below). I'm very keen that the work proposed fits with what I understood was agreed at the end of our meeting in London on 16th of April.

Jack's responses to my questions state that -

- 1) Any boreholes are "yet to be agreed."
- 2) Highways is still not committing to a year long all season shallow water measuring survey at Blick Mead.
- 3) Any monitoring work won't start until the autumn.

It is not clear from Jack Parris's email that any monitoring work at Blick Mead by name is proposed at all. His response in 2 implies they will be only undertaking work at sites they have already been monitoring.

The above does not reflect my understanding of the agreement I thought had been reached with Highways et al at the end of the meeting we had with them in London 16/4/18. I thought there was a consensus that the local water table at Blick Mead needed to be very carefully monitored across all the seasons and with the appropriate equipment.

I really do appreciate how busy you are Phil, though possibly even then underestimate it, but if you could give me a steer as to what works you think are appropriate and can involve Jack Parris in that response I would be most grateful. Blick Mead's hydrology must be carefully monitored - we need to get a programme of works agreed asap.

All best wishes and thanks, david

David Jacques
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG

Email: 

From: Parris, Jack [Jack.Parris@wsp.com]
Sent: Tuesday, May 01, 2018 10:10 AM
To: David Jacques; David Cornelius-Reid
Subject: RE: Amesbury Abbey Spring Visit

Dear David,

Thank you for your email I have been discussing with the right teams to provide you with response to your queries.

1. DJ - Can you detail what exactly you will be doing in the spring and wetland areas in and around Blick Mead please?

The Survey will be a non-intrusive walkover and evaluation of possible monitoring sites.

2. DJ - Can you provide what you programme of work is?

Having been to the Abbey before to take samples we would return to the same sites and take further samples. Also measure water levels in the pond, river and spring. At a future date, subject to permission, we would wish to install staff gauges, water level monitoring probes and stilling wells (small pipes) at these locations. Also at a future date to carry out a survey of the locations i.e. a survey to record location and elevation of monitoring points.

3. DJ - The meeting in London with your representatives and Historic England ended positively with a recommendation that Highways conduct detailed shallow water measuring at Blick Mead, and set up bore holes therein, to be measured over one year. Is that the work you are proposing here?

Monitoring of levels were discussed. We would monitor for a period of time to observe seasonal change but the findings will determine the length of time the monitoring is required therefore not necessarily over one year but over a period of time so that we can observe how the levels respond. Boreholes have yet to be agreed and may not be added until the autumn.

4. DJ - The meeting also concluded that people would be needed to read the bore holes measurements on a weekly basis and it was proposed that trusted local people who had experience could do that. Has someone been approached? Mike Clarke, Site Custodian for Vespasian's Camp, was proposed in the meeting on the basis that Highways representatives had had dealings with him in the past.

This level of detail has not been discussed but it is more likely that levels would be recorded by means of automatic data loggers with verification visits every few months as we are doing elsewhere in the catchment.

Following on from these response please let me know if you would both be happy for this visit to take place.

Kind Regards,

Jack Parris, Lands, A303 Stonehenge, Land Consultant
Highways England | Temple Quay House | 2 The Square, Temple Quay | Bristol | BS1 6HA

WSP | 70 Chancery Lane | London | WC2A 1AF
T: 02030572113 [REDACTED]
wsp.com

From: David Jacques [REDACTED]
Sent: 26 April 2018 12:32
To: David Cornelius-Reid <david@amesburyabbey.com>; Parris, Jack <Jack.Parris@wsp.com>
Subject: RE: Amesbury Abbey Spring Visit

Thank you David.

Indeed Jack, can you detail what exactly you will be doing in the spring and wetland areas in and around Blick Mead please. Can you provide what you programme of work is? The meeting in London with your representatives and Historic England ended positively with a recommendation that Highways conduct detailed shallow water measuring at Blick Mead, and set up bore holes therein, to be measured over one year. Is that the work you are proposing here? The meeting also concluded that people would be needed to read the bore holes measurements on a weekly basis and it was proposed that trusted local people who had experience could do that. Has someone been approached? Mike Clarke, Site Custodian for Vespasian's Camp, was proposed in the meeting on the basis that Highways representatives had had dealings with him in the past.

Best wishes and looking forward to hearing from you, david

David Jacques
School of Humanities
The University of Buckingham

Buckingham, MK18 1EG

Email: [REDACTED]

From: David Cornelius-Reid [david@amesburyabbey.com]

Sent: Wednesday, April 25, 2018 5:03 PM

To: Parris, Jack

Cc: David Jacques

Subject: Re: Amesbury Abbey Spring Visit

Dear Jack.

Under other circumstances I would give you the go ahead for the survey. However, given that I assume you are referring to the spring at Blick Mead, situated by the summer house, I have to refer the matter to David Jacques for comment before such surveys can be carried out. Im sure you are aware just how sensitive the area is, and as such, given the importance of the site to Buckingham University, Davids full agreement has to be considered.

I will hopefully email you later in the week.

Kind regards

David

David Cornelius-Reid

The Amesbury Abbey Group

www.AmesburyAbbey.com

www.RetirementVillagePortugal.co.uk

T 01980 622 957

Amesbury Abbey

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Wiltshire

SP4 7EX

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From: "Parris, Jack" <Jack.Parris@wsp.com>

Date: Wednesday, 25 April 2018 at 16:37

To: David Cornelius-Reid <david@amesburyabbey.com>

Subject: Amesbury Abbey Spring Visit

Dear David,

I hope you are well.

I have been asked to contact you by the groundwater team, they were wondering if it would be possible to visit Amesbury Abbey next week to view the spring on the site in high groundwater levels and to measure the levels of the surface water feature near the Chinese House, and River where the bridge at the site crosses over it?

They would be able to carry it out on Wednesday, Thursday or Friday whichever is most convenient for you. Please let me know your thoughts and if you would be happy to grant access?

Kind Regards,

Jack Parris, Lands, A303 Stonehenge, Land Consultant
Highways England | Temple Quay House | 2 The Square, Temple Quay | Bristol | BS1 6HA

WSP | 70 Chancery Lane | London | WC2A 1AF
T: 02030572113 [REDACTED]
wsp.com

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG

Email: d [REDACTED]



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Sent Items

Friday, May 04, 2018 10:30 AM

Dear Phil,

Thanks very much - really appreciated. Please do forward my email and your response to Chris Moore.

All best wishes Phil, d

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG

Email 

McMahon, Phil [Phil.McMahon@HistoricEngland.org.uk]

Inbox

Friday, May 04, 2018 10:23 AM

Hi David.

Thanks for your email. My advice to Highways is just as Jim and I articulated at the London meeting - please do the assessment and include Blick Mead. You may have seen that we formalised this advice in our public consultation response. If you don't mind I'm going to forward your email to Chris Moore. to ask him to press on this matter.

With best wishes

Phil

Phil McMahon

Inspector of Ancient Monuments
Planning Group
Historic England
29 Queen Square Bristol BS1 4ND
Direct Dial. 0117 975 0699 Mobile [REDACTED]

Historic England is implementing a change programme that will include a reorganisation of duties and responsibilities, and some reinvestment of resources. It will take place throughout 2018, and is due for implementation by March 2019.

The aims of the change programme are:

- *A stronger organisation: more effective, more adaptable, more financially secure, focused on public value, fit for the future.*
- *A workplace that supports people to make the best of their abilities, embrace diversity, stay well, keep learning and enjoy their work.*

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Minutes

A303 Stonehenge – Amesbury to Berwick Down

Title:	Scientific Committee		
Date:	10 May 2018	Time:	09:30 – 16:00
Location:	Holiday Inn, Amesbury, Wiltshire, SP4 7SQ		

Attendees:

Scientific Committee

Professor Sir Barry Cunliffe
Professor Tim Darvill
Dr Andrew Fitzpatrick
Dr David Field
Mike Pitts
Dr Colin Shell
Professor Clive Ruggles
Professor Mike Parker Pearson

HMAG

Melanie Pomeroy-Kellinger (Wiltshire Council)
Dr Nicola Snashall (National Trust)
Phil McMahon (Historic England)
Dr Heather Sebire (English Heritage)

Andrew Clark (Highways England)
Chris Moore (AmW)
Neil Macnab (AmW)

Apologies

Professor Nicky Milner
Julian Richards
Professor Oliver Craig
Dr Josh Pollard
Professor Vince Gaffney

Chair: Sir Barry Cunliffe

Agenda Item	Action
Welcome and Apologies	
<ul style="list-style-type: none">As well as apologies for the meeting, the Chair has received a letter from Julian Richards, retiring from the Committee due to other commitments.	
Minutes and Actions	
<ul style="list-style-type: none">Last set of minutes approved, with a small amendment.	AC & MPK
Blick Mead Publication	
<ul style="list-style-type: none">Chair recorded the thanks of the Scientific Committee to David Jacques for his engagement and for the provision of a copy of his publication for the committee's benefit.The chair read out a note from Nicky Milner noting the significance of the Blick Mead site and drawing similarities between it and Star Carr.Further comment was made about the high quality of the publication and the level of clarity and information contained within it.Further discussion was had regarding the evidence presented and the impact that it has in relation to the importance of the site.Information was provided relating to meetings the project team had with David Jacques, with reference to a meeting with Tony Brown and Historic England's Scientific Advisor that made good progress in agreeing a way forward, this includes the tiered assessment in line with Historic England's guidance.A request was made to try and identify and investigate any potential issues caused by the PH of road drainage and if this is having an impact on the site.	AMW

Minutes

A303 Stonehenge – Amesbury to Berwick Down

<ul style="list-style-type: none"> • Future monitoring of ground water should provide evidence to compare with assessments undertaken to date. The benefit of longer term monitoring is that it will allow proactive mitigation to be undertaken if de-watering occurs as the result of other impacts on the ground water. 	<p>AMW/HE</p>
<p>Matters Arising</p>	
<ul style="list-style-type: none"> • ICOMOS Mission – attended site 5th to 8th March, which compressed the 5-day agenda into 3 days, and made for a very compact visit. The mission will produce their report in advance of the WHC in June, so we anticipate publication of the report in May. Committee members commented on their engagement at the Civil Society day and their part in the process. The chair had reported to the mission on the workings of the Scientific Committee. • Highways England gave a summary of the consultation, including reference to the extended duration because of severe weather impacts. Current evaluation of responses shows fewer replies than the previous consultation; this ties in with many comments of the “just get on with it” nature. The Statutory bodies provided an overview of their responses, and that they were generally in agreement with each other. Highways England confirmed their commitment to the current timescale as it stands with a DCO application being submitted in Autumn 2018. • Update on the Website; there was a request that a link to a report on the road scheme in ‘Salon’ be provided. MPK requested any other ideas to be emailed to her. 	
<p>Progress with Archaeological Evaluation</p>	
<ul style="list-style-type: none"> • AMW provided an overview of the results of the archaeological evaluation along with representation from Wessex Archaeology. • An overview of the current programme was given; Geophysics is almost complete for the entire scheme footprint, including work by Historic England and the Hidden Landscapes Project, and large amounts of the test pitting and trial trenching are underway/complete. • It was noted that contrary to current media articles about the weather conditions, the archaeological evaluation has been undertaken to a high professional standard, with ongoing monitoring by HMAG and WCAS. As a result of the wet weather encountered and in alignment with the Written Scheme of Investigation, the wet weather clause of standing down site works was enacted at least twice, to ensure the sites are protected from damage. WCAS are highly aware of the impact that wet weather can have, and it is high on their priority when monitoring the site works and are confident that no damage was caused during the evaluation. • Site reports continue to be drafted and will be issued out in due course. 	
<p>AOB</p>	
<ul style="list-style-type: none"> • AMW noted that they have employed an archeoastronomer, Dr Frank Prendergast, to ensure the HIA undertaken is robust in this regard. Clive Ruggles approved the choice. • Wiltshire are holding their Archaeology in Wiltshire Conference II on Sunday in Devizes. • Attention was drawn to the recent publication by Mike Pitts in British Archaeology with regards to the breadth of findings and archaeological investigation in and around the Stonehenge WHS. MPK highlighted that commercial archaeology has a high curatorial oversight and is required to have research aims, and that these are the focus of the works undertaken. Additionally, the most highly significant archaeological remains are preserved in situ rather than developed, as in the case of the Bulford Double Henges featured in Mike’s article. A request was made to have a link included on the committee website to the article. 	

Minutes

A303 Stonehenge – Amesbury to Berwick Down

<ul style="list-style-type: none">• Comment was made about a second visit to the Western Portal and approaches site, so that the trenching phase can be viewed. HE to arrange.	HE
--	-----------

Subject: RE: Blick Mead - Highways recent response about assessment work timings - Phil M

Dear David,

This is how I read it, but it should come from the horse's mouth as I can't speak for Highways England. I would recommend a straight question to them as you have written in your email, to clarify the matter.

Best wishes

Phil

Phil McMahon
Inspector of Ancient Monuments
Planning Group
Historic England
29 Queen Square Bristol BS1 4ND
Direct Dial. 0117 975 0699 Mobile. [REDACTED]

From: David Jacques [REDACTED]
Sent: 24 May 2018 15:26
To: McMahon, Phil
Cc: Williams, Jim
Subject: RE: Blick Mead - Highways recent response about assessment work timings - Phil M

Hi Phil, Ok, to be clear, I read your reply as in effect saying they will extend monitoring beyond the 12 months and into/during the construction phase – is that right?

Sorry to be pedantic, but we need to be absolutely clear.

Best wishes, d

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG
Email: [REDACTED]

david jacques [REDACTED] Andrew Clark (Bristol)
[Andrew.Clark@highwaysengland.co.uk]; Sladen, Jane
[jane.sladen@aecom.com]; Macnab, Neil [neil.macnab@aecom.com]; McMahon, Phil
[phil.mcmahon@historicengland.org.uk]

Inbox

Tuesday, May 29, 2018 11:28 AM

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Hi David,

Yes, I can confirm that the intention is to commence monitoring at the earliest opportunity, the monitoring will extend beyond 12 months and continue through the construction phase.

All monitoring will of course need to be agreed with the landowner in regards to the placing of monitoring equipment, and agreement for periodical visits to undertake readings and maintenance of equipment.

Best regards,

Chris Moore BA MCIfA
Deputy Heritage Lead, A303 Stonehenge Technical Partner
Highways England | Temple Quay House | 2 The Square, Temple Quay | Bristol |
BS1 6HA

From: David Jacques [REDACTED]
Sent: 25 May 2018 13:46
To: Moore, Chris
Subject: RE: Highways England - 'Amesbury Abbey Spring Visit'

Hi Chris,

As you know I have been in communication recently with Phil McMahon about the assessment work at Blick Mead. As you can see from the short email string below, PM has just suggested I ask you for a straight answer on the question I asked him. Be grateful for it.

Best wishes, david

From: McMahon, Phil [Phil.McMahon@HistoricEngland.org.uk]
Sent: Friday, May 25, 2018 1:23 PM
To: David Jacques
Cc: Williams, Jim



Historic England

From the Chief Executive

Duncan Wilson

Alex Burghart MP
House of Commons
London
SW1A 0AA

10 July 2018

Dear Alex,

I followed the recent debate in Westminster Hall on the Stonehenge tunnel scheme with great interest. Firstly, I want to thank you for bringing the scheme to the attention of parliamentarians. It is very clear that we all share the same goal in ensuring that the precious Stonehenge World Heritage Site (the WHS) is given the fullest possible protection.

As I'm sure you are aware, Historic England has been working alongside Highways England, English Heritage and the National Trust to make sure that the plans for the tunnel project protect and enhance the WHS. In our view, the tunnel would remove much of the existing barrier to the Stonehenge landscape that is caused by the A303, reuniting a landscape that has been severed for generations and allowing visitors to explore the whole of the site.

During the debate, you raised the point that some archaeologists have concerns about potential damage to the archaeology at the Blick Mead site at the eastern end of the proposed tunnel. As you impressed during the debate, their view is that the construction of the portal may affect groundwater conditions which could harm the remains at Blick Mead. You also mentioned that they use the example of water damage of the archaeology at a Mesolithic site at Star Carr in North Yorkshire as evidence of the damage that could be caused at Blick Mead.

It is our view that Star Carr is a very different site to Blick Mead. Star Carr has an unusually rich and diverse assemblage of organic archaeological and environmental remains that are dependent upon being waterlogged to maintain their significance, i.e., without being kept wet they will decay and be destroyed. Parts of the site are under threat through reduced groundwater flows, which in turn has lowered the water table. Archaeological excavation has been undertaken as a last resort to preserve a detailed record of the resource under threat.

Blick Mead has produced an exceptional quantity and quality of Mesolithic worked flint and animal bones, through research excavation of a small percentage of the site. Some of the animal bone is in such a good state of preservation that the site director believes that this is due to waterlogging. The recent publication of some of the excavations at the

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site does not clearly demonstrate this. Blick Mead has not yet produced the rich and diverse assemblage of the remains found at Star Carr. It has not been demonstrated that the site is dependent upon waterlogged ground to preserve its significance.

Even so, we have advised that Highways England install monitoring equipment and they have agreed to do so. This will also inform future variations in groundwater levels through (for instance) climate change or increased river abstraction for local populations. However, Highways England's own assessment thus far indicates that the A303 improvement will have no impact upon Blick Mead or its water environment. The Blick Mead site lies wholly outside the A303 works area. There will be no direct impact upon the site from the road scheme, which will only involve minor works in the vicinity of the site. The major infrastructure such as the tunnel and its portals and the Countess Junction improvements are well away from the site and will have no impact upon it. We agree with this assessment.

Regarding the scheme as a whole we believe that it is a great improvement on the route options taken to non-statutory public consultation by Highways England in January 2017. The evolution of the scheme from that time has been significant in terms of improving the impact of the proposals upon the WHS. It is our belief that further improvements are needed, for example, landscape mitigation, green bridges and byways but we remain optimistic that Highways England can design and deliver a scheme that protects and enhances the WHS. This is a once-in-a generation opportunity to reunite this ancient landscape, giving people the opportunity to tread pathways used by our ancestors who built the monuments, to visit and appreciate the monuments and see and hear wildlife without the intrusion of the traffic and noise from the road.

