

By email only

Copy by email to: Andy Watts

September 11, 2020

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Dear Edward

**Outline Planning Application – reference DM/20/2877 for Crematorium and Natural Burial Ground at the Burial Ground, Turners Hill Road, Turners Hill, RH10 4PB**

I write in response to your request of 3 September for additional information in relation to the above application in respect of potential for Minerals Sterilisation of a Building Stone Minerals Safeguarding Area. Given the scale of the development proposed it is necessary to consider the viability of extraction of the minerals resource.

The following information has made reference to West Sussex County Council Minerals and Waste Safeguarding Guidance March 2020 and MPA POS Minerals Safeguarding Guidance April 2019. The guidance is clear that the mineral resource evaluation should be consistent and proportionate to the resource.

We note that in defining a mineral safeguarding area does not mean that there is a presumption that minerals will be worked. It indicates where Policy M9 will apply and is a tool to protect the resource from potential sterilisation from non-mineral development.

In order to demonstrate compliance with mineral safeguarding policies we believe we have provided sufficient information below to enable the Minerals Planning Authority and Local Planning Authority to consider the potential effect of non-exempt development in MSAs/MCAs on mineral safeguarding, and the viability of prior extraction of mineral ahead or in conjunction with the non-mineral development.

The Terragen Risk Assessment report (submitted in support of the application) provides much of the data for mineral resource assessment. Below are the extracts of the key points from the report.

**Published Geology**

The published geological survey map (1:50,000 scale, British Geological Survey, Sheet 302, Horsham, Solid and Drift Edition) for the Turners Hill area is summarised in sequence from the surface in the table below:-

<b>Strata</b>	<b>Aquifer Designation</b>	<b>Area Covered</b>	<b>Estimated Thickness</b>	<b>Age</b>	<b>Typical Description</b>
Topsoil	N/A	Whole Site	Circa 0.4m*	Recent	Brown, moist, friable, very slightly stony, sandy, clay loam with frequent fine roots.
Ardingly Sandstone	Secondary (A)	Majority Site	Circa 10 to 20m	Cretaceous	Sandstone
Lower Tunbridge Wells Sand	Secondary (A)	NE corner of the Site	Circa 20 to 30m	Cretaceous	Sandstone, siltstone and mudstone.
Grinstead Clay	Unproductive	N boundary	Circa 12 to 25m	Cretaceous	Mudstone.
Wadhurst Clay	Unproductive	Whole Site	Circa 48 to 80m	Cretaceous	Mudstone

\* Whilst the geological map does not record topsoil the assessment of topsoil is from that made during the exploratory investigation (see Section 4.2.2 of the Terragen report).

The geological map shows a fault line immediately to the N of the NW corner of the site orientated SW to NE.

### **BGS Borehole Records**

There are no BGS records within 2000m of the site. The nearest record at Worth Priory circa 2500m to the SW is not shown to be in a similar geological strata sequence to the site and records Upper Tunbridge Wells Sand (sandstone and clay) over Grinstead Clay to a depth of 29mbgl. The top of the borehole was at 158.5mAOD with a resting water level of 141.1mAOD or 17.4mbgl.

### **Site Borehole Data**

The Terragen report included data from 6 intrusive borehole samples that were used to consider the suitability of the site for natural burials and to identify the presence of contaminants. The borehole samples were extracted with a percussion rig and as such to not provide readily identifiable core samples for stone analysis but do identify the extent of overburden above the solid stone.

The bore hole data confirms the following depths below ground level (bgl) of the buried sandstone

Bore Hole 1 – Impenetrable at 2.7m bgl

Bore Hole 2 – Impenetrable at 2 m bgl

Bore Hole 3– Impenetrable at 3 m bgl

Bore Hole 4 – Impenetrable at 3 m bgl

Bore Hole 5 – Impenetrable at 3.7 m bgl

Bore Hole 6 – Impenetrable at 2 m bgl

### **Historic England / British Geological Survey Strategic Stone Study**

The Historic England / British Geological Survey strategic stone study identifies Quarry Wood Pits, South Hill Pits and Tulley Farm Pits as historic pits within 500m of the site. These are described as “*Large number of small abandoned quarries lie along the outcrop of the Ardingly Sandstone which runs through Turners Hill*”. The 1895 series OS shows small pits along the ridge. These generally would be borrow pits for local projects such as St Leonard’s Church which is identified on the strategic stone study -the results of which are attached. In addition, historic mapping (1895 series) shows numerous sand pits, and ‘old gravel pits’ close to the site. This represents the historic working of minerals which was nearly always small-scale and close to construction sites.

This is confirmed by the output of the strategic stone study which identifies only three stone buildings within proximity of the application site including the church of Saint Leonards.

### **Nature of Resource**

Confirmation by Terragen is that whilst sandstone was encountered in all the boreholes it would be anticipated to be in ‘lenses’ across the site at varying depths. No sandstone was encountered at the surface layer and a significant overburden of between 2 and 4m of topsoil was found across all the borehole locations. In this respect it is difficult to know the full extent of the resource in tonnage terms. It is advised that the sandstone layer is 10-20m in depth. From experience of other sandstone quarries the deposit is rarely uniform and a significant amount can have a high carbon content that renders the resource unusable for building stone.

