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**THE DRUMMOND ESTATE AND INVEROCK LIMITED**

**ENDERBY WARREN SSSI REPORT**

**AUGUST 2016**

*your earth our world*



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**AUGUST 2016**

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## 1 INTRODUCTION

1.1.1 The purpose of this report is to satisfy Planning Condition 30 of Planning Application 11/0100/1/OX (related to Natural England's Representation Letter 19976, dated 16 May 2011):

*"No development shall commence within the Strategic Employment Site identified on plan:*

*Parameters Plan B: Land Use – Drawing No. PA-B Rev: B (12 January 2012)*

*Until full details of measures to protect Enderby Warren Quarry Geological Site of Special Scientific Interest during construction and after completion of the development have been submitted to and approved in writing by the District Planning Authority. The development shall be carried out and thereafter maintained in accordance with the approved details."*

1.1.2 The Strategic Employment Site (the Proposed Development) comprises approximately 84,000m<sup>2</sup> of employment uses (B1, B2 and B8).

1.1.3 Enderby Warren Quarry is a nationally important geological site, designated as a Site of Special Scientific Interest (SSSI). The quarry is one of the few locations in the UK where palygorskite can be found, and it is the only British locality where it has been proven to have been formed through the action of post-Triassic groundwater on underlying sediments.

1.1.4 However, the quarry, and any feature of geological interest at the site, is inaccessible and obscured due to being buried beneath backfill material associated with the adjacent Enderby Warren Landfill Site. The landfill is formally closed, has not been operational for a number of years, and there is no intention to carry out additional landfilling at the site.

1.1.5 The proposed land uses adjacent to the SSSI within the Proposed Development comprise Informal Open Space to the south and south east, and Employment areas to the north and north east. Land use to the west and north west of the SSSI will not be affected. The SSSI is outside of the site boundary for the Proposed Development and therefore no work will be carried out above the SSSI.

## 2 EXISTING CONDITIONS

2.1.1 The site was visited by an engineer from Wardell Armstrong LLP on 28 June 2016. The SSSI is located in the south east corner of Enderby Warren Landfill Site, however, the

site is no longer accepting waste. Currently, Infinis are producing gas from the site, as well as monitoring leachate and gas production.

2.1.2 The site visit was attended by a representative of SITA, the landfill operator, who indicated that the maximum thickness of the landfill material is between 60 and 80 metres. The landfill is formally closed but remain under an extant Environmental Permit which does not allow for the landfill to accept any further waste.

2.1.3 The photograph below shows the current condition of the site.



**Figure 1: Looking south east from the crest of Enderby Warren Landfill Site. Enderby Warren Quarry SSSI is located between the crest of the landfill and the row of trees in the centre of the photo, but is now buried beneath the landfill waste.**

### 3 ASSESSMENT

3.1.1 Natural England have stated the following in its Representation Letter:

*“Enderby Warren Quarry SSSI (geological) lies adjacent to the development site and has been identified as potentially having a significant adverse affect (sic) during the development caused by dust. Natural England would wish to see planning conditions set to ensure that no damage is caused by either dust or nitrogen (gas emissions) caused by additional landfill waste at the site located next to the SSSI.”*

3.1.2 The landfill adjacent to the site is no longer accepting waste, and the only ongoing operations at the site are the monitoring and collection of leachate and gas, using both above and below ground installations. There is no allowance made within the scheme for the use of this landfill for the deposition of waste materials arising from construction activities.

3.1.3 There are considered to be three ways that a geological conservation site could be affected by construction works or associated activities:

1. Physical damage to a designated site. This may include destruction of parts of the site, potentially through construction activities including deep piling for foundations, or indirect effects, such as increased weathering or erosion.
2. Obscuring or obstructing the geological interest features at the site. This may include effects such as dust deposition or changes in groundwater levels.
3. Restriction of access to a protected site.

**1. Physical Damage**

3.1.4 The SSSI is located beyond the boundary of the application site and is under separate private ownership. No built development is planned in close proximity to the SSSI; the closest development will comprise the spine road within the SES, located approximately 45m east of the SSSI. Bunding will also be constructed alongside the western edge of the spine road.

3.1.5 No deep piled foundations are proposed for the buildings within the application area, and given the distance between the SSSI and the proposed building footprint, there is no potential for the SSSI to be impacted upon through the construction of buildings or infrastructure within the application site. Construction activities will have no impact on the underlying geology of the SSSI through vibration or otherwise.

3.1.6 It is also proposed to construct a relief road to the north of the SSSI (subject to a separate application to the Proposed Development), connecting the spine road through to Warren Park Way. However, the route of this relief road is approximately 210m north of the SSSI at the closest point, and is separated from the SSSI by the landfill site.

3.1.7 In addition, as the SSSI is located within the landfill site, the land is fenced off and monitored to prevent access.



3.1.8 Therefore, it is not considered possible that the scheme could result in either direct or indirect physical damage to the quarry.

### ***2. Obscuring or Obstructing Geological Interest Features***

3.1.9 A Construction Environmental Management Plan (CEMP) has been agreed for the application as a whole, which includes and Air Quality Monitoring Strategy. The CEMP details the control measures that will be implemented to protect adjacent users and sites (including the SSSI) from dust deposition, or changes in groundwater levels.

3.1.10 However, as evidenced during the site visit, the SSSI and any feature of geological interest at the site is currently obscured due to being buried beneath the backfill material. There is no intention to carry out additional landfilling at the site and hence deposition of dust, or changes in groundwater level (which are not expected as a result of the scheme) would not further obstruct the geological features of interest.

3.1.11 Although it is understood that there is no intention to carry out additional landfilling at the site, if this is proposed in the future then this would be subject to a separate application and relevant conditions, legal agreements and licensing arrangements.

### ***3. Restriction of Access***

3.1.12 The SSSI is already inaccessible, and therefore the Proposed Development would not result in restricted access to a protected site. The public right of way that passes adjacent to the east of the SSSI may be closed for a period of time, however, the right of way can be accessed from the north, and once construction is complete the southern part of the public right of way will be reopened.

## **4 CONCLUSION**

4.1.1 Due to Enderby Warren Quarry SSSI being buried beneath landfill material, it is not considered feasible that any significant adverse effects could occur, namely damage to the site (directly or indirectly) or the restriction of access to the site (due to the site being currently inaccessible) as a result of the Proposed Development.

4.1.2 However, measures to further protect the SSSI are included within the CEMP that has been agreed for the application as a whole.

4.1.3 On this basis it is recommended that Planning Condition 30 be discharged.

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