Abacus Projects Limited & Deeley Freed Limited

Inglewood, Land South of White Rock

Mineral Safeguarding Assessment

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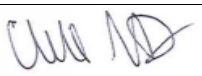
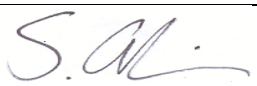
Prepared by:	Chris Muir	Signed:	
Checked by:	Stuart Austin	Signed:	
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Appendices

1.0 Introduction

1.0.1 WYG has been instructed by Abacus Projects Limited/ Deeley Freed Limited, to prepare a Mineral Safeguarding Assessment on Land South of White Rock, Goodrington, Torbay in Devon. The development site is known as 'Inglewood'.

1.0.2 An outline planning application has been submitted to Torbay Council for the 'residential led development of up to 400 dwellings (C3) together with the means of vehicular and pedestrian/cycle access together with the principle of a public house (A3/A4 use), primary school with nursery (D1), internal access roads and the provision of public open space (formal and informal) and strategic mitigation. Details of access to be determined with all other matters reserved'.

1.0.3 Devon County Council (DCC), as the neighbouring mineral planning authority, were consulted on the application and objected. DCC stated the application *'as being contrary to paragraph 144 of the NPPF, Policy M3 of the Torbay Local Plan and Policy M2 of the Devon Minerals Plan'.* The consultation response from DCC to Torbay Council stated:

> *'You may wish to advise the applicant to provide a minerals resource assessment (to consider the limestone resource on both sides of the Torbay/Devon boundary) that includes the appraisal of the site's geology and any available mineral exploration data, together with an analysis of the potential economic value of the underlying resource and the scope for its extraction'.*

1.1 Scope of the Report

1.1.1 The purpose of this report is to determine the most suitable solution in regards to mineral extraction.

1.1.2 The report is based on the review of the outline planning application documents, consultation responses, British Geological Survey (BGS) borehole scans, planning policy documents and the findings of a site walkover that took place on the 24th January 2018.

2.0 Environmental Site Setting

2.1 Location

2.1.1 The proposed development site abuts the west of the residential village of Goodrington, Torbay in Devon. The main body of the site is centred on Ordnance Survey Grid Reference (OSGR) SX881574. The site is located south of a new housing development known as White Rock.

2.2 Site Description

2.2.1 The proposed development site covers a total area of approximately 31.11 hectares (Ha) and principally comprises five agricultural fields. The fields are lined by hedgerows, trees and stone walls.

2.2.2 The A3022 (Brixham Road) abuts the eastern boundary of the site, beyond which lies the village of Goodrington. A field with new newly planted trees abuts the northern boundary of the northernmost field. Agricultural fields are located immediately west and south of the site. A small area of deciduous woodland, known as Nords, is located along part of the southern boundary.

2.2.3 White Rock Cottages are located approximately 50m north of the northernmost field. White Rock Primary School is located approximately 100m north east of the northern field and the White Rock housing development is located approximately 250m to the north.

2.2.4 The village of Galmpton is located approximately 325m to the south east and the small hamlet of Waddeton is located approximately 650m to the south west of the site. A large industrial area, which includes Torbay Business Park and Waddeton Industrial Estate, is located approximately 450m north of the site.

2.2.5 The site lies approximately 7km south-west of Torquay and approximately 30km south of Exeter.

2.2.6 The site benefits from good access to the wider road network. The A380 is accessed from Brixham Road, which forms part of Torbay's Major Road Network, north bound for 2.5km. The M5 is accessed from following the A380 and A38 north bound for approximately 45km.

2.3 Designations

Planning

2.3.1 Planning Policy Map Sheets 29 and 30 of the Torbay Local Plan 2012 to 2030, shows that the entire site lies within a designated 'Countryside Area'. The sheets also show that the northern part of the site is designated as a 'Proposed Country Park/ Countryside Access or Enhancement Scheme'.

2.3.2 Sheets 29 and 30 also show that a large section of the south west of the site is located within a Minerals Safeguarding Area (MSA).

2.3.3 The Policy Map Sheets also indicate that the administrative boundary of Torbay follows the western boundary of the site. The land to the west falls within the South Hams District for which DCC act as the Mineral Planning Authority. DCC's Interactive Minerals Planning Policies Map shows that the agricultural land immediately west of the site is within an Aggregates Mineral Consultation Area (MCA) and land to the south west is within an Aggregates MSA.

