West Burton WSIs comments

As it currently stands we cannot agree these WSIs. Our position remains that the site has not been adequately evaluated in line with professional guidance and standard archaeological practice and as such we cannot recommend either of the proposed post consent strategies.

As we have consistently stated throughout the NSIP process, adequate trial trenching is required to inform an appropriate and fit for purpose mitigation strategy to adequately deal with the developmental impacts. This trenching should cover the full impact zone including the redline boundary and cable routes and be undertaken pre-consent to be in accordance with NPPF paragraphs 200 and 201 and the EIA Regulation 5 (2d)).

Trenching results are essential not only to inform mitigation but to ensure effective risk management and allows the developer to present a programme that is deliverable. As we are now in the post-submission stage we would do our best to facilitate completion of an appropriate scheme of trenching evaluation before the determination, to allow the results to inform a reasonable and robust site specific mitigation strategy.

We offer our specific comments on the WSIs below to give examples of the level and extent of issues we cannot agree.

Section 1.1.5 states that *'This WSI also takes into account the results of consultation and engagement undertaken with the Lincolnshire County Council Historic Environment Team (who also provide archaeological planning advice to Bassetlaw District Council, Nottinghamshire) and Historic England, throughout these stages of work, including regular meetings undertaken to monitor the progress of the evaluation trenching.'*

It does not. We have consistently stated throughout the engagement process that adequate trenching across the redline boundary is essential for providing sufficient baseline evidence to inform fit for purpose mitigation of the developmental impact across this scheme. Adequate trenching has only taken place across 21% of the scheme and therefore currently only 21% of the site can be effectively mitigated.

Section 2.1.26 states that geophysical survey was undertaken on land newly included by the change to the Order Limits. Evaluation trenching will also be required and the results used to inform any necessary mitigation works required to adequately deal with the development impact.

'Areas assessed to have archaeological potential, based on consideration of all available archaeological data, were targeted with evaluation trenches within the Cottam 3b Site, both to 'ground truth' the results of previous surveys and to provide samples of 'blank' areas, in which archaeological remains had not been identified by non-intrusive methods.' (sections 3.7.1, 3.13.1 and elsewhere)

This was not agreed by LCC, NCC or Bassetlaw who have consistently stated that the full impact zone including the redline boundary and cable routes must be adequately evaluated by trial trenching.

'Informative trial trenching' should be removed from section 6: Scope of mitigation fieldwork. Trial trenching is not a mitigation response, it is an evaluation technique. A full programme of trial trenching must be agreed across the full impact zone to an adequate level to inform the mitigation stage of archaeological work. The trenching results form the essential core of the baseline evidence

which provides the basis for the site-specific mitigation strategy which will need to be reasonable and proportionate.

Preservation in situ areas (section 7.2) do not include mitigation measures to ensure the preservation in situ areas are protected from development works such as machine tracking or plant storage which could damage or destroy the surviving archaeology. The full extent of the archaeological areas must be determined and each area must be fenced off and subject to a programme of monitoring throughout the construction, operation and the decommissioning phases, and there will be no ground disturbance whatsoever which may disturb or affect the archaeological remains, including plant movement or storage. The fencing will need to remain in place and be maintained throughout the lifetime of the scheme. They need an Archaeological Clerk of Works and the management strategy for the preservation in situ areas will need to be included in their CEMP to ensure the protection measures stay in place throughout the development.

Section 7.4.3 states that *'In line with the recommendation by Lincolnshire County Council Historic Environment Team for trenching across all areas of the Scheme, a further 552 untargeted trenches measuring 50m by 2m will be machine excavated (avoiding buffer zones as a result of utilities and ecological features, as well as areas where no ground disturbance will occur such as in the east of West Burton 2) (see Figures 2 to 6). Although these proposed trenches are untargeted —i.e. are not targeting features with a potential archaeological interest, they have been positioned with consideration to anomalies identified by geophysical survey, features identified by LiDAR and aerial photo mapping, and topographical changes.'*

Please clarify the LCC recommendation, where does the 552 trenches come from? In an attempt to reach concordance we moved from our initial 3% trenching + 1% contingency to 2% trenching in our meeting with PINS. A 2% sample of the redline boundary is approximately 1400 50m trenches. 342 trenches have been completed.

The proposed trenches not 'untargeted' if they are targeting geophysical survey anomalies and features. Please clarify.

Also, section 7.4.6 states that *'Once the detailed design of the Scheme has been finalised, in any areas where ground disturbance is not proposed, for example those areas that are being used for landscaping and ecological mitigation and enhancement, trenching would no longer be required as there would be no potential for impact to buried archaeological remains. Trenches in these locations would not be excavated.'*

This is incorrect. Landscaping and ecological mitigation work may have an archaeological impact, for example wildlife ponds and scrapes and tree planting. Trenching will need to take place across the impact zone as development impacts from all groundworks and plant movement whether for infrastructure, solar arrays or mitigation areas may damage or destroy surviving archaeology.

Section 7.4.8 states that *'Following excavation and recording of any archaeological remains, and with the agreement of the Lincolnshire County Council Historic Environment Team, the evaluation trenches will be backfilled with the previously excavated spoil.'*

All areas must be signed off by curatorial agreement before backfilling can commence.

Section 7.4.9 states that *'Where archaeological remains are encountered, the preference will be to preserve these in situ where possible using non-intrusive surface-mounted pre-cast concrete ground anchors.'*

If remains of a high significance are identified during the informative trial trenching, targeted open-area excavation may be required to preserve such remains by record (see below).