I do hope that this reassures you. I'd be very happy to meet you to discuss our position more thoroughly should this be of use. Your office can contact mine at chief.executive@historicengland.org.uk to make the necessary arrangements.

Yours sincerely

Duncan Wilson OBE
Chief Executive of Historic England



Historic England

From the Chief Executive

Duncan Wilson

Tom Watson MP
House of Commons
London
SW1A 0AA

10 July 2018

Dear Tom,

I read with interest the comments made by the Shadow Secretary of State for Environment, Food and Rural Affairs, Rachael Maskell MP, about the Stonehenge tunnel scheme during a debate in Westminster Hall on 5 June. She indicated that the Labour Party was not happy with the scheme and wanted to look at other options.

There are two points that I would like to address – firstly, the Labour Party's wider position on the scheme and secondly, the concerns that have been raised by the Stonehenge Alliance over potential damage at the Blick Mead site which Ms Maskell was sympathetic to.

As I know you are aware, Historic England has been working alongside Highways England, English Heritage and the National Trust to make sure that the plans for the tunnel project protect and enhance the Stonehenge World Heritage Site (the WHS). In our view, the tunnel would remove much of the existing barrier to the Stonehenge landscape that is caused by the A303, reuniting a landscape that has been severed for generations and allowing visitors to explore the whole of the site.

The Stonehenge tunnel scheme as a whole

Historic England sees the proposed scheme as great improvement on the route options taken to non-statutory public consultation by Highways England in January 2017. The evolution of the scheme from that time has been significant in terms of improving the impact of the proposals upon the WHS. The route has been revised to bring the proposed alignment close to that of the existing, surface A303, thus resolving the serious adverse impacts the previous route options would have caused within the south-west quadrant of the WHS, including upon the winter solstice sunset alignment as viewed from Stonehenge.

The location of the tunnel portals, with appropriate landscape mitigation by means of covered extensions, utilises the topography of the WHS to minimise the impact on its Outstanding Universal Value (OUV). The positioning of the new surface approach road to the west of the western portal within a deep, steep sided cutting will remove from sight the visual intrusion of traffic passing through the western part of the WHS from a number

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of viewpoints relevant to OUV whilst minimising the footprint of the scheme within it. The removal of the current Longbarrow Roundabout, the creation of a new A303/A360 junction some 600m west of the current western boundary, and the diversion west of the A360 road where it formerly approached Longbarrow Roundabout from the north and south, will have a significant, positive impact upon the setting of the Winterbourne Stoke and Diamond monument groups, especially when combined with the removal of the current roundabout and old A303/A360 roads and their transition to low key restricted byways for walkers, cyclists and horses.

We welcomed commitments from Highways England to avoid intrusive signage and lighting within and adjacent to the WHS and the new junctions, which will bring further benefits to bear in conserving a dark skies environment important for the appreciation of significant astronomical alignments as viewed from those monuments designed for this purpose. However we are keen to learn more on how intrusive lighting will be avoided at the proposed new A303/A360 junction.

The overall effect of these improvements when combined with the removal of over 3km of the current surface A303 and the reunification of the landscape it presently severs, effectively preventing safe access to the WHS to its south, will substantially improve the ability of the public to appreciate the extraordinary archaeology of the whole Stonehenge WHS, rather than only the part to the north of the A303 as is the case at present. There are potentially substantial public benefits arising from the scheme, which if secured could transform the public's understanding of the WHS, allow its improved interpretation and the transmission of its significance in manner fit for Britain's pre-eminent archaeological WHS.

It is our belief that further improvements are needed, for example, landscape mitigation, green bridges and byways but we remain optimistic that Highways England can design and deliver a scheme that protects and enhances the WHS. This is a once-in-a generation opportunity to reunite this ancient landscape, giving people the opportunity to tread pathways used by our ancestors who built the monuments, to visit and appreciate the monuments and see and hear wildlife without the intrusion of the traffic and noise from the road.

Concerns about Blick Mead

During the debate, Alex Burghart MP raised the point that some archaeologists have concerns about potential damage to the archaeology at the Blick Mead site at the eastern end of the proposed tunnel. Their view is that the construction of the portal may affect groundwater conditions which could harm the remains at Blick Mead. They use the example of water damage of the archaeology at a Mesolithic site at Star Carr in North Yorkshire as evidence of the damage that could be caused at Blick Mead.

It is our view that Star Carr is a very different site to Blick Mead. Star Carr has an unusually rich and diverse assemblage of organic archaeological and environmental remains that are dependent upon being waterlogged to maintain their significance, i.e., without being kept wet they will decay and be destroyed. Parts of the site are under threat through reduced groundwater flows, which in turn has lowered the water table.

Archaeological excavation has been undertaken as a last resort to preserve a detailed record of the resource under threat.

Blick Mead has produced an exceptional quantity and quality of Mesolithic worked flint and animal bones, through research excavation of a small percentage of the site. Some of the animal bone is in such a good state of preservation that the site director believes that this is due to waterlogging. The recent publication of some of the excavations at the site does not clearly demonstrate this. Blick Mead has not yet produced the rich and diverse assemblage of the remains found at Star Carr. It has not been demonstrated that the site is dependent upon waterlogged ground to preserve its significance.

Even so, we have advised that Highways England install monitoring equipment and they have agreed to do so. This will also inform future variations in groundwater levels through (for instance) climate change or increased river abstraction for local populations. However, Highways England's own assessment thus far indicates that the A303 improvement will have no impact upon Blick Mead or its water environment. The Blick Mead site lies wholly outside the A303 works area. There will be no direct impact upon the site from the road scheme, which will only involve minor works in the vicinity of the site. The major infrastructure such as the tunnel and its portals and the Countess Junction improvements are well away from the site and will have no impact upon it. We agree with this assessment.

We understand, of course, that the opposition has an obligation to scrutinise government policy but hope that you will agree with us that the fundamental premise of the scheme is sound. I'd be very happy to meet you and Ms Maskell to discuss our position more thoroughly should this be of use. Your office can contact mine at chief.executive@historicengland.org.uk to make the necessary arrangements.

Yours sincerely

Duncan Wilson OBE
Chief Executive of Historic England

Cc: Kevin Brennan MP

Minutes

A303 Stonehenge – Amesbury to Berwick Down

Title:	Scientific Committee		
Date:	03 August 2018	Time:	10:30 – 14:00
Location:	Aldgate Tower, London, E1 1FE		

Attendees:

Scientific Committee

Professor Sir Barry Cunliffe
Professor Nicky Milner
Professor Oliver Craig
Dr Colin Shell
Professor Mike Parker Pearson
Dr David Field
Professor Vince Gaffney

HMAG

Dr Nicola Snashall (National Trust)
Dr Heather Sebire (English Heritage)

HE/AmW

Andrew Clark (Highways England)
Chris Moore (AmW)
Neil Macnab (AmW)

Apologies

Professor Clive Ruggles
Dr Andrew Fitzpatrick
Professor Tim Darvill
Professor Josh Pollard
Mike Pitts

Phil McMahon (Historic England)
Melanie Pomeroy-Kellinger (Wiltshire Council)

Chair: Sir Barry Cunliffe

Agenda Item	Action
Welcome and Apologies	
•	
Minutes and Actions	
• Minutes agreed by all present.	
Matters Arising	
<ul style="list-style-type: none">• ICOMOS Mission Report has been received, DCMS attended the WHC in Bahrain representing the State Party. The WHC Decision accepts the location of the Eastern Portal, has requested that the State Party reviews the design of the Western Portal and approach road to minimise adverse impact to the WHS. Notes the proposed link between BOATs 11 and 12. The decision also accepts that alternative routes outside the WHS have been satisfactorily investigated and closed out.• Supplementary Consultation is running at present. This is covered in the AmW presentation.• Site visit to the western portal. The visit was restricted due to the presence of a pair of breeding Stone Curlew, however the crouched Beaker burial was viewed and its location and significance was discussed.	
Presentation by AmW and Discussion	
<ul style="list-style-type: none">• Progress with Archaeological Evaluation<ul style="list-style-type: none">○ Eastern portal, Presentation covered the findings from the Draft Report, results included Mesolithic flints in a location to the north of the road in the vicinity of Countess Farm West; there was also discussion and presentation on the buried soils within the colluvial sequence as seen on site by some committee members.	

- Western Portal, Overview from initial results, draft report has not been received yet. Discussed the evaluation approach and location of specific features. The exclusion from the evaluation of a c.4m diameter hengiform monument located by multi-channel GPR and the Scheduled Wilsford G1 bowl barrow was noted. All top soil sieving was undertaken as agreed – except that the area of the former pig field has yet to be test-pitted (as agreed on site with the Scientific Committee as the conditions on site at the time were not favourable), all other areas have been completed. Several features have been identified within the area, predominately from the Beaker Period. As well as the crouched burial, Beaker period pottery, including coarse and finewares and a near-complete plain vessel has been found. A discussion was held, and a request was made for the soil sieving in the former pig area to be undertaken once sufficient time has been given to allow for establishment of suitable ground conditions.
- Proposed Scheme Design Update.
 - Presentation of the history of the development of the scheme, highlighting how heritage issues have influenced design decisions at every stage of the process.
 - Blick Mead: monitoring of the water table was requested by the SC as part of the approach to mitigate impacts of the scheme. This is being progressed through the tiered assessment approach outlined in Historic England's guidance. Monitoring will commence once land access has been agreed with the landowner. This will be for a period of at least 12 months.
 - Historic reporting/investigation indicate that the majority of soft organic material, between the River Avon bridge and the vicinity of Vespasian's Camp, was excavated in the 1960s as part of the Amesbury bypass scheme.
- The Supplementary consultation exercise was presented.
 - Covering three changes to the proposed scheme; a move east of the Rollestone Junction put forward at statutory public consultation; removal of the proposed byway link for motorised traffic; and the relocation of Green Bridge No. 4, to be within the WHS and to be up to 150m in width. It also includes further clarification of the scheme and wider area Public Rights of Way. This was in response to criticism that the previous consultation was insufficiently clear on this point.
- HIA Progress.
 - Highways England have always recognised the need for HIA, The HIA Scoping has been undertaken and presented to the mission in 2018, this was recognised by the mission advisors as being appropriate for assessment purposes.
 - The 2015 WHS Management Plan is a key document, identifying the attributes of OUV and the priorities and policies in relation to the roads within the WHS, these set the framework for the HIA.
 - Groupings of assets expressing attributes of OUV have been identified as part of the assessment approach to both HIA and EIA. A discussion was held around the groupings, the importance of the relationships between the long barrows in the western part of the WHS – the HIA needs to take account of impacts on this widespread grouping.
 - HIA should also encompass the recent trends of finds relating to the Early Bronze Age in the western approach road area, this may be related to settlement, and is therefore important in HIA terms.

<ul style="list-style-type: none"> ○ The longevity of the landscape, with activity from the Mesolithic onwards needs to be considered. Attention was drawn to the significance of recent Electro-magnetic Induction (EMI) survey in the WHS – this has identified numbers of previously unknown pit features, excavation of one of these (east of King Barrow Ridge) has indicated a Mesolithic date – this emphasises the long duration of activity in the landscape. It was noted that Paul Garwood had recently presented an overview of this project and its outline findings to members of HMAG and the AmW heritage team. It was noted, however, that the Mesolithic activity is not what gives the WHS Outstanding Universal Value, it is the activity in the Neolithic and Early Bronze Age that provides this. ○ Tools used to assist in the HIA assessment process were presented, including Zone of Theoretical Visibility, Dark Skies mapping, Tranquillity Model, were noted. ○ Engagement with stakeholders and consultations undertaken ensure that the information is distributed and helps gain feedback and inform scheme development. ○ How the current A303 impacts on the WHS. Information contained within the statement of OUV and the 2015 Management Plan highlight this issue and helps the HIA detail the impacts. ○ Scheme Legacy was also covered. ● Emerging HIA Conclusions <ul style="list-style-type: none"> ○ The emerging conclusions were discussed at length and the Scientific Committee raised some points for AmW to take away and consider. 	
<p>AOB</p>	
<ul style="list-style-type: none"> ● None. 	

Next Meeting: Doodle Poll to be set up around the End of October, this meeting will be used to discuss the final conclusions and how earlier recommendations have been incorporated, or not.

From: Tracey Merrett [tracey@merrettandco.com]
Sent: Tuesday, October 02, 2018 7:55 AM
To: naomi@amesburyabbey.com; 'david@amesburyabbey.com'; David Jacques
Subject: Response

Dear All

I set out below the response to my letter form Highways England which is disappointing but predictable.

Dear Ms Merrett

Thank you for your email of 14 September, relating the A303 Stonehenge scheme.

In response to your query asking why we are planning to submit our DCO application for the A303 scheme, whilst the environmental impact of the works is not yet known, I am pleased to advise you that is not the case. A full environmental impact assessment has been undertaken for the scheme which will be reported in an Environmental Statement that will accompany the DCO application we intend to make shortly.

The assessment shows there will be no adverse impact on Blick Mead. The data informing the assessment and the details of the assessment itself will be published as part of the submission accompanying the application; the data and assessment will be available for you to review and understand how the conclusion about the scheme's impact on Black Mead has been reached.

The continued planned monitoring about which you write is in recognition of the public and professional interest in the site. That includes Historic England's interest and their wish to see further monitoring continue to secure a greater level of understanding in the site, which Highways England is pleased to pursue through discussion and agreement with your client.

I hope that clarifies matters and thank you for taking the time to contact us. If you have any further questions or concerns please don't hesitate to get in touch on 0300 123 5000 or email A303Stonehenge@highwaysengland.co.uk.

Kind regards

Heather Price, Correspondence Officer

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

Web: <http://www.highways.gov.uk>

Kind regards
Tracey

Merrett & Co*

Hazel Farm, Upper Littleton

Winford, Bristol BS40 8HG

tel: 01275 331228 / mobile: [REDACTED]

fax: 01275 331248

e-mail: tracey@merrettandco.com

*<http://www.merrettandco.com>

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David Jacques

Actions

To:

Tracey Merrett
[tracey@merrettandco.com]; naomi@amesburyabbey.com; 'david@amesburyabbey.com'; Phil.McMahon@HistoricEngland.org.uk; Tony.Brown@soton.ac.uk

Sent Items

Tuesday, October 02, 2018 10:59 AM

This message was sent with High importance.

Dear Phil and Tony,

I have just received news from the Amesbury Abbey solicitor Tracey Merrit that Highways England has made "A full environmental impact assessment" which shows there "will be no adverse impact on Blick Mead" (see email below). My understanding from the meeting we had on the 16th of April with Highways representatives and other HE personnel was that it was agreed that **monitoring work needed to made at Blick Mead across a twelve month period** in order to ensure that any seasonal fluctuations in the water table were recorded before any assessment could be made. I also understood that Tony would be involved in this process in an advisory capacity.

Please also see the email string between Chris Moore and ourselves Phil immediately below this which underscores the point about the 12 month period.

How can a "full environmental assessment" of Blick Mead have been made when monitoring work only started there in May?

Best wishes, david

Moore, Chris [Chris.Moore@aecom.com]

Actions

To:

David Jacques

Cc:

Siv Elisabeth Hveberg

Fra: Siv Elisabeth Hveberg
Sendt: 29. april 2019 17:06
Til: Siv Elisabeth Hveberg
Emne: VS: Document 1 - Jane sladen's map and gps data, highways tiered assesemnt - TB's critique of that
Vedlegg: BlickMead Hand Auger Boreholes and Staff Gauges.pdf; 6-3_ES-Appendix_11.4_Annex3_Blick Mead Tiered Ass.pdf

From: Sladen, Jane [jane.sladen@aecom.com]
Sent: Friday, November 02, 2018 1:42 PM
To: David Jacques
Cc: david@amesburyabbey.com; Parris, Jack; Phil.McMahon@HistoricEngland.org.uk
Subject: RE: Groundwater Monitoring

Dear David,

Your email below has been passed on. Our hydrogeologists are on site this week to continue the groundwater level monitoring at the Abbey, which includes the Abbey spring, approximately 50m from your water monitoring pit at Blick Mead spring.

You may have noticed wooden stakes whilst you were on site. The attached map shows these locations (which have been surveyed and cleared for utility services) at Blick Mead and in the Abbey grounds. During November these will be installed with piezometers for water level monitoring at different levels as indicated in the table below.

Location ID	Easting	Northing	Proposed Depth (mbGL)	Monitoring Formation
5p	414952	141962	4	Peat
6p	414980	141940	4	Peat
8p	415029	141963	4	Peat
2a	414892	141969	3	Alluvium
3a	414940	142016	3	Alluvium
9a	414895	142020	3	Alluvium
5a	414952	141962	4	Alluvium
6a	414980	141940	4	Alluvium
7a	415002	142013	4	Alluvium
8a	415029	141963	4	Alluvium

On a separate note the tiered assessment has been issued and a copy is attached.

Best regards,
Jane

Jane Sladen
AECOM
Technical Director, Groundwater & Water Resources, Basingstoke RG21 7PP, UK
D: +44-(0)1256-310801
M: [REDACTED]
jane.sladen@aecom.com

From: David Jacques [mailto:[REDACTED]]
Sent: 30 October 2018 15:26
To: David Cornelius-Reid <david@amesburyabbey.com>; Parris, Jack <Jack.Parris@wsp.com>
Cc: Phil.McMahon@HistoricEngland.org.uk
Subject: RE: Groundwater Monitoring

Dear Jack,

The Blick Mead team and a team from Southampton University led by Prof Tony Brown have been at Blick Mead for the last 2 and half weeks getting enviro samples from the site. To our dismay we immediately realised that there have been NO water table measurements taken at Blick Mead - there is **no** water measuring equipment in the area of the archaeology - despite the assurances Tony and myself received in two meetings from Highways and Historic England people in February and April. Without LOCAL monitoring of the site we will not understand the impacts of the flyover and related tunnel infrastructure on the water table which is preserving all the precious organics at the site.

Tony and myself made it clear in those meetings that local monitoring had to happen regularly over a 12 month period at Blick Mead in order to accurately gauge the seasonal variation in the water table at the site. I have an email trail, which includes Phil McMahon and Chris Moore agreeing that that was precisely was agreed, to this effect.