Landscape

2.3.4 The South Devon Area of Outstanding Natural Beauty (AONB) covers an area of 340sq km and its closest point is located approximately 550m south west of the site.

Ecology

2.3.5 Hi-Line Consultancy responded to the consultation for the outline application on behalf of Torbay Council and confirm that the site lies within the sustenance zone/ areas of the Berry Head Special Area of Conservation (SAC) for greater horseshoe bats, as designated by South Hams District Council.

2.3.6 Sugar Loaf Hill and Saltern Cove Local Nature Reserve and Saltern Cove Site of Special Scientific Interest (SSSI) is located approximately 1.5km to the east of the site, to the east of Goodrington.

Public Rights of Way/ Local Footpaths

2.3.7 No public rights of way or footpaths cross the site.

Archaeology and Cultural Heritage

2.3.8 Torbay's Proposal Map Sheets do not identify any Scheduled Ancient Monuments or Historic Parks and Gardens within the site, or within the proximity, and Historic England state in their consultation

response that the development proposals would not appear to impact on heritage assets such as Scheduled Monuments and listed buildings.

2.3.9 An archaeological magnetometer survey report and a cultural heritage assessment were submitted as part of the outline application. These reports present evidence of prehistoric archaeological deposits in the form of ring ditches and enclosures and also for a Saxon period farm. Torbay Council's Historic Environment response agrees with the conclusions of the cultural heritage assessment, which states;

'*In order to determine the date, character and state of preservation of potential archaeological features within the site, assessment of identified heritage assets should be undertaken through the excavation of evaluation trenches, positioned to target identified below ground features. Apparent 'blank' areas should also be tested.'*

Geology

2.3.10 The anticipated geology at the site has been inferred from a review of the British Geological Survey (BGS) Geology of Britain Viewer website.

2.3.11 BGS indicate that the central part of the site is underlain by the Saltern Cove Formation bedrock geology, which consists of mudstone and limestone. This Sedimentary Bedrock was formed approximately 359 to 383 million years ago in the Devonian Period in a local environment previously dominated by shallow lime-mud seas. BGS state these bedrocks are detrital and biogenic and generally comprise fine grained material, with coral and shell fragments, forming interbedded sequences.

2.3.12 There is a small strip of underlying bedrock at the very north of the site, which comprises Saltern Cove Formation, which only consists of limestone.

2.3.13 BGS indicate the southern part of the site is underlain by the Brixham Limestone Formation. This sedimentary bedrock was formed approximately 372 to 393 million years ago in the Devonian Period in a local environment dominated by shallow carbonate seas. BGS state these bedrocks are detrital and generally comprise carbonate material, with coral and shell fragments, which form beds and reefs.

2.3.14 BGS indicate that the site is not underlain by any superficial deposits.

Preliminary Geoenvironmental Investigation

2.3.15 A Preliminary Geoenvironmental Investigation was carried out by Clarkebond Consultants to test the engineering properties of the soils for the development. A total of 9 trial pits were drilled and have been summarised in Table 1 below.

Table 1 – Clarkebond Geoenvironmental Investigation Trial Pits

Trial Pit Record	Topsoil (m)	First Strata Encountered and Depth (m)		Second Strata Encountered and Depth (m)		Total Depth (m)	Comments
1	0.25	Saltern Cove Formation - mudstone	1.1			1.1	
2	0.1	Saltern Cove Formation - silt/ silt & clay	2.1			2.2	Limestone cobbles at 1.1 to 1.3m Limestone boulders 1.3 to 2.2m
3	0.25	Saltern Cove Formation - silt/ silt & clay	1.95			2.2	Limestone boulders 1.3 to 2.2m
4	0.2	Saltern Cove Formation - gravel/ silt/ mudstone	1.8			2	
5	0.15	Saltern Cove Formation - silt	1.45	Brixham Limestone	0.3	1.9	
6	0.2	Saltern Cove Formation - mudstone	2.5			2.7	Limestone boulders 2.5 to 2.7m
7	0.15	Saltern Cove Formation - silt	2.35			2.5	
8	0.5	Saltern Cove Formation - silt/ clay	2			2.5	Limestone cobbles and boulders 1 to 2.5m
9	0	Saltern Cove Formation - silt	0.3	Brixham Limestone	0.8	1.1	