The use of ground anchors can only be used where surviving archaeology is at a depth and of a nature that would not be detrimentally impacted by the placement, settling and removal of the ground anchors. In areas of shallow deposits which encompasses much of this agricultural landscape, ground anchors would cause damage or destruction without investigation and without recording. For example on the adjacent West Burton scheme previously unexpected human remains were found in the first few days of trenching at a depth of 20cm below the ground surface.

There would be compaction when the ground anchors are installed, settling and readjustment during the decades of operational life and ground disturbance when the ground anchors are ripped out in decommissioning as the land will need to be restored *'to its preconstruction condition at the end of the operation.'* (C7.2 Outline Decommissioning Statement section 2.1.1). There is no mention of archaeology in the Outline Decommissioning Statement including Table 3.1 Decommissioning Mitigation and Management Measures.

Section 7.5.1 states that *'Similar to Open-Area excavation, 'Strip, Map and Sample' excavation will be employed where non-intrusive previous archaeological investigations have identified potential archaeological remains but, based on current evidence, these do not appear to be extensive or potentially significant enough to warrant Open-Area excavation'.*

Not acceptable. Effective fit for purpose mitigation of the developmental impact cannot be adequately determined through non-intrusive methods alone.

Strip map and sample excavation along with the rest of the mitigation options should be selected based on an understanding of the surviving archaeological resource across the site. Therefore intrusive as well as non-intrusive evaluation is required.

NPPF paragraphs 200 and 201 require the identification of archaeological remains, assessment of their significance and the proposal of suitable mitigation. Intrusive evaluation is essential for determining areas of archaeological mitigation. Strip map and sample excavation areas will be determined from interrogation of the full suite of standard archaeological evaluation techniques including intrusive work principally trenching.

Section 7.5.3 states that *'An indicative sampling strategy is provided below, but if archaeological remains are identified to be less extensive or less potentially significant, then this may be subject to reduction in scope following liaison with the Lincolnshire County Council Historic Environment Team.'*

Again needs corresponding statement for where archaeological remains are found to be more intensive and more potentially significant. Please include Nottinghamshire County Council as well as Lincolnshire County Council.

Section 7.6.1 states that '*An archaeological watching brief will be undertaken on specific areas of groundworks (e.g. the cable route, access roads where these require intrusive groundworks) and*

where topsoil stripping is required as part of the construction process (e.g. battery storage areas, sub-stations, water tanks, construction compounds, directional drilling access pits etc.).'

Unless a more intensive archaeological mitigation response has been identified as appropriate from the trenching results.

Neither Nottinghamshire nor Lincolnshire agree with the rescue archaeology term 'watching brief' which implies passive monitoring of earth moving equipment. Instead please use 'archaeological monitoring under archaeological control and supervision' so the archaeologist is controlling the depth of soil being moved.

Section 7.6.3 states that *'The archaeological monitoring of construction groundworks will include the following:*
• archaeological inspection of overburden / topsoil removal
• monitoring of the removal of structural remains
• inspection of subsoil for archaeological features
• excavation, recording and environmental sampling of features necessary to determine their date and character'

Not acceptable. Archaeological structural remains are significant and should be appropriately archaeologically excavated in proportion to their significance. Monitoring as mitigation of structural remains is entirely inappropriate.

Section 7.6.5 states that '*Every effort will be made to implement the archaeological watching brief without affecting the construction timetable, however, some limited suspension of groundworks in specific areas of the Scheme under investigation may be required in order to record and sample any archaeological evidence uncovered (in line with the 'Strip, Map and Sample' methodology provided in this WSI). The length of stoppage time will be determined by the nature of archaeological features or deposits identified'.*

This paragraph is an excellent illustration of why sufficient evaluation is required in advance of finalisation of scheme details, and of any work programme. Sufficient evaluation will mean that site-specific mitigation can be determined and built into the work programme and schedule, thus reducing the risk to the construction programme this paragraph implies.

Section 7.6.6 states that '*Where it can be demonstrated that survival conditions are such that archaeological potential is negligible, the Lincolnshire County Council Historic Environment Team will be informed and, where necessary, the watching brief suspended.'*

Not agreed. This paragraph demonstrates a lack of understanding on the nature of archaeology. There may be a blank area for 50 metres then a number of unexpected burials, at what point should the watching brief be suspended and what specific area be excluded and then recommenced? Please clarify.

Regarding geoarchaeological assessment (sections 3.6, 3.18, 3.29) and paleoenvironmental sampling (section 7.9) advice should be sought from Matthew Nicholas, Historic England's regional science advisor.

Section 7.11.12 states that *'Where areas of the Scheme or parts of individual sites have been shown to contain no archaeological remains following stages of archaeologically monitored top-soil*

stripping, or where specific areas of the Scheme have been fully archaeologically excavated, agreement will be sought with the Lincolnshire County Council Historic Environment Team to allow for construction groundworks to proceed in these specific areas.'

Please include Nottinghamshire County Council here and throughout the document where agreement is to be reached.

Section 7.12.1 states that *'Should unexpectedly extensive, complex or significant remains be uncovered that*
warrant, in the professional judgment of the archaeologists on site, more detailed recording or extensive excavation than is appropriate in the terms of this WSI, the scope of the WSI will be reviewed.'

This paragraph shows that the risk has not been managed appropriately at the evaluation stage as previously stated.

Regarding the figures, we have grave doubts regarding interpretation of the air photo and LIDAR features, for example Figure 4 which identifies banks as Post Medieval. Without intrusive investigation it is impossible to know the dates of these features. Some of these features do not align with Post Medieval field boundaries and some look like they may be part of Medieval settlement.

These are mitigation strategies proposed on the basis of inadequate intrusive field evaluation. If accepted they would pose an unacceptable precedent for two counties with huge potential to deliver sustainable energy demand, there is no public benefit in it being at the expense of the loss of unknown inadequately evaluated archaeology across thousands of hectares.