I wrote to Phil McMahon about this situation at the beginning of October. You should know that we have now set up our own water monitoring station in the Blick Mead spring and have arranged for data to be collected from it every week.

Regards, David

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG

Email [REDACTED] **Error! Filename not specified.**

From: David Cornelius-Reid [david@amesburyabbey.com]
Sent: Tuesday, October 30, 2018 2:15 PM
To: Parris, Jack
Cc: David Jacques
Subject: {Spam?} Re: Groundwater Monitoring

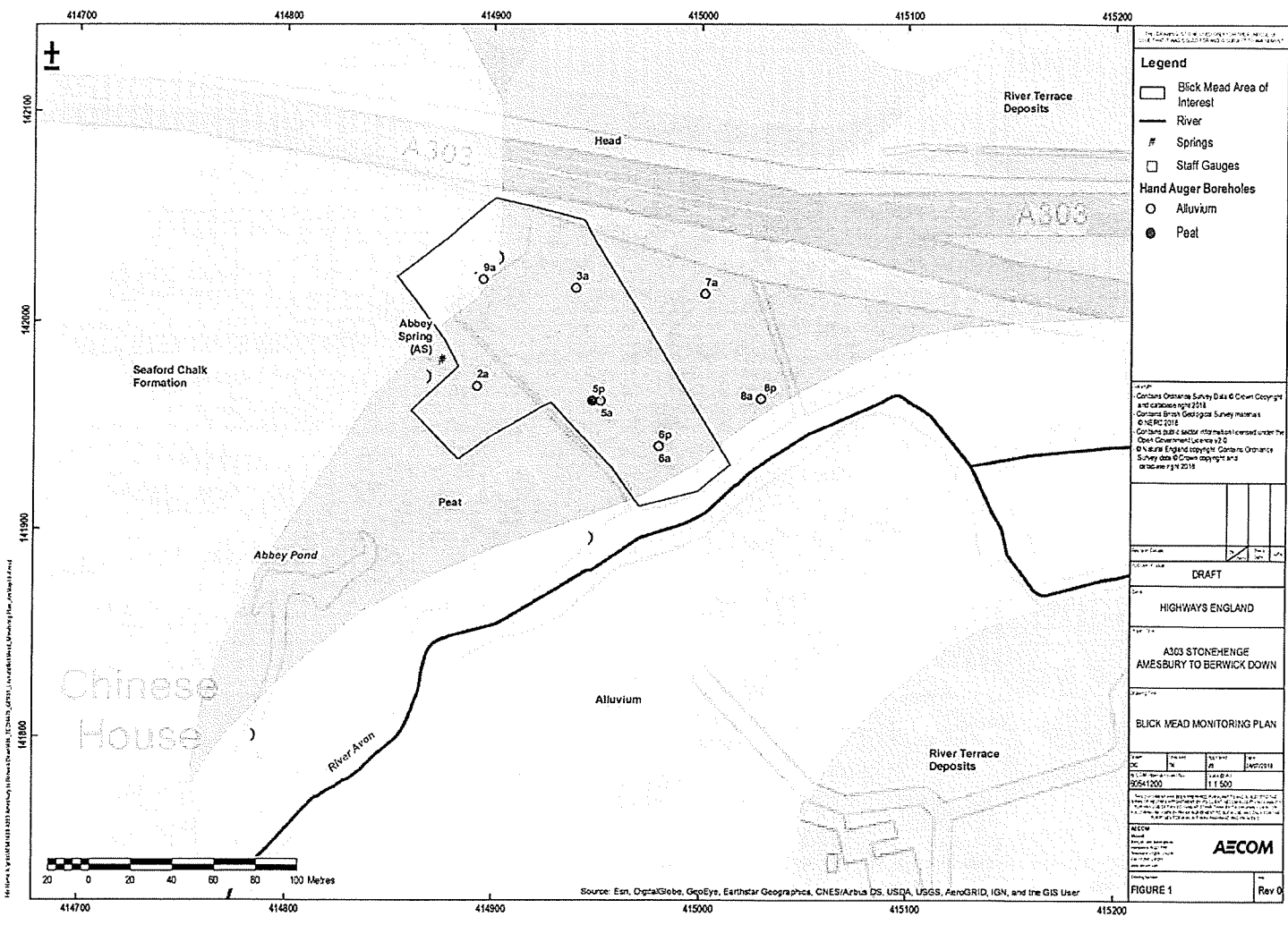
Hi Jack

Yes, that's fine, I may not be around on the day, so just go ahead!

Regards

David

David Cornelius-Reid



The following information is provided for the information of the user of this map. It is not intended to be used as a substitute for professional advice.

Legend

- Black Mead Area of Interest
- River
- # Springs
- Staff Gauges
- Hand Auger Boreholes
 - Alluvium
 - Peat

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Author	Client	Scale	Date
Drawn	Checked	Approved	Issue
DRAFT			
HIGHWAYS ENGLAND			
A303 STONEHENGE AMESBURY TO BERWICK DOWN			
BLICK MEAD MONITORING PLAN			
Scale	North	Sheet	Rev
1:11,500			
AECOM			
FIGURE 1			Rev 0

It is very preliminary and could only count as a Tier 1 Report. More specifically:

p1. (and 2.3.1) The site is a spring pond which was part of a palaeochannel at the apex of the floodplain bend. So its formation is largely fluvial rather than just due to a spring

p2. Given the nature and importance of the site it is obvious that a Tier 1 report is not sufficient

p3 and on incl 2.4.3 - there is an over-emphasis on the peat - which is anyway largely organic rich silt-clay with sand. The artifacts are also found outside this lithology.

p6 water has been observed in the pond..

p12 **Fig 2.10 is not accurate** - it is BGS mapping at 1:2,500 and not designed for this level of detail.

p 17 Fig 2.12 is fine but the hydrology of the site needs to be tied into it.

p19 2.7.1 yes but the sediments can still dewater - slowly - even with a low hydraulic conductivity..

p20 second bullet point - where is the data to support this statement?

p 21 3.2 'monitoring at BM will continue', this is odd as they are not doing any?

This is a Tier 1 Tier 2 report and a Tier 4 is required.. and the monitoring that they say they are doing!

Cheers
Tony

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG

Email:  **Error! Filename not specified.**

From: David Cornelius-Reid [david@amesburyabbey.com]
Sent: Thursday, November 08, 2018 9:34 AM
To: Parris, Jack
Cc: David Jacques
Subject: {Spam?} Re: Groundwater Monitoring

Good morning Jack

Thank you for your email regarding further monitoring at the Blick Mead site.

I think on this occasion, it is vital that David Jaques is totally involved in terms of location of any new monitoring equipment.

I am happy for this to happen, but as long as David is aware and knows the location.

Kind regards

David

David Cornelius-Reid
The Amesbury Abbey Group
www.AmesburyAbbey.com
www.RetirementVillagePortugal.co.uk

T 01980 622 957
[REDACTED]

Amesbury Abbey
Church Street
Amesbury
Wiltshire
SP4 7EX

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From: "Parris, Jack" <Jack.Parris@wsp.com>
Date: Wednesday, 7 November 2018 at 15:43
To: David Cornelius-Reid <david@amesburyabbey.com>
Subject: RE: Groundwater Monitoring

Dear David,

Thank you for your response last week. The groundwater team were wondering if they would be able to visit Amesbury Abbey next week to install some auger dug shallow boreholes?

I understand from them that David Jacques is aware of this work. These will be used to get a better understanding of the hydrogeological setting near the spring

Please let me know if you are happy for the work to take place next week and I will ask them to call you before they arrive.

Kind Regards,

Jack Parris, Lands, A303 Stonehenge, A303 Amesbury to Berwick Down Technical Partner
Highways England | Temple Quay House | 2 The Square, Temple Quay | Bristol | BS1 6HA

WSP | 70 Chancery Lane | London | WC2A 1AF
T: 02030572113 [REDACTED]
wsp.com

From: David Cornelius-Reid [mailto:david@amesburyabbey.com]
Sent: 30 October 2018 14:16
To: Parris, Jack <Jack.Parris@wsp.com>
Cc: [REDACTED]
Subject: Re: Groundwater Monitoring

Hi Jack

Yes, that's fine, I may not be around on the day, so just go ahead!

Regards

Siv Elisabeth Hveberg

Fra: Siv Elisabeth Hveberg
Sendt: 29. april 2019 22:45
Til: Siv Elisabeth Hveberg
Emne: VS: Groundwater monitoring at Blick Mead tB critique of highways tier assessment

From: Brown A. <Tony.Brown@soton.ac.uk>
Sent: 26 November 2018 20:42:43
To: David Jacques; [REDACTED]; Fonville T.
Cc: fallu@bu.edu
Subject: {Spam?} RE: Groundwater monitoring at Blick Mead and the lynchet

Dear David

Several matters;

1. I believe Ben and Thierry did some good work with you after I had left - and hopefully the data will assist in tying the trenches together....

2. He mentioned that you might be opening up a trench through the lynchet sediments in the Spring. If so I would be very interested as a large project I have (ERC funded) is on terraces and lynchets. So if you fdig the hole (and we can assist with that) then we can do Itarx, OSL etc,. all for free as part of the project and you can have too... I have copied in the new PDRA (Dan Fallu) starting on the project on the 1st Dec.

3. Comments on The Highways England Report.

It is very preliminary and could only count as a Tier 1 Report. More specifically:

p1. (and 2.3.1) The site is a spring pond which was part of a palaeochannel at the apex of the floodplain bend. So its formation is largely fluvial rather than just due to a spring

p2. Given the nature and importance of the site it is obvious that a Tier 1 report is not sufficient

p3 and on incl 2.4.3 - there is an over-emphasis on the peat - which is anyway largely organic rich silt-clay with sand. The artifacts are also found outside this lithology.

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p12 Fig 2.10 is not accurate - it is BGS mapping at 1:2,500 and not designed for this level of detail.

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p19 2.7.1 yes but the sediments can still dewater - slowly - even with a low hydraulic conductivity..

p20 second bullet point - wher is the data to support this statement?

p 21 3.2 'monitoring a BM will continue' this is odd as they are not doing any?

This is a Tier 1 Tier 2 report and a Tier 4 is required.. and the monitoring that they say they are doing!

Cheers

Tony

.....
Professor Tony G Brown BSc PhD FGS FSA

Director of Palaeoenvironments University of Southampton (PLUS), Geography & Environment

Highfields Campus, Southampton SO171BJ

02380 595493

Celtic Crannogs (AHRC): <http://gtr.rcuk.ac.uk/projects?ref=AH/M005259/1>

Flood and Flow (Leverhulme):

Jomon Nutritional palaeoecology & archaeology (Leverhulme)

ECOGEN (Norwegian Research Council)

School of Humanities

The University of Buckingham
Buckingham, MK18 1EG

Email: d. [REDACTED] **Error! Filename not specified.**

From: Sladen, Jane [jane.sladen@aeom.com]

Sent: Tuesday, November 27, 2018 11:22 AM

To: David Jacques; David Cornelius-Reid; Parris, Jack; mbush@dacbeachcroft.com

Cc: Phil.McMahon@HistoricEngland.org.uk; Clark, Andrew (Bristol) (Andrew.Clark@highwaysengland.co.uk)

Subject: {Spam?} RE: Groundwater Monitoring at Blick Mead - URGENT!

Dear David,

Many thanks for your comments. We have had a visit from Andrew and Brian this morning and are completing boreholes today in an area that they are happy with.

You will be aware of where we proposed to locate the hydrogeology boreholes from my email on 2 November and the stakes in the ground. We are of course happy to meet with you and perhaps you can give us proposed dates so that we can make arrangements.

Best regards,
Jane

Jane Sladen
AECOM
Technical Director, Groundwater & Water Resources, Basingstoke RG21 7PP, UK
D: +44-(0)1256-310801
M: [REDACTED]
jane.sladen@aeom.com

From: David Jacques [REDACTED]

Sent: 27 November 2018 10:39

To: David Cornelius-Reid; Parris, Jack; mbush@dacbeachcroft.com

Cc: Phil.McMahon@HistoricEngland.org.uk; Sladen, Jane

Subject: Groundwater Monitoring at Blick Mead - URGENT!

Importance: High

Dear Jack and Jane,

I have just learned from David Cornelius-Reid that you have people putting in water measuring equipment in the Blick Mead area. They have told David that the placement of them is on my recommendation. This is untrue.

From what I am being told some of the equipment has been put on the terrace facing the Blick Mead spring where the late Mesolithic occupation area is. This area has dense spreads of Mesolithic archaeology - the only place in the WHS that has it - and we are really concerned that it will be damaged by your team digging holes through it. I am also concerned that some of your other stations are going to be in the wrong places and that there is insufficient coverage in the spring. Please see Professor Tony Brown's comments to me below (p12) about this. The figure he mentions in your report is not detailed enough to use as a guide for placing water table probes. And I have raised this before. TB also lists other inadequacies in the Highways Report in relation to Blick Mead

In the circumstances you need to stand down your team working at Blick Mead immediately. I suggest you invite Tony Brown and myself down, we agree on where the stations should be put, and we go from there.

Regards, david

Dear David

Comments on The Highways England Report.

Siv Elisabeth Hveberg

Fra: Siv Elisabeth Hveberg
Sendt: 29. april 2019 23:34
Til: Siv Elisabeth Hveberg

From: Sladen, Jane <jane.sladen@aecom.com>
Sent: 27 November 2018 01:30
To: David Jacques; David Cornelius-Reid; Parris, Jack; mbush@dacbeachcroft.com; [REDACTED]
Cc: Phil.McMahon@HistoricEngland.org.uk; Clark, Andrew (Bristol) (Andrew.Clark@highwaysengland.co.uk); [REDACTED]; regina.durighello@icomos.org; i.anatole-gabriel@unesco.org; ,
Subject: {Spam?} RE: Serous concerns about Groundwater Monitoring at Blick Mead - URGENT!

Dear David,

The work has stopped. My email was referring to boreholes completed today that are away from the spring, not to those completed yesterday.

Best regards,
Jane

Jane Sladen
AECOM
Technical Director, Groundwater & Water Resources, Basingstoke RG21 7PP, UK
D: +44-(0)1256-310801
M: [REDACTED]
jane.sladen@aecom.com

From: David Jacques [REDACTED]
Sent: 27 November 2018 12:01
To: Sladen, Jane; David Cornelius-Reid; Parris, Jack; mbush@dacbeachcroft.com; [REDACTED]
Tony.Brown@soton.ac.uk; benrpears@googlemail.com
Cc: Phil.McMahon@HistoricEngland.org.uk; Clark, Andrew (Bristol) (Andrew.Clark@highwaysengland.co.uk); [REDACTED]; regina.durighello@icomos.org; i.anatole-gabriel@unesco.org; ,
Subject: Serous concerns about Groundwater Monitoring at Blick Mead - URGENT!
Importance: High

Jane,

Andy Rhind Tutt and Brian Edwards are not archaeologists. Blick Mead is part of the World Heritage Site for goodness sake. The work should stop until either Tony Brown or myself can be there to supervise it.

I have spoken to Andy RT just now and he says that he and Brian did not approve any work in the spring - they should not have been put in a position where that decided things anyway. I have also seen a large blue bore station you have dug through the area that is very close, if not within, the platform area where we found the aurochs footprints last year.

This work needs to stop now.

david

David Jacques
Professorial Research Fellow in Archaeology

M: [REDACTED]
jane.sladen@aecom.com

On 27 Nov 2018, at 19:13, David Jacques [REDACTED] wrote:

Dear Jane,

I note that you haven't answered my questions. Tony Brown's recommendations should have been taken up - they are also the most cost effective option. Dipwells do not need cement.

I will be on site first thing next Thursday morning.

Regards, david

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG
Email: [REDACTED]

From: Sladen, Jane [jane.sladen@aecom.com]
Sent: Tuesday, November 27, 2018 4:44 PM
To: David Jacques; Tony.Brown@soton.ac.uk; Phil.McMahon@HistoricEngland.org.uk;
[REDACTED]; mbush@dacbeachcroft.com; i.anatole-gabriel@unesco.org;
regina.durighello@icomos.org; Parris, Jack; David Cornelius-Reid; ;; Bonneton, Armelle
Cc: [REDACTED]
Subject: {Spam?} RE: Water measuring station in platform area put in by Highways (picture)

Dear David,

Just to clarify, the 150 mm casing is 0.6m long in total so with a stick up of say 0.4 m only 0.2 m penetrates the ground. It is standard practice to cement these in at surface to prevent water from surface finding its way into the piezometer at depth and to make it secure.

The installations are 50mm diameter. We can show you these when we visit on 6 December i.e. remove the lid of the blue cover and see the piezometer inside. Please can you let me know what time you would like to meet.

Your request has been sent to Highways England regarding payment but I can confirm that I can be there, subject to the usual agreement from David Cornelius-Reid to visit.

Best regards,
Jane

Jane Sladen
AECOM
Technical Director, Groundwater & Water Resources, Basingstoke RG21 7PP, UK
D: +44-(0)1256-310801
M: [REDACTED]
jane.sladen@aecom.com

From: David Jacques [REDACTED]
Sent: 27 November 2018 14:44
To: Sladen, Jane; [REDACTED]; Phil.McMahon@HistoricEngland.org.uk;
[REDACTED]; mbush@dacbeachcroft.com; i.anatole-gabriel@unesco.org;
regina.durighello@icomos.org; Parris, Jack; David Cornelius-Reid; ;; Bonneton, Armelle
Cc: [REDACTED]
Subject: Water measuring station in platform area put in by Highways (picture)
Importance: High

Dear Jane,

Both of these measurements are over what was recommended by Professor Tony Brown in our meeting in London on April 16th (and repeated in his email today below). We are still to receive minutes from from the meeting 7 months later, but his comment should be in them. Why wasn't his recommendation about dipwells and 2-5cm diameter points taken up? Why wasn't I informed that the installations would be this size? This should have been agreed beforehand. Had this be done the damage to this part of the site would have been mitigated.