2.3.16 Limestone was recorded at 6 of the 9 trial pits, including each trial pit within the MSA (3, 5, 8 and 9).

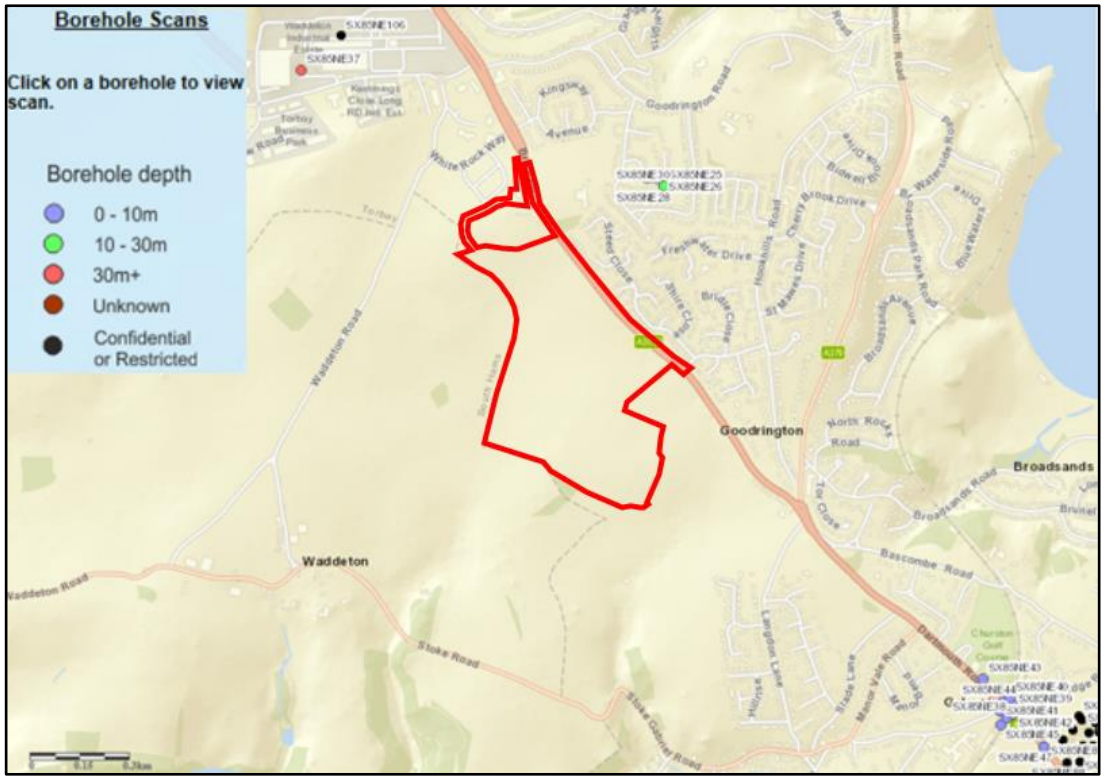
2.3.17 It is not possible to ascertain the extent of the resource that underlies the site as the trial pits are very shallow and Brixham Limestone was only encountered in 2 of the 9 trial pits.

British Geological Survey Review of Historic Borehole Logs

2.3.18 A review of the available BGS borehole records in the vicinity of the site has been undertaken. There are no existing borehole records that coincide with the proposed development site. The nearest historical borehole record to the site is located approximately 375m to the east. There are two records approximately 800m north west of the site in Waddeton Industrial Estate and there are numerous

records approximately 1.2km to the south west of the site in Galmpton. Many of these borehole records are however not publicly available.

Figure 1 – British Geological Survey Borehole Record Locations



2.3.19 The 10-30m deep borehole records, that can be seen in Figure 1 to the east of the site, comprise 9 different borehole records and are summarised in Table 2 below.

Table 2 – Historical Borehole Record Summary (SX85NE24 – SX85NE32)

Borehole Record	Topsoil (m)	First Strata Encountered and Depth (m)		Second Strata Encountered and Depth (m)		Total depth (m)	Comments
SX85NE24	0.2	Clay	3.8	Limestone	13.6	17.6	3.2m void within limestone
SX85NE25	0.2	Clay	13.6	Limestone	2	15.8	
SX85NE26	0.2	Clay	15.8	Limestone	5.2	21.2	0.6m void within limestone
SX85NE27	0.2	Erratic drilling below 20m, possible limestone, drilling equipment damaged - Inconclusive					
SX85NE28	0.2	Clay	9.8	No returns - drill rate consistent with limestone	16	26	
SX85NE29	0.1	Clay	1.1	Slate	4.6	5.8	
SX85NE30	0.2	Clay	14.6	No returns but due to damage to drill presumed limestone	2.5	26	14.8 and 23.5m void within limestone
SX85NE31	0.2	Clay	2.8	Limestone	2.8	5.8	
SX85NE32	0.2	Clay	2.5	Limestone	3.1	5.8	

2.3.20 The available borehole record to the north of the site, SX85NE37 was drilled to a depth of 106.68m and shows that limestone was encountered at a depth of 15m and continued to the end of the borehole.