In addition, the upper layers of the sandstone outcrop are normally weathered to an extent that makes them unsuitable for building stone.

### **Market Interest**

The last remaining Wealden (Ardingly) sandstone quarry is located at West Hoathly some 3.7 miles from the application site. This is operated by WT Lambs. This has a large historic quarry which has operated for over 100 years and has a large resource of 15-25 years’ supply. This quarry specialises in providing building sandstone for conservation/ heritage projects. The sandstone is extracted via drilling and use of expanding foam to release blocks of stone.

Planning approval under reference WSCC/011/13/HO granted consent for an extension to Philpots Quarry at West Hoathly to allow the continued winning and working of Wealden Sussex Sandstone. The proposal to extend the quarry over a 2.8 hectare area of agricultural and quarry storage land to the north of the existing quarry was approved in 2013. This extends the operation to 2042, unless otherwise extended by additional permissions.

The assessment of that planning application concluded that overall the proposed extension to Philpots Quarry is considered to have minimal impacts in relation to the benefits gained from the development and that it accords with the development plan and other material considerations, including the National Planning Policy Framework. Extensions to existing quarries are always preferable to the opening of new sites.

Given the remaining life of the existing planning consent at West Hoathly and quantity of the sandstone resource and the proximity of this existing venture to the application site it seems unlikely that a second quarry would be of interest immediately to this or a rival operator. Given the well-established nature of Philpots Quarry the cost of extraction here would significantly less than opening up a new site at Turners Hill. This would suggest that current demand is met as the 2013 application at West Hoathly confirmed that permission would ensure availability of Sussex Sandstone through continued stone sales from Philpots Quarry, via the existing mason’s yard, at a rate of between 1,000 and 2,000 tonnes of finished product per annum.

The attached email confirms that WT Lambs would be interested in assessing the any reserves that become available to see if they are commercially viable for any use. Given the current proposal the development is likely to expose the sandstone bedrock as it is at 3 m below ground level at the position where the foundations for the crematorium building would be dug. The foundations will not extend to that level and therefore the solid sandstone rock is very unlikely to be revealed as part of the development.

### **Need for New Building Stone Resource**

The West Sussex County Council Annual Monitoring Report states:

*“There are four active building stone extraction sites in West Sussex. There is no requirement for the Authorities to make provision for the production of building stone, however, Policy M6 of the Proposed Submission West Sussex West Sussex Joint Minerals Local Plan (January 2017) allows for proposals for the extraction of building stone to come forward subject to criteria.”*

The AMR goes on to state:

*“Three of these sites are extracting stone for building on a small scale and one site has diversified into landscaping stone. The estimated permitted reserve of building stone is 2,698,214 tonnes...”*

*“The remaining building stone reserve indicates that there is no overall need to identify new sites for sandstone production through the emerging JMLP. However, it should be noted that the permitted reserve figure may include a high proportion of material that is not suitable as a building stone product and is only used for bulk fill. One operator estimate suggests that generally only 15% of permitted reserves at quarries are viable as a building stone product. There may therefore be justification for additional permissions at individual quarries for building conservation reasons.”*

Policy M6 (Building Stone) of the West Sussex JMLP (January 2018) allows for proposals for the extraction of building stone to come forward subject to criteria set out in the policy.

### **Feasibility of extraction from the Site**

The assessment of the nearby Philpots Quarry confirms from experience in the current quarry that the nature and usability of the stone taken from the length of the sandstone face can show significant variations in a horizontal and vertical plane due to very local geological conditions. The site assessment confirmed that as the proposed development moves north eastwards the ratio of overburden to saleable material increases with the change in topography and related depth of clays overlying the sandstone.

The nature of the sandstone resource is not known in any level of detail as the borehole cores did not extract solid stone. It would not be proportionate to require further intrusive testing given the limited practical applicability of the development of a building stone quarry at this location.

### **Acceptability of extraction from the Site**

It would be inappropriate to convey quarried blocks of stone from Turners Hill to Philpots Quarry for processing due to the intrusive nature of introducing additional HGV vehicle movements in the AONB.

It would be inappropriate, even if were feasible, to extract mineral at this location given the sensitive nature of the site adjacent to the High Weald AONB and the impact associated with uncovering a viable quantity of the minerals resource. Any quarry at Turners Hill would require its own supporting infrastructure for stone processing given it is not acceptable to process it at Philpots Quarry.

Furthermore, the engineering operation required to recover the viable resource would delay implementation so as to impact delivery and would fail to meet the current overriding need for a crematorium, would render the implementation of natural burial impossible. Perhaps most importantly given that use of the site for natural burials is already consented and capable of implementation now this is material to the consideration of the viability of

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stone extraction. Any commercial extraction is incompatible with natural burial and this would be render the consented use unviable.

Given that both local and national planning policies establish that there is no particular requirement for building stone extraction which is to be maintained by the grant of further planning permissions and which could be held to justify prior extraction at the site and/or override the need for the proposed development.

I believe the above information more than satisfies the requirements for a mineral resource assessment, but should you require further information please let me know.

Yours sincerely

Lisa Jackson MA BSc MRTPI