Further, you do not mention that this installation has been *cemented in concrete*. There had been no communication about this either. The Southampton University team has been taking environmental samples from this exceptionally important part of the site - this is where the laid platform surface and aurochs hoofprints were found last year. **This is a disgraceful way to deal with part of the Stonehenge World Heritage Site and contrary to UNESCO conventions.**

Can I take it that Highways will pay for me to be at Blick Mead on Thursday 6th of December. I have had to take another unpaid leave day. I would like my travel and accommodation expenses too.

Regards, david

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG

Email [REDACTED] **Error! Filename not specified.**

From: Sladen, Jane [jane.sladen@aecom.com]
Sent: Tuesday, November 27, 2018 1:43 PM
To: David Jacques; Tony.Brown@soton.ac.uk; Phil.McMahon@HistoricEngland.org.uk;
[REDACTED] mbush@dacbeachcroft.com; i.anatole-gabriel@unesco.org;
regina.durighello@icomos.org; Parris, Jack; David Cornelius-Reid; ,; Bonneton, Armelle
Subject: {Spam?} RE: Water measuring station in platform area put in by Highways (picture)

Dear David,

The top protective casing (shown in blue on the video) has a diameter of 150 mm. The installations below this are 50mm diameter tubing to monitor water levels. Levels will be recorded using a combination of a hand held dip meter as part of the regular monitoring and data loggers.

Best regards,
Jane

Jane Sladen
AECOM
Technical Director, Groundwater & Water Resources, Basingstoke RG21 7PP, UK
D: +44-(0)1256-310801
M: [REDACTED]
jane.sladen@aecom.com

From: David Jacques [REDACTED]
Sent: 27 November 2018 12:59
To: Tony.Brown@soton.ac.uk; Phil.McMahon@HistoricEngland.org.uk; Sladen, Jane;
[REDACTED] mbush@dacbeachcroft.com; i.anatole-gabriel@unesco.org;
regina.durighello@icomos.org; Parris, Jack; David Cornelius-Reid; ,
Subject: Water measuring station in platform area put in by Highways (picture)
Importance: High

Dear Tony,

Re your email below, see the picture attached - this certainly does not look like something with a 2-4cm diameter. Have no idea how or if they have recorded the level.

Jane, can you answer both questions please as a matter of urgency.

David CR, you are quite right, I was not informed that this work would be happening this week. At the meeting Phil M chaired in London with Highways and aecom people in the spring it was agreed that Tony B or myself would be there when this sensitive work was undertaken.

Best wishes, d

Tuesday, November 27, 2018 12:47 PM

Dear David

Oh - I guess this is their response to 'not doing any monitoring' - how large is it (diameter) - it need only be a dipwell at c. 2-4cm diameter... and how will level be recorded by observer or automatically..?

Tony

.....
Professor Tony G Brown BSc PhD FGS FSA
Director of Palaeoenvironments University of Southampton (PLUS), Geography & Environment
Highfields Campus, Southampton SO171BJ
02380 595493

Celtic Crannogs (AHRC): <http://gtr.rcuk.ac.uk/projects?ref=AH/M005259/1>
Flood and Flow (Leverhulme):
Jomon Nutritional palaeoecology & archaeology (Leverhulme)
ECOGEN (Norwegian Research Council)

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG

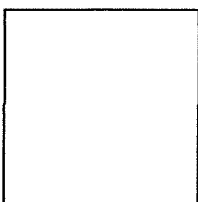
Email: c [REDACTED] **Error! Filename not specified.**

From: david jacques [REDACTED]
Sent: Tuesday, November 27, 2018 12:48 PM
To: David Jacques
Subject: Fw: Bird whole through trench24 extension!

----- Forwarded message -----

From: Andrew Rhind-Tutt [REDACTED]
To: David Jacques [REDACTED]
Sent: Tuesday, 27 November 2018, 11:50:28 GMT
Subject: Bird whole through trench24 extension!

Sent from my iPhone



Siv Elisabeth Hveberg

Fra: Siv Elisabeth Hveberg
Sendt: 29. april 2019 23:24
Til: Siv Elisabeth Hveberg

Viktighet: Høy

From: David Jacques
Sent: 27 November 2018 23:47
To: Sladen, Jane
Cc: Tony.Brown@soton.ac.uk; Phil.McMahon@HistoricEngland.org.uk; [REDACTED]
mbush@dacbeachcroft.com; i.anatole-gabriel@unesco.org; regina.durighello@icomos.org; Parris, Jack; David Cornelius-Reid; ;; Bonneton, Armelle [REDACTED]
Subject: RE: Water measuring station in platform area put in by Highways (picture)

Dear Jane,

What has happened to the spoil that was dug out when you put in your installation in the platform area at Blick Mead? Did anyone look through it? When Professor Brown's team were coring across the spring this October they found bladelets and microliths in their cores. We know the area you dug through is full of prehistoric archaeology.

I ask this question now so that I can at least alert the landowner to protect what has been left - if anything has been left. We cannot afford to wait eight days until I get down there to check.

Regards, david

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG
Email [REDACTED]

From: Sladen, Jane [jane.sladen@aecom.com]
Sent: Wednesday, November 28, 2018 9:15 AM
To: David Jacques
Cc: Tony.Brown@soton.ac.uk; Phil.McMahon@HistoricEngland.org.uk; [REDACTED]
mbush@dacbeachcroft.com; i.anatole-gabriel@unesco.org; regina.durighello@icomos.org; Parris, Jack; David Cornelius-Reid; ;; Bonneton, Armelle; [REDACTED]
Subject: {Spam?} Re: Water measuring station in platform area put in by Highways (picture)

Dear David,

Thank you for confirming when you will be there. We can go through any outstanding questions when we meet.

Best regards,
Jane

Jane Sladen
AECOM
Technical Director, Groundwater & Water Resources, Basingstoke RG21 7PP, UK
D: [+44-\(0\)1256-310801](tel:+44-(0)1256-310801)

Siv Elisabeth Hveberg

Fra: Siv Elisabeth Hveberg
Sendt: 30. april 2019 09:57
Til: Siv Elisabeth Hveberg

From: David Jacques
Sent: Friday, December 14, 2018 11:36 AM
To: jane.sladen@aecom.com; [REDACTED]; Phil.McMahon@HistoricEngland.org.uk;
[REDACTED] Bonneton, Armelle
Subject: Blickmead Geophysical Surveys - Tr 24 c platform surface

Dear Jane,

Please find Eamonn Baldwin's geophysics survey results which revealed the platform surface. It is 10m long and runs sinuously north east south west.

Please note that these were sent to Phil McMahon on the 23rd of February this year and used in the Scientific Committee presentation I made which involved Highways representatives on the 28th of that month. I left a copy of that presentation on Chris Moore's request for the committee. Please read Phil M's remarks summing up the salient points about that meeting in his email below. It is a great pity that the process he outlines wasn't adhered to (this is not you or your team on site's fault Jane).

Best wishes, david

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG
Email: [REDACTED]

From: McMahon, Phil [Phil.McMahon@HistoricEngland.org.uk]
Sent: Wednesday, February 28, 2018 9:29 AM
To: david jacques; David Jacques; e.p.baldwin; Eamonn Baldwin
Cc: [REDACTED] Clark, Andrew (Bristol) (Andrew.Clark@highwaysengland.co.uk)
Subject: RE: RE: Blickmead Geophysical Surveys

Hi David, Eamonn,

A very useful meeting I thought on Friday last – we'll ensure that the groundwater assessment is thorough, robust and transparent. Tony's expertise and offer to assist with on-site water table/flow assessment was very positive and I'm asking Highways' archaeology consultants to engage constructively with you & Tony so that the fullest possible picture of Blick Mead's groundwater sensitivity can be acquired.

I'm hoping to order a copy of the monograph today or tonight and am very much looking forward to reading it. One thing did occur to me – the Scientific Committee would all benefit from being able to access the monograph to increase their understanding. Is there any way that the Committee could obtain a pdf. Version that could be held on the 'members-only' section of the Scientific Committee website, that they could view on the basis that it is not reproduced or disseminated more widely? (my concern being that facilitating this didn't prejudice of sales of your monograph).

Eamonn – many thanks for the images. Fascinating and now critical that we understand the date, nature, character and extent of this feature to identify whether it is of anthropogenic origin.

Copied to Barry & Andrew for info.

Best wishes

Phil

Phil McMahon

Inspector of Ancient Monuments

Planning Group

Historic England

29 Queen Square Bristol BS1 4ND

Direct Dial. 0117 975 0699 Mobile [REDACTED]

----- Forwarded message -----

From: Eamonn Baldwin [REDACTED]

To: McMahon, Phil <Phil.McMahon@historicengland.org.uk>; david jacques [REDACTED] David Jacques [REDACTED]

Sent: Friday, 23 February 2018, 10:23:40 GMT

Subject: RE: Blickmead Geophysical Surveys

Dear Phil,

Please find attached, as requested, four images illustrating the preliminary results of a resistance survey I carried out for David last year at Blickmead.

Hope you find them useful. I'm happy for you to show them to your remote sensing colleagues at Historic England but would appreciate if they are not distributed as they are still unpublished.

(survey details: twin Probe resistance survey, 75cm probe spacing, 50cm x 50cm sampling)

Many thanks - hope they are useful.

Best wishes,
Eamonn

----- Forwarded message -----

From: "Eamonn Baldwin" [REDACTED]

Date: 23 Feb 2018 10:06 am

Subject: FW: Blickmead Geophysical Surveys

To: [REDACTED]

Cc:

Phil.McMahon@HistoricEngland.org.uk

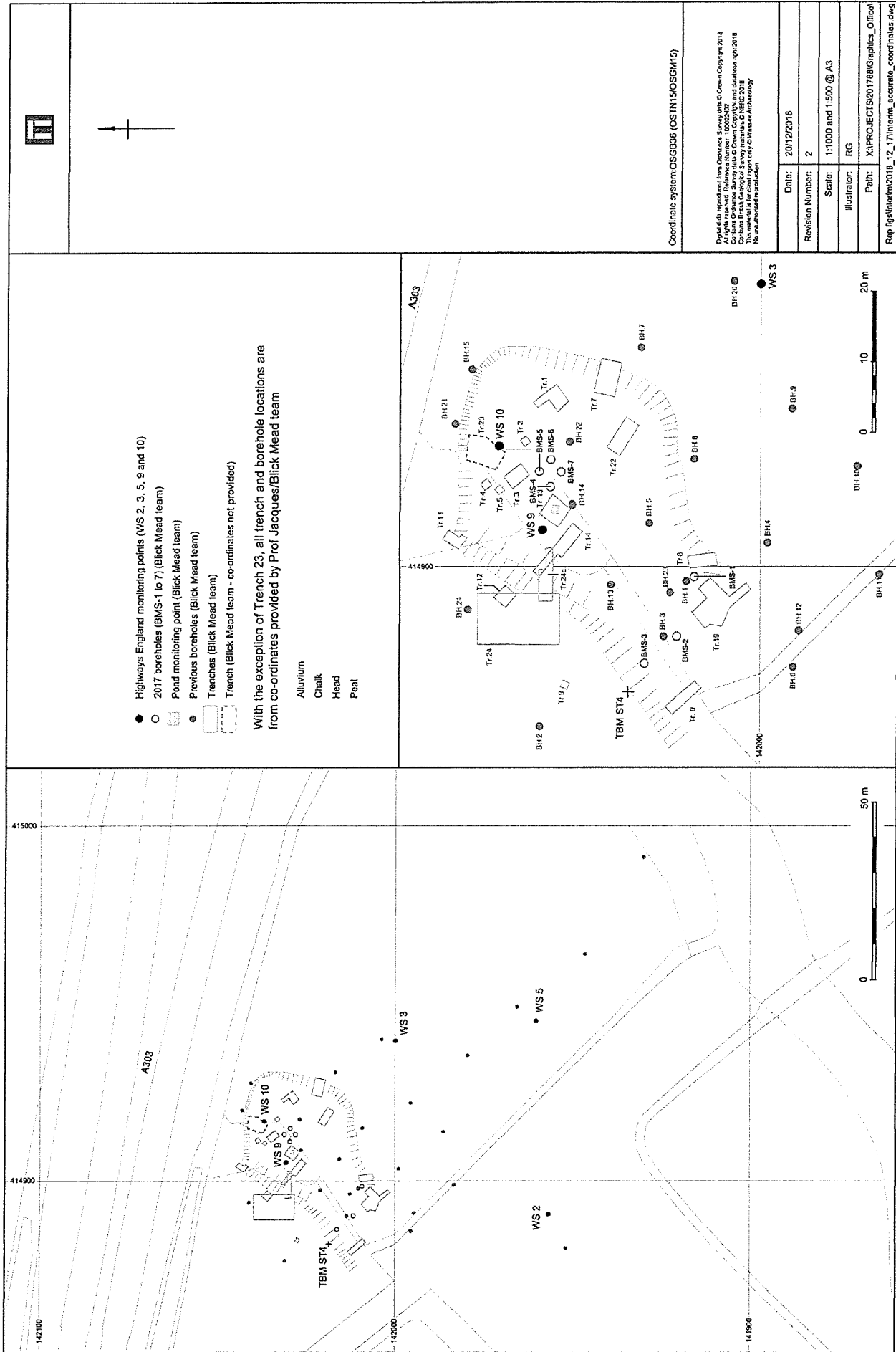


Figure 1: Highways England Monitoring points: location plan in relation to previous investigations at Blick Mead.

Minutes

A303 Stonehenge – Amesbury to Berwick Down

Title:	Scientific Committee		
Date:	18 December 2018	Time:	11:00 – 14:00
Location:	Mace, 155 Moorgate, London, EC2M 6XB		

Attendees:

Scientific Committee

Professor Sir Barry Cunliffe
Professor Clive Ruggles
Dr Andrew Fitzpatrick
Dr Colin Shell
Professor Mike Parker Pearson
Dr David Field
Mike Pitts

HMAG

Dr Nicola Snashall (National Trust)
Dr Heather Sebire (English Heritage)
Melanie Pomeroy-Kellinger (Wiltshire Council)

HE/AmW

Andrew Clark (Highways England)
Chris Moore (AmW)
Jeremy Damrel (AmW)

Wessex Archaeology

Dr Matt Leivers

Apologies

Professor Nicky Milner
Professor Oliver Craig
Dr Mike Allen
Professor Tim Darvill
Professor Josh Pollard
Professor Vince Gaffney

Phil McMahon (Historic England)
Neil Macnab (AmW)

Chair: Sir Barry Cunliffe

Agenda Item	Action
Welcome and Apologies	
<ul style="list-style-type: none">Noted Apologies received from Members.	
Minutes and Actions	
<ul style="list-style-type: none">Minutes agreed by all present.	
Matters Arising	
<ul style="list-style-type: none">Blick Mead Press Interest. <p>Following press reports about drilling at Blick Mead Sir Barry Cunliffe emailed David Jacques to find out what had gone wrong. David Jacques provided a selection of emails to Barry in confidence, Barry provided a summary of the essential points:</p> <ul style="list-style-type: none">16th April 2018, Meeting Held between Highways England, David Jacques, Tony Brown, and Historic England, at which it was agreed that Highways England would undertake monitoring upon completion of an Historic England Tiered assessment.25th May 2018, emails between David Jacques and Chris Moore – Confirming that monitoring would be for a period of at least 12 months.14th September 2018, Email from Tracey Merritt (landowners Solicitor) to Highways England, response from Highways England Correspondence Officer sent on October 2nd.2nd October 2018, David Jacques emailed Phil McMahon and Tony Brown asking why monitoring had not begun, no reply was received.2nd November 2018, Jane Sladen (Highways England) emailed David Jacques saying monitoring equipment would be installed on site in November and provided locations of monitoring points.	

<ul style="list-style-type: none"> o 7th November 2018, Jack Parris (Highways England) told David Jacques that monitoring would be installed the following week – (which did not happen due to access). o 8th November 2018, Landowner emailed Jack Parris, requesting that David Jacques be totally involved in terms of location of monitoring equipment. o 26th November 2018, Highways England (Aecom) start works on site for two days, installing 5 monitoring points. Landowner and David Jacques requests works to stop, work is halted on site. David Jacques meeting. agreed with Highways England. <p>Barry noted that it was unfortunate that this occurred, why was David Jacques not invited to site to agree the siting of boreholes at the time of installation?</p> <p>Andrew Clark confirmed that it was an unfortunate series of events leading to this occurring. The issue boils down to a miss-communication between informing David Jacques of the borehole locations and not inviting him to observe the works. Andrew confirmed that he would be meeting David Jacques on site on the 21st December to agree a way forward for further monitoring points.</p> <p>Highways England was operating with the best intentions to make progress having received earlier criticism of not advancing the works. It should also be noted that Highways England placed wooden stakes on site on the 22nd August 2018, to mark potential boreholes, and it would have been very obvious to the Blick Mead team throughout their dig during October 2018.</p> <p>Chris Moore further presented slides detailing the known location for the Blick Mead trenches and the borehole locations as installed, these show that the boreholes have not been installed in any excavated trench. (Slides attached)</p> <p>In addition, it was explained that the method of installation of the boreholes involved an initial hand dug section, down to a depth of up to 1.2m during which the Mesolithic Horizon was not encountered. The extracted cores from the monitoring tube installation did not reveal any evidence of the Mesolithic layer.</p>	
<p>Presentation by AmW and Wessex on the Evaluation and following Discussion – Attached slide pack</p>	
<p>Chris Moore presented the DCO process and explained the importance of Relevant Representations. He encouraged the committee members to make relevant representations so that the Examination can focus in on key issues that the committee may have.</p> <p>Questions were raised with regards to timing of the process, timings of the works, and how works (including temporary works) would be managed on site.</p> <p>Response was given relating to the approach to documentation and how these are worked up prior to and during examination, but then how they are bound to the DCO and as such they must be delivered upon.</p> <p>Matt Leivers of Wessex Archaeology then provided a thorough update on the completed evaluation across the site, highlighting results of finds, including burials, cremations, pottery and numerous flints both worked and burnt.</p> <p>There was discussion about the relevance of some of the finds and their relationship to Blick Mead and associated sites.</p> <p>Barry asked whether the committee members, in retrospect, considered the methodology to be appropriate and to have achieved the desired outcome? Conclusion was that it was a valuable approach (specifically the test pitting for ploughzone finds)</p>	

Minutes

A303 Stonehenge – Amesbury to Berwick Down

<p>Points made with regards to the potential to correlate lithics to identified features, useful form of evidence even when unrelated to features. Statement made on the usefulness of the square trenches within the approach to help identify discrete features. Also noting the success of the Geophysics stage at strongly identifying the features in the ground.</p> <p>Question was raised on the finds of ancient crops, some were identified and sampled but were shown to be intrusive and not evidential.</p>	
AOB	
<ul style="list-style-type: none">• Tony Brown sent Barry a note on the hydrological importance for Blick Mead appended to these minutes for information.	