2.3.21 The available borehole record to the south east of the site are summarised in Table 3.

Table 3 – Historical Borehole Record Summary (SX85NE38 – SX85NE46)

Borehole Record	Topsoil (m)	First Strata Encountered and Depth (m)		Second Strata Encountered and Depth (m)		Total depth (m)
SX85NE38	0	Made Ground (0.75) Gravel/clay (0.75)	1.5	Limestone	8.25	9.5
SX85NE39	0	Made Ground	0.75	Limestone	2.25	3
SX85NE40	0	Clay	0.3	Limestone	2.7	3
SX85NE41	0	Made Ground (0.6) Clay (4.05)	4.65	Limestone	3.35	8
SX85NE42	0	Made Ground (0.3) Clay (6.4)	6.7	Limestone	1.8	8.5
SX85NE43	0	Limestone	0.95	-		0.95
SX85NE44	0	Topsoil and limestone gravel		Limestone	0.25	1.25
SX85NE45	0	Limestone gravel	0.4	Clay	0.7	1.1
SX85NE46	0	Clay	1.25	Limestone	0.25	1.5

Borehole Record Summary

2.3.22 Limestone was recorded in all of the historical borehole records, with the exception of SX85NE29.

Previous Mineral Working

2.3.23 It is understood that previous mineral working has taken place to the south of site in Waddeton and Galmpton.

Water Environment

Groundwater

2.3.24 The hydrogeology of the site area is published by the Environment Agency (EA) on their website. This classifies the Saltern Cove Formation (Limestone and Mudstone) as a Secondary A Aquifer. The EA state that these aquifers are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.

2.3.25 The EA website classifies the Brixham Limestone Formation as a Principal Aquifer. The EA state that these aquifers are layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer. The Saltern Cove Formation (Limestone), which underlies a small strip at the north of the site is also classified as a Principal Aquifer.

2.3.26 With reference to the EA website the site is not located in a groundwater source protection zone.

Surface Water

2.3.27 The Environment Agency website shows the site lies entirely within Flood Zone 1.

2.3.28 A small pond is located in the east of the site.

2.3.29 The River Dart is located approximately 1km south west of the site and the site is located approximately 1.2km inland from the coastline in Torbay.

Utilities

2.3.30 An overhead transmission line crosses the south-western corner of the site. There are 4 pylons within the south west of the site/ on the site boundary and are all located within the MSA. It is noted in the site Masterplan that the transmission line is factored in to the proposed completed development.

Figure 2 – Photograph of transmission line and Nords wood (taken north of pylon on boundary between southern fields)

2.3.31 There are also transmission lines, which run along the eastern site boundary on Brixham Road.

2.3.32 The consultation response from Wales and West Utilities identifies the presence of an intermediate pressure gas pipeline along the eastern boundary of the site.

2.3.33 Cadent Gas Ltd.'s (Cadent) consultation response confirms that Cadent and National Grid do not have any assets within the application boundary.

2.3.34 Southern Water's consultation response states their *'current sewerage records do not show any public sewers crossing the site.'*

3.0 Minerals Safeguarding Planning Policy

3.0.1 The safeguarding of non-renewable resources, such as minerals, is a key aspect of sustainable development. Paragraph 143 of the National Planning Policy Framework (NPPF) obliges Mineral Planning Authorities (MPA) to define MSAs when preparing local plans.

3.0.2 MSAs are produced to define known locations of specific mineral resources of local or national importance and to ensure these resources are not needlessly sterilised by non-mineral development, though MSAs carry no presumption that the resource will be worked.

3.0.3 The development site is located within the administrative boundary of Torbay Council (TC) and as a unitary authority TC also act as the mineral planning authority. The western boundary of the site follows the administrative boundary of TC and Devon County Council (DCC). As such, DCCs mineral planning policies and guidance documents are also material considerations in this assessment.