Next Meeting: Doodle Poll to be set up during January to look at dates at the end of February and early April. Meeting will focus on the Detailed Archaeological Mitigation Strategy (DAMS).

[REDACTED]

From: [REDACTED]
Sent: 21 December 2018 13:52
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Blick Mead media line

All,

An update from today's meeting at Blick Mead. [REDACTED] and I met David Jacques on site. He had brought along a lawyer from Holland who had flown in especially for today's meeting (although not certain why).

David mentioned the note that I had sent yesterday (with the map on it showing his trenches and our monitoring sites) but didn't go as far as to say that it showed we hadn't put it in the aurochs foot prints.

We discussed the way forward, being that he will be emailing us a proposal for 15 further piezometer points to be installed, and we agreed that it was best if he sent that to myself and [REDACTED] HE will then consider it and respond, and we would hold a meeting to discuss any further approach.

I apologised on my own behalf for the failure in communications between the parties, but that was basically it.

Otherwise we walked around the site, looked at the wells we had installed and looked at the ponds and spring locations.

I believe it was a positive meeting with an agreed way forward.

[REDACTED] can you add anything else if you feel it will add value?

Hope you all have a great Christmas and some well-deserved time off.

Regards,

[REDACTED]

From: [REDACTED]
Sent: 20 December 2018 15:25
To: [REDACTED]
Cc: [REDACTED]
Subject: Blick Mead media line

Hi all,

Siv Elisabeth Hveberg

Fra: Clark, Andrew (Bristol) <Andrew.Clark@highwaysengland.co.uk>
Sendt: 8. januar 2019 17:25
Til: David Jacques; jane.sladen@aecom.com
Kopi: Siv Elisabeth Hveberg
Emne: RE: Meeting at Blick Mead 21/12/18

David,

Thank you for this useful summary of our meeting. Whilst I agree with points 1-4 that you have made, I did not agree to point 5 as presented.

I have no authority within Highways England to agree a blanket coverage of costs. Whilst I recognise that costs have been incurred by yourself, I agreed that HE would consider your costs in any proposals being put forward, and that these could include historic costs, but at no point did I agree to funding any costs without understanding what these would be. This is part of our duty as a public body to ensure that tax payers' money is being appropriately spent. I trust that you understand this.

I look forward to receiving your proposal and working together for the benefit of Blick Mead.

Regards,

Andrew

From: David Jacques [REDACTED]
Sent: 08 January 2019 15:14
To: Clark, Andrew (Bristol) <Andrew.Clark@highwaysengland.co.uk>; jane.sladen@aecom.com
Cc: seh@hveberg.no
Subject: Meeting at Blick Mead 21/12/18

Dear Andrew, Jane and Elisabeth,

It was good to meet at Blick Mead on the 21st of December to discuss future co-operation about the placement and recording of your water meters at the site. Here is a summary of what we agreed during our meeting -

1. All parties agreed to seek co-operation from the 21st of December 2018.
2. Either Professor Tony Brown of Southampton University or myself will be present on site when the water meters (piezometeters) are installed.
3. There will be monthly visits by Aecom and or Highways staff to read the data loggers, and that data should be swiftly shared with Professor Brown and myself.
4. The full minutes from the Highways/Aecom meeting which Professor Brown and I attended on the 16th of April 2018 must be forthcoming as soon as possible.
5. Additional costs have been and may be incurred on the Blick Mead Project as a result of the installation of water meters without consent of the project and the media coverage following this. Highways agreed to cover the additional cost and any loss incurred by the project.

As agreed we will respond with further details of how we see the co-operation between the parties. I am grateful that both parties have already agreed that the Blick Mead project will have the final say in how the details of the co-operation should be.

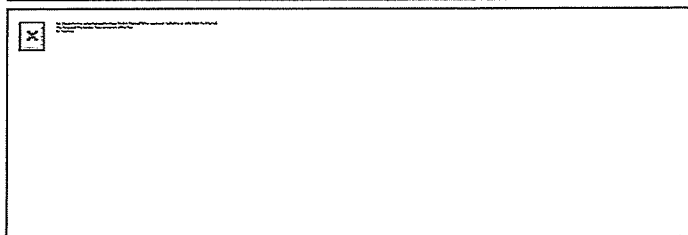
I think it is important that both parties have a duty of care for each the other and that the other party is given all the relevant information at the appropriate time and without undue delay. Since there should be no installation of water meters without either Professor Tony Brown or myself being present and deciding on the position of the installation, see no 2 above, it is in the interest of both parties that I am given sufficient notice of any proposed works going forward.

After some discussion I have come to the conclusion that it would be easiest on both parties if I am the sole point of contact for the project instead of both Professor Tony Brown and myself, as I mentioned on 21st of December 2018. Notwithstanding installation of the water meters, all agreements should be made by me. I will make sure that the appropriate people on my team, as well as the relevant landowners, are kept fully informed.

Yours, David

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG

Email:



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Siv Elisabeth Hveberg

Fra: Siv Elisabeth Hveberg
Sendt: 29. april 2019 22:33
Til: Siv Elisabeth Hveberg
Emne: VS: Blick Mead water meters

From: Clark, Andrew (Bristol) [Andrew.Clark@highwaysengland.co.uk]
Sent: Friday, January 18, 2019 1:30 PM
To: David Jacques; jane.sladen@aecom.com
Subject: RE: Blick Mead water meters

David,

Thank you for the update, I look forward to receiving it.

Regards,

Andrew

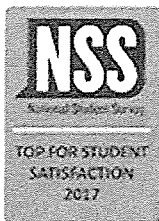
From: David Jacques [REDACTED]
Sent: 18 January 2019 13:29
To: jane.sladen@aecom.com; Clark, Andrew (Bristol) <Andrew.Clark@highwaysengland.co.uk>
Subject: Blick Mead water meters

Dear Andrew and Jane,

I'm afraid I have had a very heavy work load so far this year, but should hopefully have a methodology for the placement of water meters at Blick Mead, as discussed, with you early next week.

Kind regards, David

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG
Email [REDACTED]



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Siv Elisabeth Hveberg

Fra: Siv Elisabeth Hveberg
Sendt: 30. april 2019 09:42
Til: Siv Elisabeth Hveberg
Emne: VS: Blick Mead hydrological work
Vedlegg: Blick Mead Hydrological Monitoring and Modelling Highways 2019.pptx

From: David Jacques
Sent: Friday, January 25, 2019 11:33 AM
To: Clark, Andrew (Bristol) (Andrew.Clark@highwaysengland.co.uk); jane.sladen@aecom.com
Subject: Blick Mead hydrological work

Dear Andrew and Jane,

As discussed, please find below and attached the detail of the works, and the arrangements needed from them to be carried out, at Blick Mead.

The scope is the co-operation between The Blick Mead Project ("Project") and Highways England (HE) (together the "Parties") for the placement of Piezometers ("water meters") and the sharing of the data retrieved from these to measure the fluctuations of the water table.

Presently, HE has placed five water meters within the environs of Amesbury Abbey, two of which have been placed at Blick Mead archaeological site ("Site") without the co-operation of the Project. An additional 10-13 water meters shall be placed on the Site by HE and data retrieved and shared ("the Work") as outlined in this document.

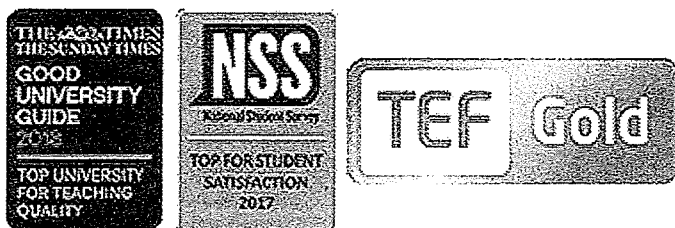
1. The location of the additional water meters shall be decided by the Project, and either professor Tony Brown or professor David Jacques shall be present and explicitly agree in writing to the placement of each water meter prior to any work on the land. HE shall measure the correct coordinates of the water meters and share these with the Project without undue delay. See Appendix A for Lidar image of the Site and Appendix B Grid plan for piezometers.
2. The additional water meters shall be of the same type, technology, size, function and capacity as the ones already placed on the Site.
3. The work shall be performed with all due care to the Site, the adjacent land, and with due consideration for the privacy of the people living or working near the Site.
4. The Parties shall agree on a schedule when the water meters shall be placed on the Site. Any changes to the schedule must be agreed between the Parties.
5. The placement of the water meters shall be completed within the period of 17 April and 24 April 2019.
6. HE must follow all instructions from the land owners or their representatives and the Project when on the Site.
7. HE shall retrieve data from the water meters monthly as per the agreed schedule and shall forward these data without undue delay to professor David Jacques. The data shall not be used for any other purpose by HE than data collecting for the Stonehenge Tunnel Scheme.

8. Unless agreed with the land owners or the Project HE is not allowed on Site except solely for explicit work set out in this document. HE is not allowed any other Work which is intrusive to the land than what is explicitly stated in this document.
9. HE is not permitted to use photos taken on the Site or data gathered as a part of the Work for any other purpose than for which it is intended, see item 7.
10. HE shall reimburse professor Tony Brown, University of Southampton, professor David Jacques, University of Buckingham, and the University of Buckingham for any costs incurred as of 1 January 2018 as a result of:
 - a. Presence in meetings with HE representatives.
 - b. Preparation for meetings.
 - c. The work related to this document.
 - d. Travel to and from meetings with HE representatives.
 - e. Subsistence in relation to a and d above.
11. Professor Tony Brown and professor David Jacques shall receive £300 for each day of work in relation to item 10 above as cost coverage, travel expenses excluded.
12. The content of this document shall be confidential between the parties except for [?].
13. The Parties shall agree to what is stated to media about the cooperation/work.
14. HE is solely liable for any loss or damage as a result of or in connection with the Work.
15. Each Party shall appoint a contact person through which all communication shall flow.

Kind regards, David

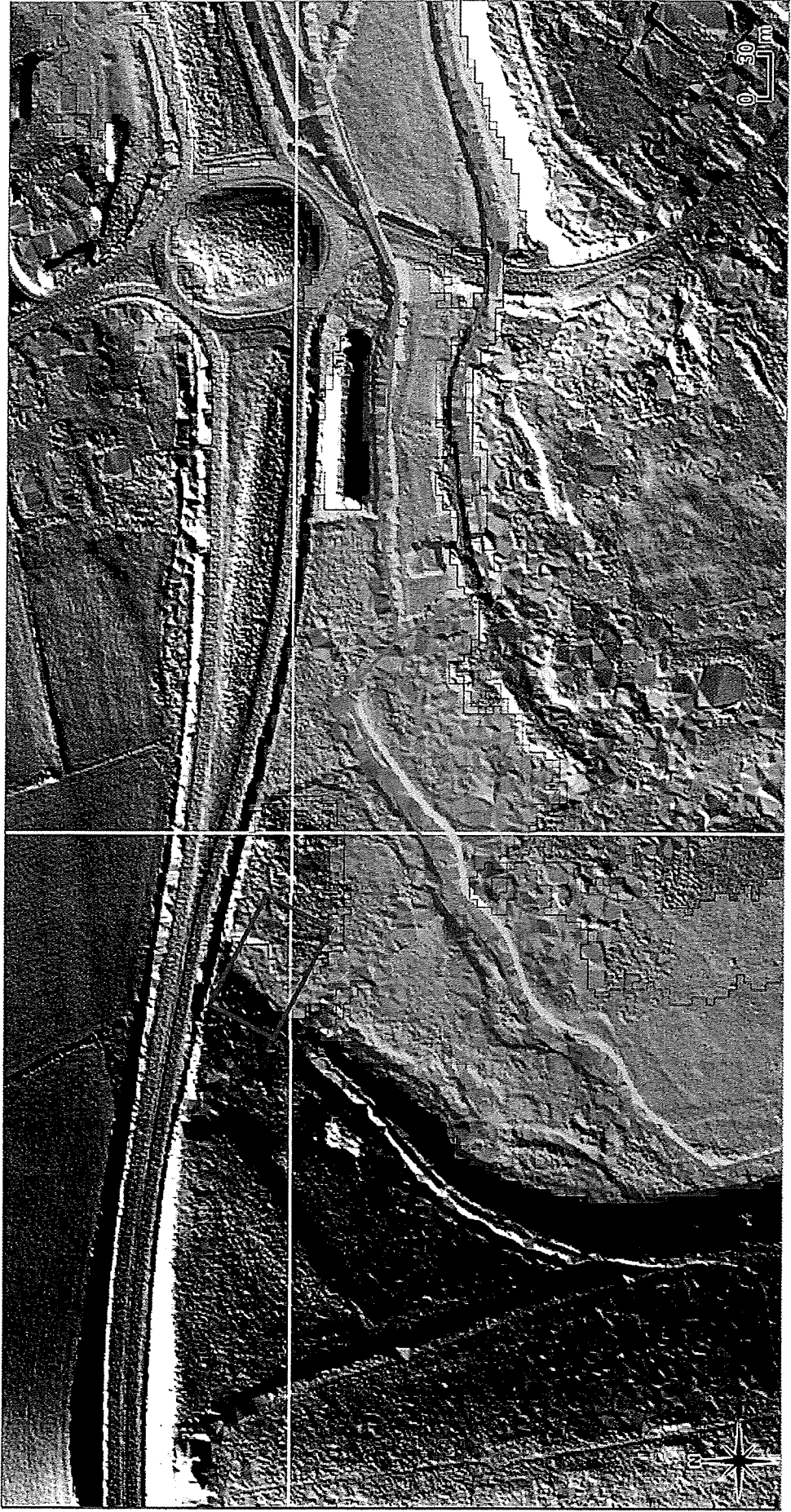
David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG
Email: [REDACTED]

From: david.jacques [REDACTED]
Sent: Friday, January 25, 2019 11:22 AM
To: David Jacques
Subject: Highways



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Appendix A: Lidar Image
Blick Mead Site in Red Square, and environs.



Appendix B

Grid Plan for Piezometers

:-

Piezometer layout, 18 at average site spacing of 15m

- Standard piezometers
- Standard piezometers – to be located by archaeologist
- Reference piezometers to river



Siv Elisabeth Hveberg

Fra: Siv Elisabeth Hveberg
Sendt: 30. april 2019 09:47
Til: Siv Elisabeth Hveberg
Emne: VS: Blick Mead hydrological work - response in from Highways

From: Sladen, Jane [jane.sladen@aecom.com]
Sent: Wednesday, January 30, 2019 12:09 PM
To: David Jacques; Clark, Andrew (Bristol) (Andrew.Clark@highwaysengland.co.uk)
Subject: RE: Blick Mead hydrological work

David,

Thank you for sending this through and apologies for the delay in replying. A few technical questions:

- 1.) Regarding the design of the piezometers, item 2 states that "The additional water meters shall be of the same type, technology, size, function and capacity as the ones already placed on the Site." Does this mean that you are suggesting window sample holes with 50mm piezometer pipe with gravel pack and completed with casing at surface (similar to those already) ?
- 2.) What depth are each of the holes to be and what would be the length and depth of the water level response zone i.e. the depth of plain casing and the depth of slotted screen ?
- 3.) Item 5 states that; "The placement of the water meters shall be completed within the period of 17 April and 24 April 2019." This gives a good period of notice but is quite short for 18 holes. Is there some significance around these dates and are they flexible ?
- 4.) Has the scope been agreed with David Cornelius-Reid or is his permission still needed for these installations ?
- 5.) Have the proposed locations been visited ? If not, there may be physical restrictions such as trees. We assume the final locations would be agreed on site as stated in Item 1.

Best regards,
Jane

Jane Sladen
AECOM
Technical Director, Groundwater & Water Resources, Basingstoke RG21 7PP, UK
D: +44-(0)1256-310801
[REDACTED]
jane.sladen@aecom.com

From: David Jacques [REDACTED]
Sent: 25 January 2019 11:33
To: Clark, Andrew (Bristol) (Andrew.Clark@highwaysengland.co.uk); Sladen, Jane
Subject: Blick Mead hydrological work

Dear Andrew and Jane,

As discussed, please find below and attached the detail of the works, and the arrangements needed from them to be carried out, at Blick Mead.

Bush, Mark

Subject: FW: Blick Mead - Trench 24c coordinates - correction

Importance: High

Sent: Tuesday, February 05, 2019 12:16 PM

To: Clark, Andrew (Bristol) (Andrew.Clark@highwaysengland.co.uk); jane.sladen@aecom.com

Cc: Phil.McMahon@HistoricEngland.org.uk; barry.cunliffe@arch.ox.ac.uk

Subject: Blick Mead - Trench 24c coordinates - correction

Dear all,

I have recently had the time to respond to Andrew's email to me of the 20th of December which provided a site diagram and coordinates for Blick Mead's trenches, including ones for the water meters which were put in at the site on 6th of December.

I have had a thorough look at the data and would like to make a clarification. I inadvertently did not send the updated information about the easterly extension to trench 24c in my email to Jane and others on the 14th of December. The key coordinates from the north east corner of that trench (where the aurochs prints were) are -

northern

northings - 414902.622
eastings - 142030.221

southern

northings - 414902.670
eastings - 142029.240

I have been made aware on social media that the accuracy of our account has been doubted by Historic England. We stand firm on the previous statement that the area where the hoof prints were found has been damaged.

The fact I was put under so much pressure as a result of the water meters being installed without my knowledge, and since, clearly shows the importance of cooperation and good faith going forward.

Best wishes, david

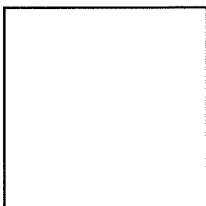
David Jacques

Professorial Research Fellow in Archaeology

School of Humanities

The University of Buckingham
Buckingham, MK18 1EG

Email: d.jacques@buckingham.ac.uk **Error! Filename not specified.**



Siv Elisabeth Hveberg

Fra: Siv Elisabeth Hveberg
Sendt: 30. april 2019 10:03
Til: Siv Elisabeth Hveberg
Emne: VS: document 9 AC tracked changes on Minutes for meeting 16th April 2018 - london
Vedlegg: Minutes Blick Mead - DRAFT 01022019_AC comment.docx

From: Clark, Andrew (Bristol) [Andrew.Clark@highwaysengland.co.uk]
Sent: Friday, February 22, 2019 8:51 AM
To: David Jacques [REDACTED]; McMahon, Phil; Williams, Jim; Moore, Chris; Macnab, Neil; Mcquade, Steve; Sladen, Jane; Kelly, Travis
Subject: RE: Minutes from meeting with Highways on 16th April 2018 - DRAFT

All sorry, I didn't attach my commented version. Here it is.

Andrew

From: Clark, Andrew (Bristol)
Sent: 22 February 2019 08:50
To: David Jacques <david.jacques@buckingham.ac.uk>; Tony.Brown@soton.ac.uk; McMahon, Phil <Phil.McMahon@HistoricEngland.org.uk>; Williams, Jim <Jim.Williams@HistoricEngland.org.uk>; Moore, Chris <Chris.Moore@aecom.com>; Macnab, Neil <neil.macnab@aecom.com>; Mcquade, Steve <steve.mcquade@aecom.com>; Sladen, Jane <jane.sladen@aecom.com>; Kelly, Travis <travis.kelly@aecom.com>
Subject: FW: Minutes from meeting with Highways on 16th April 2018 - DRAFT

All,

Please see attached David's tracked changes to the minutes.

I have written additional comments on where Highways England sits with acceptance of the changes. All sides need to agree on a coherent set of minutes so I do see this as an iterative process.

Where no comments have been made I accept the additional/changed text.

Regards,

Andrew

Andrew Clark

**Deputy Project Manager
Major Projects Complex Infrastructure Programme**

Highways England | Temple Quay House | 2 The Square | Temple Quay | Bristol | BS1 6HA
Tel: +44 (0) 300 470 4137 | Mobile [REDACTED]
Web: <https://www.gov.uk/government/organisations/highways-england>

Minutes A303 Stonehenge – Amesbury to Berwick Down

• Title:	Meeting to discuss Blick Mead		
Date:	16 April 2018	Time:	14:00-16:00
		Location:	AECOM offices, Aldgate Tower, London
Attendees:	David Jacques (University of Buckingham) Tony Brown (University of Southampton) Phil McMahon (Historic England) Jim Williams (Historic England) Andrew Clark (Highways England) Steve McQuade (AmW) Jane Sladen (AmW) Chris Moore (AmW) Travis Kelly (AmW)		
Apologies:	Neil Macnab (AmW)		
Chair:	Phil McMahon (Historic England)		

DISCUSSION POINTS		
No.	Item	Action <i>(By whom, by when)</i>
1.	Welcome and Introductions	
	<ul style="list-style-type: none"> David Jacques of the University of Buckingham has led annual excavations at Blick Mead since 2005, Tony Brown is advising the Blick Mead team on hydrogeology and his team from the University of Southampton lead on the environmental investigations at the site. Jim Williams is the Historic England Senior Scientific Advisor. Steve McQuade is environment workstream lead for AmW, Jane Sladen and Travis Kelly are conducting the groundwater assessment for the A303 scheme. 	
2.	Purpose of meeting:	
	<ul style="list-style-type: none"> The meeting was requested by Historic England to facilitate dialogue between the A303 project team and the Blick Mead team with regard to the potential impact of the A303 Scheme on the water environment at Blick Mead. 	
3.	Blick Mead project water environment work	
	<ul style="list-style-type: none"> The Blick Mead project has sunk some boreholes around the site in order to analyse environmental remains and geomorphological evidence from Mesolithic contexts within the spring area. The borehole attributes from the work undertaken previously by Reading University can be found in the Blick Mead monograph 'Blick Mead: Exploring the First Place in the Stonehenge Landscape' (Peter Lang 	

Minutes

A303 Stonehenge – Amesbury to Berwick Down

	<p>2018). A full discussion of the work can be found in Chapter Two of the book. A grid plan for Southampton University's coring will be forthcoming.</p> <ul style="list-style-type: none"> • Highways argued that Blick Mead is connected to the floodplain water table, largely fed from the chalk aquifer, hence levels vary accordingly – low amplitude fluctuations. • Highways argued that springs upwell into the river channel slightly downstream. The Blick Mead site environs include a gravel island and an old alluvial channel. There is some retention of water from surface flow – ponding on clays. The water table probably sits naturally just above clay. • Tony Brown emphasised that Highways models for the source of the water and water table fluctuations at Blick Mead are too general. Localised monitoring at the Blick Mead site itself, focusing on areas where organic remains from the Mesolithic period (c.7500-4000 Cal BC) are known to exist, is required. Tony Brown compared the situation to the wetland Mesolithic site at Star Carr. Star Carr's organic remains were severely denuded by an infrastructure project at the beginning of the 21st century which did not factor in the local conditions for the water table dynamic at that site. • Tony Brown and David Jacques outlined why the hydrology at Blick Mead matters. The excavations at Blick Mead on the terrace adjacent to a palaeochannel and spring site, have produced exotic artifacts, very high numbers of lithics and macrofaunal animal tracks alongside bones of wild animals and fish, and appears to be an aurochs butchery site. Additionally, both the sedimentology and the micromorphology from the stone-spread on the terrace suggest that it was human-laid rather than natural. Overall various aspects of the site including the aurochs hoof-prints, also hint at a much more 'advanced' level of resource manipulation than is normally associated with Mesolithic sites, which makes the site of huge importance in hunter-gatherer archaeology worldwide. A series of boreholes by Southampton University, put across the site at two spatial scales, have revealed intra-site stratigraphy and allow correlation of the site land-surface with the palaeochannel. Initial palaeoenvironmental investigations (from pollen and insects) suggest that the site existed in a large gap in the species rich broad-leafed forest. Fungal spores also indicate the presence of large herbivores. An initial trial of sedaDNA metabarcoding (using p6 loop for plants and P007 for mammals) produced taxonomically poor results, but did demonstrate that there was ancient sedaDNA preservation. In the lower part of the site (spring and palaeochannel) the silty-clayey sediments have preserved Mesolithic pollen and spores, insects, animal and sedaDNA. Further sedaDNA work, probably involving shotgun sequencing, will require searching within the waterlogged sediments for the ideal location which maximises sedaDNA yield and minimises any leaching effects. The problem is that these Mesolithic levels are only just below the normal winter-water table level (by less than
--	--

Kommentar [CA(1)]: These comments were not made by Highways England. They were made by TB?

Minutes A303 Stonehenge – Amesbury to Berwick Down

	<p>20cm) and so are extremely vulnerable to any lowering, however caused, of the winter-water table. Because no detailed shallow groundwater modelling has been done it is impossible to say how vulnerable the deposits are because the balance between soil/slope through flow, any overland flow, the capillary fringe and groundwater is unknown.</p>		<p>Kommentert [CA(2): This detail was not presented at the meeting and is not appropriate for inclusion as part of the minutes</p>
<p>4.</p>	<p>A303 water environment work</p>		<p>Kommentert [CA(3): This should be changed to "Highways England stated that"</p>
	<ul style="list-style-type: none"> • Highways argued that their desk study has considered the regional context – BGS boreholes, scheme boreholes/test pits, meteorological data. Site works have included water quality and levels around the Abbey pond, spring, and the River Avon. 'Hind casting' reviews highlight the max. and min. levels in the data (2014, 1976) as well as the typical range. The data support a conceptualisation of the water environment equivalent to the recent Historic England guidance Tiers 1-3 (out of 4). • Highways argued that the proposed tunnel would pass through the unsaturated and saturated zones of the chalk and would cause only very minor changes to the aquifer levels – model indicates a small (2mm) increase to the north and a similar fall to the south – but will not significantly change regional groundwater flows. The tunnel will not affect Blick Mead, because it is some distance away and flows around the tunnel will continue. • David Jacques and Tony Brown did not agree that the scheme would have no impact on the Blick Mead site, as i) there has been no detailed shallow groundwater modelling analysis of the local water table at the site; ii) the proposed flyover adjacent to the Blick Mead site, which is part of the tunnel scheme, has a different drainage system and gradient slope for water run off as compared to the existing stretch of the A303 which runs adjacent to the site. These are potentially important differences that need to be assessed in detail before an accurate account of the dynamics of the local water table can be made. • Highways argued that The Scheme entails essentially no change in levels adjacent to Blick Mead and highway drainage will be retained at the same levels. The highway drain is effectively the boundary condition – if heads and flows maintained as is, there should be no change on site. • David Jacques and Tony Brown questioned the basis of this argument and stated that water table monitoring at Blick Mead should start as soon as possible. The point was made that there is considerable variation in the water table across the year. • It was concluded by Highways England representatives that there should be negligible impact on the Blick Mead site, but David Jacques and Tony Brown disagreed. • Highways England agreed to the proposal that a yearlong programme of monitoring of the water table must proceed in order to be in a position to demonstrate the Scheme does not harm the site. Blick Mead was described as a "nationally important site" by Phil McMahon and that was 		<p>Kommentert [CA(4): This should be changed to "Highways England stated that"</p>
			<p>Kommentert [CA(5): This should be changed to "Highways England stated that"</p>
			<p>Kommentert [CA(6): Highways England did not agree to a yearlong programme of monitoring. At the meeting Highways England agreed that some monitoring should occur but that it would be based on the results of the tiered assessment yet to be undertaken.</p>

Minutes **A303 Stonehenge – Amesbury to Berwick Down**

	supported by Jim Williams. Highways England argued that monitoring is not required for the EIA or DCO application.	
5.	<p>Actions</p> <ul style="list-style-type: none"> • AmW to prepare a Tiered Assessment following Historic England published guidance. • AmW to continue to monitor existing boreholes and river levels and explore opportunities to install piezometers in and around the Blick Mead site. Once installed ongoing monitoring via piezometers will be possible. • HE/AmW to share the findings of the Tiered Assessment with David Jacques. • It was agreed that yearlong monitoring would commence at the earliest opportunity and that this work would be paid for by Highways England. It was agreed that either Tony Brown or David Jacques would be present at Blick Mead when the monitors were being installed and would be advisors beforehand. 	
6.	<p>Date and location of next meeting</p> <ul style="list-style-type: none"> • None 	

Kommentert [CA(7): This should be changed to "Highways England stated that"

Kommentert [CA(8): Highways England did not agree to a yearlong programme of monitoring. At the meeting Highways England agreed that some monitoring should occur but that it would be based on the results of the tiered assessment yet to be undertaken. It was suggested by Historic England that David Jacques and Tony brown should be consulted on the works.

NEXT MEETING

Date: TBC **None set** **Time:** TBC **Location:** TBC

DRAFT

Bush, Mark

From: Bush, Mark
Sent: 01 May 2019 23:16
To: Bush, Mark
Subject: FW: Disputed Minutes from meeting with Highways on 16th April 2018

From: McMahon, Phil [Phil.McMahon@HistoricEngland.org.uk]
Sent: Friday, February 22, 2019 11:44 AM
To: Williams, Jim; Clark, Andrew (Bristol)
Cc: David Jacques; Tony.Brown@soton.ac.uk; Moore, Chris; Macnab, Neil; Mcquade, Steve; Sladen, Jane; Kelly, Travis
Subject: Re: Minutes from meeting with Highways on 16th April 2018 - DRAFT

Hi Andrew,

My thoughts are similar to Jim's although I am content to have it recorded that the site is of national significance even if its character and extent are not yet understood. The lithics emerging from the site alone demonstrate this, and I am on record as having said it before. However it seems to me that rather than recording the main points of the meeting, the wider tensions between parties are now starting to being played out, which is not the purpose of meeting minutes. Certainly the introduction of new information not discussed at the meeting is not appropriate for inclusion in the minutes.

Jim's point about the time-lapsed between last April and now is also pertinent and I think a degree of reasonableness is required to wrap this up. The appropriate place to air detailed issues about the merits of the scheme in a publicly accessible format is within Written Representations, which all parties will doubtless wish to do when the Planning Inspectorate announces that they can be submitted ahead of Examination.

best wishes

Phil
Phil McMahon | Inspector of Ancient Monuments
Direct dial: 0117 975 0699
Mobile phone: [REDACTED]

Historic England | 29 Queen Square
Bristol | BS1 4ND



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Siv Elisabeth Hveberg

Fra: Siv Elisabeth Hveberg
Sendt: 30. april 2019 10:08
Til: Siv Elisabeth Hveberg
Vedlegg: BM monitoring emails.docx

From: David Jacques
Sent: Monday, February 25, 2019 6:28 PM
To: Phil.McMahon@HistoricEngland.org.uk; Williams, Jim; Clark, Andrew (Bristol)
(Andrew.Clark@highwaysengland.co.uk)
Cc: [REDACTED] Chris.Moore@aecom.com; jane.sladen@aecom.com; David
Cornelius-Reid
Subject: Minutes from meeting with Highways on 16th April 2018 - Blick Mead

Dear Andrew,

Thank you for inviting comments about the minutes taken during the meeting Highways/AECOM organised on the 16th of April 2018. I completely agree with Jim Williams email below. It is frankly ridiculous that these minutes should have been sent out so long after the event. Bearing in mind the importance of getting the processes agreed to assess the local water table at Blick Mead these minutes should have been made public within days.

The long delay in getting the minutes out seems to have contributed to some confusion about a key issue: did the meeting agree that the water table at Blick Mead should be assessed over a 12 month period? Bearing in mind the importance of the site and its proximity to the planned flyover for the tunnel this is an important point to get right.

Fortunately there is a record of communications between Chris Moore, Phil McMahon and myself, with Jim Williams, yourself and other Highways staff cc'd in, which clearly shows that we agreed that monitoring at the site would last for 12 months and beyond (see attached). The first email exchanges were in May 2018, so just a month or so after the meeting. The last was in October 2018 and was in response to a letter from Heather Price of Highways who said the assessment had already been done at Blick Mead when it had not been started! (see last email in the attachment).

I wrote to yourself and Jane Sladen two weeks ago suggesting that water meters should be installed in the areas where we have dug at Blick Mead, under our supervision, from April 17th this year. That will be almost exactly a year since the meeting. This work should last for at least 12 months.

Best wishes,

David

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG
Email: [REDACTED]

From: david jacques [davidjacques1@yahoo.co.uk]
Sent: Monday, February 25, 2019 2:39 PM
To: David Jacques
Subject: bm

Bush, Mark

Subject: FW: Minutes from meeting with Highways on 16th April 2018 - Blick Mead 2)

From: David Jacques
Sent: Monday, March 04, 2019 2:33 PM
To: Clark, Andrew (Bristol); Phil.McMahon@HistoricEngland.org.uk; Williams, Jim
Cc: [REDACTED]; Tony.Brown@soton.ac.uk; Chris.Moore@aecom.com; jane.sladen@aecom.com; David Cornelius-Reid
Subject: RE: Minutes from meeting with Highways on 16th April 2018 - Blick Mead

Dear Andrew,

Thank you for your response below.

I think I do have things clear now. **So Highways/Aecomm will be monitoring the local water table at Blick Mead, but the data will not be assessed.** Isn't this what happened at Star Carr?

- 1) There was a warning from Tony Brown, and others, that the infrastructure project there would destroy/denude organics and archaeology.
- 2) English Heritage agreed to a monitoring programme.
- 3) That monitoring programme then monitored the water table going down to the point where the Mesolithic archaeology and related organics were destroyed/denuded.

Tony and I both raised the Star Carr parallels in the 16/4/18 meeting.

I am also clear that your Tier 2 assessment was carried out using general models before any water meters were placed at Blick Mead. An assessment of the local water table dynamics at Blick Mead is urgently required in order to best protect the organic Mesolithic archaeology known to exist there.

Regards, david

David Jacques
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG

Email [REDACTED] **Error! Filename not specified.**

From: Clark, Andrew (Bristol) [Andrew.Clark@highwaysengland.co.uk]
Sent: Wednesday, February 27, 2019 4:29 PM
To: David Jacques; Phil.McMahon@HistoricEngland.org.uk; Williams, Jim
Cc: [REDACTED]; Tony.Brown@soton.ac.uk; Chris.Moore@aecom.com; jane.sladen@aecom.com; David Cornelius-Reid
Subject: RE: Minutes from meeting with Highways on 16th April 2018 - Blick Mead

David.

Sorry for any confusion caused. My sentence in full states "For clarity, the meeting did not agree to assessment of the local water table at Blick Mead over 12 months." My statement was that we would carry out the appropriate tiered assessment, not that we would conduct assessment over 12 months as a minimum period. We have completed the tiered assessment.

The tiered assessment has been undertaken to tier 2 and was included as part of the Environmental Statement in the DCO submission, monitoring is underway and will continue for the foreseeable future as long as all parties agree to allow us access.

The tiered assessment is annex 3 of the Ground Water Risk Assessment for the Scheme, it can be found here: https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/projects/TR010025/TR010025-000435-6-3_ES-Appendix_11.4_GroundwaterRiskAssessment.pdf

Regards,

Andrew

From: David Jacques [mailto:david.jacques@buckingham.ac.uk]

Sent: 26 February 2019 12:26

To: Clark, Andrew (Bristol) <Andrew.Clark@highwaysengland.co.uk>; Phil.McMahon@HistoricEngland.org.uk; Williams, Jim <Jim.Williams@HistoricEngland.org.uk>

Cc: alexburghart@gmail.com; Tony.Brown@soton.ac.uk; Chris.Moore@aecom.com; jane.sladen@aecom.com; David Cornelius-Reid <david@amesburyabbey.com>

Subject: RE: Minutes from meeting with Highways on 16th April 2018 - Blick Mead

Dear Andrew,

Can you please explain what the substantive difference is between Highways/Aecom conducting the tiered assessment and water monitoring of Blick Mead for 12 months and beyond (as per your colleague Chris Moore's email below) and you saying that the meeting on 16/4/18 did not agree to an assessment of the local water table at Blick Mead. Will the tiered assessment be Tier 4, as required?

david jacques [davidjacques1@yahoo.co.uk]; Andrew Clark (Bristol) [Andrew.Clark@highwaysengland.co.uk]; Sladen, Jane [jane.sladen@aecom.com]; Macnab, Neil [neil.macnab@aecom.com]; McMahon, Phil [phil.mcmahon@historicengland.org.uk]

Inbox

Tuesday, May 29, 2018 11:28 AM

Hi David,

Yes, I can confirm that the intention is to commence monitoring at the earliest opportunity, the monitoring will extend beyond 12 months and continue through the construction phase.

All monitoring will of course need to be agreed with the landowner in regards to the placing of monitoring equipment, and agreement for periodical visits to undertake readings and maintenance of equipment.

Best regards,

Chris Moore BA MCifA

Deputy Heritage Lead, A303 Stonehenge Technical Partner

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

Best wishes,

David

David Jacques

Professorial Research Fellow in Archaeology

School of Humanities

The University of Buckingham
Buckingham, MK18 1EG

Email: [REDACTED]

From: Clark, Andrew (Bristol) [Andrew.Clark@highwaysengland.co.uk]
Sent: Tuesday, February 26, 2019 11:16 AM
To: David Jacques; Phil.McMahon@HistoricEngland.org.uk; Williams, Jim
Cc: [REDACTED]; Tony.Brown@soton.ac.uk; Chris.Moore@aecom.com; jane.sladen@aecom.com; David Cornelius-Reid
Subject: RE: Minutes from meeting with Highways on 16th April 2018 - Blick Mead

All,

It would seem from the exchanges that producing retrospective minutes is not appropriate at this time.

As a result, If you agree, I will withdraw the minutes and provide a record of the actions taken from the meeting by HE/AMW, these are;

- HE/AMW will produce a tiered assessment in line with Historic England Guidance;
- HE/AMW will share this with David Jacques and Tony Brown;
- HE/AMW will undertake monitoring of the hydrology at Blick Mead in accordance with the tiered assessment.

David,

For clarity, the meeting did not agree to assessment of the local water table at Blick Mead over 12 months. We agreed to conduct the tiered assessment and carry out monitoring of the site.

The assessment that is mentioned in the email from Heather Price was that required for the Environmental Impact Assessment for the scheme as recorded in the Environmental Statement in the DCO.

Highways England is reviewing your proposal to install further monitoring equipment and will respond in due course.

Regards,

Andrew

From: David Jacques [REDACTED]
Sent: 25 February 2019 18:28
To: Phil.McMahon@HistoricEngland.org.uk; Williams, Jim <Jim.Williams@HistoricEngland.org.uk>; Clark, Andrew (Bristol) <Andrew.Clark@highwaysengland.co.uk>
Cc: [REDACTED]; Tony.Brown@soton.ac.uk; Chris.Moore@aecom.com; jane.sladen@aecom.com; David Cornelius-Reid <david@amesburyabbey.com>
Subject: Minutes from meeting with Highways on 16th April 2018 - Blick Mead

Dear Andrew,

Thank you for inviting comments about the minutes taken during the meeting Highways/AECOM organised on the 16th of April 2018. I completely agree with Jim Williams email below. It is frankly ridiculous that these minutes should have been sent out so long after the event. Bearing in mind the importance of getting the processes agreed to assess the local water table at Blick Mead these minutes should have been made public within days.

The long delay in getting the minutes out seems to have contributed to some confusion about a key issue: did the meeting agree that the water table at Blick Mead should be assessed over a 12 month period? Bearing in mind the importance of the site and its proximity to the planned flyover for the tunnel this is an important point to get right.

Fortunately there is a record of communications between Chris Moore, Phil McMahon and myself, with Jim Williams, yourself and other Highways staff cc'd in, which clearly shows that we agreed that monitoring at the site would last

Andrew

From: David Jacques [REDACTED]
Sent: 09 April 2019 14:41
To: Clark, Andrew (Bristol) <Andrew.Clark@highwaysengland.co.uk>; jane.sladen@aecom.com;
Tony [REDACTED] barry.cunliffe@arch.ox.ac.uk; Phil.McMahon@HistoricEngland.org.uk;
alexburghart@gmail.com
Subject: Highways breaking agreement to install water meters to monitor hydrology at Blick Mead
Importance: High

Dear Andrew,

It is very disappointing to read that Highways England is withdrawing from the promises made in our meeting at Blick Mead on 21 December 2018 whereby Highways England asked for co-operation and you explicitly stated that the Blick Mead project would get what was requested for that to happen. We discussed both the placements of additional water meters and the cost of the work done by myself and Professor Tony Brown as a result of the installation of water meters being placed in an exceptional archaeologically sensitive part of the site without permission at Blick Mead in November 2018.

In our 21 December meeting, you agreed with me that Highways would install additional water meters on site, subject to the approval of placement by myself of Professor Tony Brown. This is reflected in my short summary of the meeting in my email of 8 January 2019 (attached). You agreed to most of the summary in your email of the same date, including the part relating to water meters (attached). As agreed on 21 December, I followed up with specification of what was needed in an email on the 25 January (attached). Every contact between myself and Highways England representatives since has been with the common understanding that those demands would be met and that the additional water meters should be installed in April 2019. It is only now, after the preliminary hearing last week, that you claim there never was an agreement.

I have to say that I am disappointed in you personally, someone who shook my hand in front of witnesses on 21 December and agreed to the extra placement of water meters and other requests as outlined in my email summary of the 8th of January. I am also disappointed in Highways England, a company which should aspire to behave ethically in all aspects of their business. Even your own written acceptance of the summary of the meeting on the 8th of January 2019 (bar point 5) apparently does not persuade you from withdrawing unilaterally from our agreement. We have had considerable expense in the trust of this agreement, which you agreed to cover in the meeting of 21 December.

Regards, David

From: Clark, Andrew (Bristol) [Andrew.Clark@highwaysengland.co.uk]
Sent: Tuesday, April 09, 2019 10:12 AM
To: David Jacques; Sladen, Jane; [REDACTED]
Subject: RE: A303 Monitoring at Blick Mead

Dear David,

This is to provide you with a quick response to your email on Friday. Further to my email of February 26th, we have given careful consideration to your request for the installation of further piezometers at Blick Mead for monitoring groundwater levels. However, we have not been able to determine the additional value that would be gained from the extra installations. As such we cannot confirm that Highways England is able to carry out such works. We will though continue to monitor and maintain the existing boreholes and data loggers, assuming agreement with the land owner and yourself for ongoing access.

The additional works you request go beyond the scope of the works discussed by Highways England, Historic England and the Blick Mead project to provide monitoring of the water table at Blick Mead. We consider that the monitors that are already in place are sufficient for this purpose. I understand that this news may be disappointing for you.

At the Preliminary Meeting on 2nd April, we were asked to consider entering into a Statement of Common Ground with yourself and I will be in touch again shortly about this.

Best Regards,

Andrew

From: David Jacques [redacted]
Sent: 05 April 2019 19:21
To: Sladen, Jane <jane.sladen@aecom.com>; Tony.Brown@soton.ac.uk
Cc: Clark, Andrew (Bristol) <Andrew.Clark@highwaysengland.co.uk>
Subject: RE: A303 Monitoring at Blick Mead

Thank you Jane,

I am on my way to Amesbury now to meet Ben Pears of Southampton University on site tomorrow. Ben and a colleague will be plotting where the rest of the data points should be at BM over the weekend.

Can you let us know when you will be installing the meters pleased. We discussed you putting them in from the 17th of April. Would you mind sending David Cornelius-Reid, Tony Brown and myself prospective dates asap please.

Best wishes, david

David Jacques
Professorial Research Fellow in Archaeology
School of Humanities
The University of Buckingham
Buckingham, MK18 1EG

[The Times and The Sunday Times University of the Year for Teaching]

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in detail what part of my email of 25 January Highways England does not agree with and to explain how you see your (Highways England and its contractors and subcontractors) actions in the period between 25 January and 9 April as acting in good faith towards the Blick Mead project and myself.

Re your closing remarks: can you point me to the ExA's request about the agenda for the SoCG. Our associates will be dealing with the SoCG on this issue. We see no need for a meeting, it can all be done by email.

Regards, David

From: Clark, Andrew (Bristol) [Andrew.Clark@highwaysengland.co.uk]
Sent: Tuesday, April 16, 2019 4:03 PM
To: David Jacques; jane.sladen@aecom.com; Tony.Brown@soton.ac.uk; [REDACTED]
Phil.McMahon@HistoricEngland.org.uk; alexburghart@gmail.com
Subject: RE: Highways breaking agreement to install water meters to monitor hydrology at Blick Mead

Dear David,

Referring to your email of 9 April, I understand your overall disappointment at our not proceeding with the installation of additional water meters, but it is incorrect to state that I had previously agreed to their installation. My email of 8 January (to which you refer) clearly states that I did not agree to funding any costs without understanding and agreeing the basis of such costs, and that included your proposal for additional water meters. My email of 26 February reiterated that we were still at that time considering your proposal and had yet to make a decision. Having given your proposal careful consideration, we have now reached the conclusion that we cannot see what added value could be gained that could justify our carrying out the works.

We are grateful that you have continued to allow access to the existing boreholes at Blick Mead to maintain the equipment and to continue to take readings.

With regards to producing a Statement of Common Ground we can meet you at your convenience. Please can you provide dates in May to progress this matter.

The ExA suggests that the SoCGs should cover the following topics where relevant:

- * Methodology for environmental impact assessment including assessment of cumulative effects.
- * Data collection methods.
- * Baseline data.
- * Data/ statistical analysis, approach to modelling and presentation of results (including forecast methodologies).
- * Full expression of expert judgements and assumptions.
- * Identification and sensitivity of relevant features and quantification of potential impact.
- * Likely effects (direct and indirect) on special interest features of sites designated or notified for any nature conservation purpose.

Feasible and deliverable mitigation and method for securing such mitigation within the DCO.

Best Regards,

From: David Jacques

Sent: Thursday, April 18, 2019 4:27 PM

To: Clark, Andrew (Bristol) (Andrew.Clark@highwaysengland.co.uk); [REDACTED]

[REDACTED] Phil.McMahon@HistoricEngland.org.uk; [REDACTED]

Subject: Highways breaking agreement to install water meters to monitor hydrology at Blick Mead

Dear Andrew,

I have no doubt that you and I agreed on 21 December that the additional water meters should be installed and that the cost of this should be borne by Highways England. In fact, you apologized when I was upset about the potential damage done by the water meters put in at the site without consent from me or the landowner, and it was you who proposed a cooperation.

The installation of the additional water meters was the foundation of our proposed cooperation, as outlined in my email to you on 8/1/19.

Below and in full is my email to you of the 8/1/19 and your reply to it on the same day. Your only objection was point 5 which explicitly concerned costs in time resulting from the mistakes Highways made installing water meters at Blick Mead without permission. The cost of water meters were known to Highways England as you had already placed identical water meters in other areas owned by Amesbury Abbey in 2018. In your response you explicitly agreed to points 1-4. Indeed, your acceptance of point 2 showed that you agreed, on behalf of Highways, that additional water meters would be installed.

From: Clark, Andrew (Bristol) [Andrew.Clark@highwaysengland.co.uk]

Sent: Tuesday, January 08, 2019 4:25 PM

To: David Jacques; jane.sladen@aecom.com

Cc: seh@hveberg.no

Subject: RE: Meeting at Blick Mead 21/12/18

David,

Thank you for this useful summary of our meeting. Whilst I agree with points 1-4 that you have made, I did not agree to point 5 as presented.

I have no authority within Highways England to agree a blanket coverage of costs. Whilst I recognise that costs have been incurred by yourself, I agreed that HE would consider your costs

From: Clark, Andrew (Bristol) <Andrew.Clark@highwaysengland.co.uk>

Sent: 24 April 2019 02:33

To: David Jacques; [REDACTED]; Woodhouse, Helen

Subject: RE: Highways breaking agreement to install water meters to monitor hydrology at Blick Mead

Dear David,

Thank you for your email of 18 April. Unfortunately there is little I can add to my emails of 9 & 16 April.

We have considered your request for additional water meters, following the details you provided on 25 January, and have decided against them for the reason already stated, that we cannot see that added value could be gained which could justify the use of public funds for carrying out the work. My earlier caveat about not being in a position to agree further costs being incurred included consideration of your request. I can only apologise if that was not clear.

We will be pleased to continue co-operating with you in maintaining and monitoring the existing water meters.


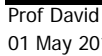
As to the Statement of Common Ground (SoCG), the suggested agenda is set out in the Examining Authority's 'Rule 6' letter (Annex E), a copy of which is attached for ease of reference. If you can point me to who you would like us to engage with over the SoCG, we will make contact with your associates and seek to move forward on this.

Regards,

Andrew

From: David Jacques [REDACTED]

Sent: 18 April 2019 16:28

From: 
To: 
Subject: Prof David Jacques statement re meeting of 6.12.18
Date: 01 May 2019 22:19:19

Re my report of the 6th of December 2018 meeting:

I met with Jane Sladen and two of her colleagues at Blick Mead on 6th of December to assess the damage done by the installation of a water meter by her team without permission in the area of the site where the excavation team had discovered aurochs hoof prints that date earlier than the mid 7th millennium BC. We first examined the area where the water meter was. I could see it was adjacent to the excavation area which had revealed a mid 7th century BC people laid platform surface which had perfectly preserved aurochs hoof prints under it. I first asked JS and her team where the recording of the spoil which had been taken out in order to install the meter was. I was shown some I phone pictures which showed top soil and then Chalk deposits which come from below the spring. I was therefore immediately aware that there were missing sections of stratigraphy. These should have shown hill wash and in situ units of archaeology from the platform area between the top soil and the chalk and they were missing. No satisfactory answer was given for this omission in the record. I asked whether the archaeologist who I was told was there to supervise the installation of the meter was aware that there was nationally important archaeology in this area. No clear answer was given and I was left with the impression that he did not know. JS and her colleagues were contrite and apologetic about what happened re the poor communication and lack of due care being taken . It was accepted that the meter would not have been installed if Tony Brown or myself had been there, as had been agreed in the meeting we had on April 16th with Highways and Historic England officials. JS accepted there had been a communication breakdown. We agreed to meet on the site later in December to discuss better ways forward to organize the installation of water meters at Blick Mead, which all accepted was required. We later met with Andrew Clarke (who I was not told would be attending) on the 21st of December.

David Jacques

I, Siv Elisabeth Hveberg, [REDACTED], attended a meeting at Blick Mead in Amesbury in England on 21 December 2018 with professor David Jacques from the Blick Mead Project. Present representing Highways England was Mr. Andrew Clarke and Jane Sladen.

The meeting took place only a short time after massive media coverage of the probable damage of the Mesolithic platform and the Aurochs hoof prints by Highways England as a result of placing water meters on the site.

Professor David Jacques initially showed a photo of placements of existing and additional water meters on the site, and clearly expressed his opinion over what had taken place. Mr. Andrew Clarke apologized unconditionally and requested cooperation from the Blick Mead Project. Such cooperation was accepted by professor David Jacques and the rest of the meeting was amongst other things dedicated to looking at the existing water meters, Highways England sharing information of how they functioned and the process of collecting data from them.

It was clearly expressed from professor David Jacques that the placement of the additional water meters the Blick Mead Project thought were necessary to give the necessary hydrological results to be able to conclude on whether the site would be influenced by the proposed tunnel had to be placed by Highways England under supervision of himself or professor Tony Brown. It was my understanding that the placement of water meters had been agreed prior to the meeting since the water meters were discussed with seemingly the same understanding with between the parties; that there should be additional water meters placed at the instruction of the Blick Mead Project and at the cost of Highways England. There were no questions, concerns or objections raised by Mr. Clarke to anything said by professor David Jacques about water meters or anything else for that matter.

In relation to future cooperation professor David Jacques raised concern over the cost incurred as a result of work related to Highways England already and the work to come as a result of the cooperation. Mr. Clarke nodded to express his agreement that Highways England should cover such costs. I then asked Mr. Clarke what the scope of a cooperation with Highways England would be and Mr. Clarke said "*anything you want, basically.*" It was agreed that professor David Jacques should specify his demands to such a cooperation in writing.

Just for clarity I also mention that Mr. Clarke did not say that he didn't have authority to commit on behalf of Highways England. Because of his position with the company it was understood by me that he had such authority.

I would like to specify that my presence in the meeting was not as the legal representative of professor David Jacques or the Blick Mead Project, but as a part of the Blick Mead team.

Hamar, 17 April 2019

Siv Elisabeth Hveberg

Advokat, member of the Norwegian Bar Association

Solicitor, member of The Law Society of Scotland

Mediator, certified by the Norwegian Bar Association

The context and significance of the Blick Mead archaeological site, and its potential for further excavation and study – Prof David Jacques, Director of the Blick Mead Project (University of Buckingham).

The material remains recovered at Blick Mead have to be set against the extraordinary radiocarbon dates from organic remains in trenches 19, 22, 23, 24 and 24c, the fact that they were only encountered for the first time less than ten years ago and the limitations on the excavations at the site.

So far twenty one dates have been obtained from these trenches, with the earliest dating to around 8000 cal. BC and the latest around 3600 cal. BC. This is the longest sequence of Mesolithic to early Neolithic dates in North Western Europe. Prior to Blick Mead there were no 7th-5th millennia BC dates recovered from the World Heritage Site. Of particular interest are the mid 7th millennium BC dates from a unique laid stone surface, which runs along the terrace edge for at least 10m. The preserved organics and artefacts here point to the possibility of learning more about the impact of people coming and going to the continent and the site via the land bridge at Doggerland. The very late 5th millennium BC dates, which date the earliest dwelling and occupation surface found in the Stonehenge environs, are also of national importance and interest. In the latter case there is the tantalising prospect of finding a locale at Blick Mead which was an interface between the first Neolithic peoples in the landscape and the last hunter gatherers in England around 4000 BC. Blick Mead is also crucial for linking Late Mesolithic use of the landscape with construction of the first monuments at the beginning of the Neolithic. The earliest Neolithic dates from Salisbury Plain come from animal bones at the base of the large pit better known as The Coneybury Anomaly (OxA-1402, 3950 – 3790 cal BC; Richards 1990) and the primary fill of the inner ditch at Robin Hood's Ball (OxA-15254, 3640 – 3370 cal. BC; Whittle *et al.* 2011, 194 – 202). The datable organic material has survived due to the wet environment that it sits in. Study of the faunal remains (aurochs, red deer, wild boar, roe deer, salmon, trout, pike, toad, pine marten and dog) indicate the material has not moved very far since primary deposition in a seemingly homogeneous water lain deposit. Likewise, the discovery of exceptionally well preserved aurochs hoof prints underneath the 7th millennium BC platform surface in Trench 24c underscores how important the water table level is at Blick Mead in order for these fragile and ancient remains to survive into the future. Further, we have only excavated a fraction of the known surveyed site, so well-preserved remains, some *in situ*, will be available for future study. In our view it is not enough to learn as much as we can now before it is destroyed. Improvements in science and technology going forward will yield ever more detailed and nuanced results as time goes on.

Whether the faunal and lithics material was 'discarded' or deliberately 'curated' and deposited with care into the water, is an important research question to address in the future. At the much bigger, but shorter-lived site at Star Carr in North Yorkshire, it has been argued that the dense concentrations of occupation material from the lake edge represent areas of *in situ* human activity (Milner *et al* 2018).

A relatable question is how does the high density of archaeological material at Blick Mead and long-lived use of the site lasting over 4000 years translate to how often the site was visited and for how long at a time? At Star Carr close interval dating of macro and micro-charcoal in pollen profiles was used to determine how often the site was

visited over the 200-300 years of its occupation (Mellars and Dark 1998), while at Howick successive lenses of debris in the sunken post-built structure indicate regular or continuous occupation (<http://antiquity.ac.uk/ProjGall/Waddington/waddington.html>). At present it is not known whether such evidence exists at Blick Mead. What is increasingly clear from the research so far is that Blick Mead was a pivotal point in the landscape during the Mesolithic period and probably later and that it was a place which hunting groups radiated out from and journeyed to from a distance.

Bishop (in Jacques et al 2018) reports that the microlith types at Blick Mead are “extremely diverse” and suggestive of axis of influence stretching to the Midlands, East Anglia, the Weald and the far West. The sandstone, chert and sarsen artefacts found also indicate materials moving considerable distances. The large amount of uniformly burnt pieces of flint, burnt on an intensive scale rarely seen at Mesolithic sites, and large herbivore bones, hint at mass gatherings and feasting on an exceptional scale.

The percentage of aurochs from the identified remains (57% Rogers et al. and Charlton *ibid*) is the highest found nationally and from the near continent for a Mesolithic site. The isotopic results from two of them point to them being local animals (Rogers et al. *ibid*) and their availability could have been a factor in site location. Their movements are likely to have been tracked by people and dogs. An isotopic analysis of a domestic dog’s tooth found in the Mesolithic layers revealed that it likely travelled from outside of the area and was eating the same meat as people at the site were eating, particularly aurochs, and also red deer, wild pig and some fish (Rogers et al 2019). The dog has been interpreted as a prestigious hunting dog travelling a long way with people to a prestige hunt (Rogers et al 2016).

The red algae, *Hildenbrandia Rivularis*, present in the water in the spring-fed pool at the end of the spring line, turns red oxidised flint into a bright magenta pink within days of it being removed from the water which is a natural dye. This change is rather magical even to 21st century eyes. The phenomenon has not been previously recorded at an archaeological site in the British Isles (John in Jacques et al 2018) and it may have been another reason why people travelled to Blick Mead from far and wide.

Until now, Mesolithic find-spots in the Stonehenge landscape have been described in isolation, but they can now start to be brought together as a result of the discoveries at Blick Mead to reveal potential patterns of use in the landscape. The areas north and south of the A303, as well as to the east of the site have yet to be assessed, but the evidence so far points to a deeper occupation of the area and one that evidentially endured throughout the Mesolithic period. Even where the evidence is not conclusive, e.g, from the pollen remains at Blick Mead, it still pinpoints intriguing possibilities that are suggestive of early woodland clearances (Brown et al forthcoming).

Blick Mead is thus a nationally important heritage asset and one that has great potential to yield future discoveries which will be enhanced by new technologies and scientific methods (e.g, refined carbon date calibration, seDNA, ZooMs, lipid analysis, sonar). In the near future the Mesolithic may well emerge as a starting point for understanding the better known archaeology of the Stonehenge World Heritage Site.

Professional Assessment of the A303 Amesbury to Berwick Down TR010025 &.3 Environmental Statement Appendices. Appendix 11.4 Annex 3 Blick Mead Tiered Assessment. October 2018.

Prof A. G. Brown BSc, PhD, FGS, FSA

This is a commentary on the assessment of the *A303 Amesbury to Berwick Down Annex 3* (October 2018) by Highways England under the Planning Act 2008 (a copy of which is appended to this representation) using the Historic England Guidance (2016) as a framework for the evaluation of potential harm to the archaeological site known as Blick Mead. The hydrological assessment Tiers recommended by Historic England are given below (Box 1). The Highways England Assessment is clear that it achieves level (Tier) 1, 2 and maybe 3 but not Tier 4. This critique evaluates whether the observations made in order to fulfill Tier 1, Tier 2 and Tier 3 are both correct and adequate, and secondly whether this is sufficient data to fulfil the Planning requirement of an environmental assessment. Followed by an assessment of the additional measures required to safeguard a recognized archaeological site of international importance.

<p>Box 1</p> <p>Tier 1: Desk study and site walkover to derive ‘first conceptual model’</p> <p>Tier 2: Basic qualitative assessment of water balance to identify groundwater levels, flow directions and identify key potential influences on the groundwater system</p> <p>Tier 3: Conceptual model testing using site-specific measurements, simple analytical equations and long-term average water balances, to arrive at a ‘better conceptual model’</p> <p>Tier 4: Development of a numerical groundwater model, calibrated and validated against monitoring data from the site and surrounding area. The model is then tested using detailed data, such as time variant levels, and more sophisticated analytical tools.</p>
--

There is no dispute that the wetland sediment levels and the archaeological layers encountered in Trenches 1,3,4,5,7,10,13,14,19,22 and 23 constitute a wetland part of the Blick Mead *sensu* Historic England (2016). These sediments are located on the northern section of Avon floodplain which abuts the present A303 and edge of the footprint of proposed A303 works. Furthermore some of these trenches can also be correlated with

the dry-elements of the site found in Trenches 9, 12 and 24 and which contain valuable archaeology such as the Aurochs hoof-prints. In the wetland areas archaeological and ecological artifacts were found between 67.85 m OD and 66m OD and even below 66m OD as debitage has been found in the basal sand and gravel. It follows that a watertable lowering below 67.85m OD and low levels of moisture in the unsaturated zone for any appreciable time will lessen the environmental potential of the site, which is otherwise very good as illustrated by the sometimes excellent bone preservation and preservation of some insects, pollen and plant macrofossils, and potentially *seda*DNA.

However, there is uncertainty and a lack of clarity in the appended document concerning the hydrology or the wetland part of the Blick Mead site. The Assessment states that it is a winter-flowing channel’ (p. 6) although it is later stated that no ‘ponding’ was observed during November 2017 and January 2018 visits (for a day only presumably). It is assumed that the observation that the lower part of the site is a winter-forming pond implies that it is accepted that during the winter after heavy rain or floods standing water forms at the site. It is clear from simple Lidar modelling (Appendix A) and height above the river banks (67.8m OD) of less than 1m (e.g. surface average in pond of 68.5m OD) that the site is a flood channel but it is also the site of a spring and was in the past a permanent spring-fed pool. In geomorphological terms it is also an old channel which had probably been abandoned by the early Holocene (early Mesolithic). So although the HE report states on p1. (and 2.3.1) that the site is a spring pond which was part of a palaeochannel at the apex of the floodplain bend, its formation is largely fluvial rather than just due to a spring. However, the

occurrence of springs under the floodplain (including into channels) is characteristic of chalk valleys in the Salisbury Plain region. It follows that anything that reduces the discharge of this spring would reduce the saturation of the archaeological deposits. However, the exact location of the spring and its yield are not known and so no data has been presented for this element in the hydrological budget of the site. The report in effect assumes that this is the only source of water and so if regional hydrogeological modelling shows that the scheme will not reduce spring discharges from the chalk aquifer then the site will be unaffected.

This is conceptually flawed for several reasons. Firstly we know that the spring is not the only source of water input to the site. There are four others that need evaluation:

- a) Flood-flow from the river
- b) Meteoric water (rainfall and snow)
- c) Surface water discharge (including return flow) onto the site from the adjacent slope
- d) Lateral through-flow from the surrounding floodplain and upstream

These will be discussed individually

a) Flood-flow from the river

Lidar modelling (Appendix A), historical aerial photographs and observations show that the entire floodplain of the Avon can be flooded, including the lower part of the site, although this is relatively rare (Environment Agency Flood Warning Site for Amesbury to Salisbury). Because of its infrequency this is unlikely to be a major or even significant contributor to the site water balance. The modelling by the Highways Agency does not discuss the potential effect of the scheme on flood flows as it assumes that if baseflow (groundwater discharge) is unaltered then floods would also be unaffected and this is accepted as this is an appropriate scale for the modelling approach they have employed.

b) Meteoric water (rainfall and snow)

Analysis of similar wetland sites including Star Carr in Yorkshire and floodplain wetlands in Midland England (Bradley and Brown 1995) have shown that these sites are very sensitive to meteoric inputs especially after they have been partially drained (Brown et al. 2011). The reason is that they are characterized by relatively impervious layers of clay and especially in the Spring and Summer can maintain a perched water table or at least relatively high moisture levels in these seasons. Along with the capillary fringe effect this perched watertable can act to preserve organic remains above the groundwater table for critical parts of the summer and this is particularly important in clay-rich sediments which occur at Blick Mead above the channel sands and gravels. However, although not included in the conceptual model there is no likelihood of the A303 scheme increasing meteoric water supply and so it is not material to the assessment.

c) Surface water discharge (including return flow) onto the site and slope throughflow

Given the slope into the lower part of the site formed by both the chalk and lynchet to the north it is likely that there is some lateral through flow into the site. Whilst being unlikely to significantly elevate the water table it would increase saturation in the unsaturated part of the sediment column adjacent to the slope. This is difficult to assess and is one of the reasons such sites require shallow groundwater monitoring and modelling. Rather curiously there is a reference to the possible augmentation of surface flow to the site from the A303 at present (2.5.5 p. 16) but the evidence upon which this is based is not given. IT is not clear from the

Appendix how the scheme would alter this as this depends upon the storm water drain layout and capacities.

d) Lateral through-flow from the surrounding floodplain and upstream

Floodplain sites receive input from upstream – in this case from floodplain to the north of the A303. It is not known how much the construction of the existing A303 impeded this flow but again this is an uncertainty in the site hydrology which could have a small but significant effect. There are also no comments in the Assessment concerning the longitudinal floodplain connectivity so it is impossible to judge any potential effects of changes to the A303 even on the existing footprint. It is also possible that the additional weight of the new road construction could further reduce any downstream shallow groundwater transfer but this is unknown without a report on the present subsurface conditions from geotechnical survey and calculation of any further compaction.

Comments on the Tier 1-3 Assessment

Just considering the Assessment at the levels of Tier 1 to Tier 3 there are significant weaknesses in the report. On page 3 (2.2.4) the peats are highlighted but in fact there are no true peats on the archaeological site, although there are peaty sediments off the site as shown in the boreholes undertaken by Reading University and these are presumably what are referred to. So the significance of this is not clear. As discussed above water has been observed in the 'pond' and it is clearly within the flood zone (both zones 3a and 3b in the SFRA River Flood Risk Site Map, Environment Agency). The map used for the superficial geology is not adequate as it is taken from the British Geological Mapping at a scale of 1:10,000 (probably mapped at 1:2,500 scale) and it is inaccurate in mapping the backwater part of the floodplain as 'peat'. This would need to be mapped at a scale of below 1:1000 to be used in a quantitative model as would be required by Tier 4. The critical archaeological levels should be related to Figure 2.12 along with conversions from the Amesbury shallow borehole and the River Avon monitoring location (Environment Agency Site 43113 at 51°10'17.6"N 1°47'06.6" which is downstream of Blick Mead. In the conceptual model (2.6.1) the statements relating to the 'low permeability of superficial deposits (peat, alluvial silts, and clays, and head deposits)' is over-generalised as there can be a large differences between the permeability of these sediments and no measurements of permeabilities have been made. On page 19 for more than Tier 1 level the statement that the archaeological sediments are 'normally located below piezometric level in the Chalk' needs to be qualified with a probability based on the existing data. On page 20, 2nd paragraph as indicated above there is no evidence presented to support the statement that "draining of the Mesolithic deposits layer will not occur immediately following a drop in groundwater level owing to their lower permeability". The evidence to support this statement can only be obtained by measurements of hydraulic permeability (or conductivity) and shallow groundwater modelling as recommended originally to the Highways Agency and undertaken at sites of comparable archaeological sensitivity and importance such as Star Carr.

Blick Mead Hydrological Sensitivity

From the height of the organic remains at Blick Mead (<66.13 to 67.85) it can be seen that the organic resource at Blick Mead lie at a very sensitive zone – above the River Avon typical winter-levels (c. 67.5m) and below the head provided chalk as shown in the Amesbury shallow borehole (68m and occasionally below). So the Highways Agency are correct in pointing out the critical importance of the regional aquifer in maintaining saturation through the spring discharge, however, this is probably not enough to ensure saturation during the summer and therefore other factors as outlined above are important. This is why it was recommended that the Highways Agency undertake

the installation of a grid of shallow observation tubes followed by a shallow groundwater modelling using MODFLOW or some similar modelling system, into which can be included all the factors mentioned in this report and also boundary conditions which could alter depending upon the detailed plans of the works including associated changes to the road drainage configuration. They chose not to do this and so not to assess the site at Tier 4. This seems remarkable given that in the case of Star Carr, which is of similar archaeological importance to Blick Mead, a Tier 4 Assessment was conducted by Historic England (then English Heritage) even after the damage had been done by under-drainage. The whole idea of the tiered assessment approach is to prevent, or to design mitigation plans in the face of, potentially damaging hydrological changes. For a site of the international importance such as Blick Mead this should include assessment at Tier 4.

References

Bradley, C. R. and Brown, A. G. Shallow groundwater modelling and the overbank contribution to a small floodplain bog. In A. G. Brown (Ed.) *Geomorphology and Groundwater*, Wiley, Chichester, 37-52.

Brown, A. G., Bradley, C., Grapes, T. and Boomer, I. 2011. Hydrological assessment of Star Carr and the Hertford Catchment, Yorkshire, UK. *Journal of Wetland Archaeology* 11, 56-62.

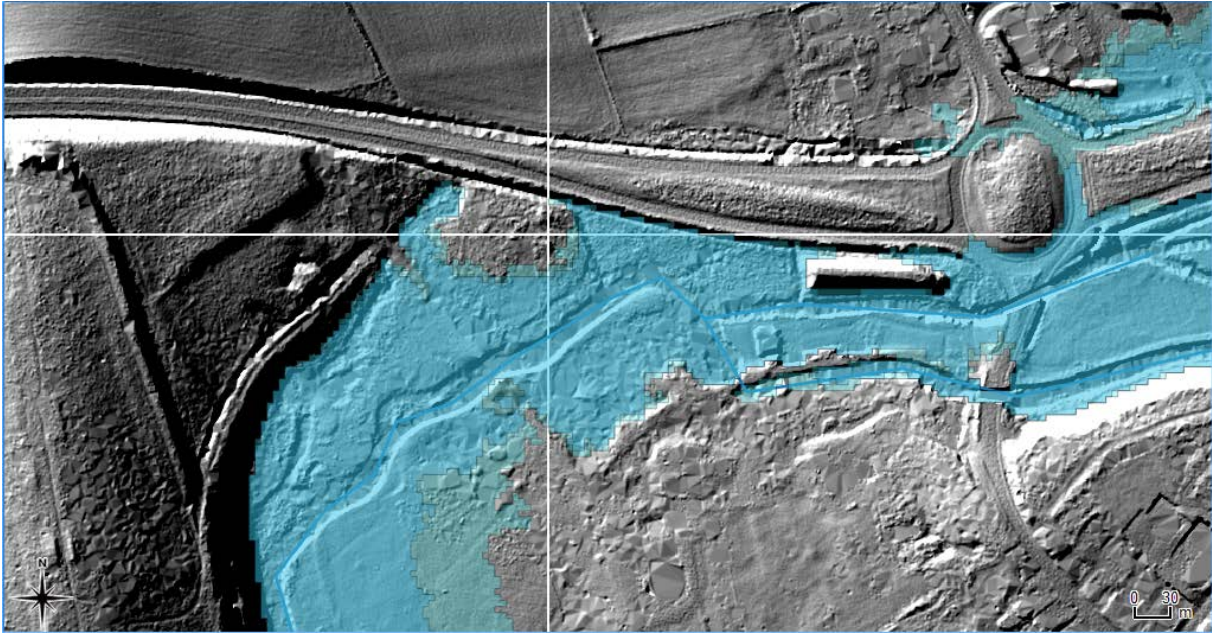
Historic England 2016. *Preserving Archaeological Remains: Appendix 3 – Water Environment Assessment Techniques*, Historic England, London.

Date: Tuesday, April 30, 2019

A solid black rectangular box used to redact the signature of the author.

Signed

Appendix A



DTM (1m) of Blick Mead with Environment Agency’s extent of flooding from rivers superimposed.