3.1 Torbay Local Plan

3.1.1 TC's Local Plan (TLP) was adopted in December 2015 and covers the period to 2030. The TLP includes **Policy M3: Preserving and safeguarding of limestone resources and key local building stone** which states: -

'The Council will seek to safeguard important mineral resources and sites. The use of local building stone in new development and for restoration purposes (particularly of heritage assets) will be encouraged. The redevelopment of buildings constructed in the local stone should ensure the re-use or salvage of such material.

Any proposal on or in the vicinity of an important mineral resource, including a Mineral Safeguarding Area, should demonstrate that it will not cause unnecessary sterilisation or prejudice the future extraction of important minerals or building stone on these sites.'

3.2 Devon Minerals Plan

3.2.1 DCC's Minerals Plan (DMP) was adopted in February 2017 and covers the period to 2033. The DMP includes **Policy M2: Minerals Safeguarding Areas** which states: -

'Mineral resources and infrastructure within the Mineral Safeguarding Areas defined on the Policies Map will be protected from sterilisation or constraint by non-mineral development within or close to those Areas by permitting such development if:

(a) it can be demonstrated through a Mineral Resource Assessment and in consultation with the relevant mineral operators that the mineral resource or infrastructure concerned is not of current or potential economic or heritage value; or

(b) the mineral resource can be extracted satisfactorily prior to the non-mineral development taking place under the provisions of Policy M3; or

(c) the non-mineral development is of a temporary nature and can be completed and the site restored to a condition that does not inhibit extraction or operation within the timescale that the mineral resource or infrastructure is likely to be needed; or

(d) there is an overriding strategic need for the non-mineral development; or

(e) it constitutes exempt development, as set out in the exemption criteria.'

3.2.2 DCC has prepared a guidance document: 'Part 2: Mineral Safeguarding: Supplementary Planning Document' (SPD), which explains how MSAs are defined and how decisions on development affecting them should be made.

3.2.3 With regards to Minerals Resource Assessments, the guidance states;

'Where non-mineral development is being proposed within or close to a Mineral Safeguarding Area and reliance is being placed on criterion (a) of Policy M2 to justify that development, the onus is placed on the applicant to demonstrate that the mineral resource or infrastructure is not of current or potential economic or heritage value. The mechanism for evidencing this is a Mineral Resource Assessment, which will be the responsibility of the applicant to commission and submit with his/her planning application.

While the scope and level of detail for a Mineral Resource Assessment will be influenced by the specific characteristics of a location and its geology, the key requirements are that it is prepared by a suitably qualified person and includes:

- *an appraisal of the geology of the site and its surroundings and current or previous mineral working and extant mineral planning permissions;*
- *evaluation of available mineral exploration data;*
- *evaluation of the extent of current extraction in Devon or the wider area of the mineral resource underlying the site and its continued supply in the foreseeable future;*

• the scope for prior extraction of the resource in advance of non-mineral development; and

• assessment of the current and future economic and/or heritage value of the mineral resource, based on the above information, and its relative value in comparison with the proposed non-mineral development in order to inform the local planning authority prior to it determining the application.

For many development proposals, a desk-based assessment using available evidence may prove to be sufficient. However, in some circumstances, particularly for Devon's resources of national or county importance, it may be necessary for physical site investigation such as boreholes or trial pits to be undertaken on behalf of the applicant.'

3.2.4 Paragraph 3.2.2 of the SPD document shows that MCAs are drawn wider than MSAs to ensure that effects of development that may constrain mineral working are properly considered. The distance that MCAs are drawn from MSAs varies from 100m to 500m depending on the importance and the method of working of the resource. Table 3.1, on page 9 of the SPD document, shows that a MCA buffer of 500m from the MSA should be used for limestone, which reflects the method of working and/ or the importance of the mineral.

3.2.5 In terms of prior extraction paragraph 5.2.8 of the SPD document states: *'Prior extraction will not be a realistic option in all cases, particularly for mineral resources of considerable depth such as limestone...'*

3.2.6 The SPD guidance requires minerals resource assessment to consider the importance of the proposed non-mineral development. Appendix A of TCs Strategic Housing Land Availability Assessment (SHLAA) 2013 includes the map of SHLAA sites in Paignton. The development site is included in the map as a greenfield site potentially suitable for housing development, reference T756b. Table 12 of the TLP shows a target of 650 houses to be sourced from SHLAA sites over the plan period in Paignton.

3.2.7 The TLP shows that 8,900 homes are required over the course of the plan period to 2030 and Table 3, on Page 90 of the TLP, shows that only 9,035, a slight excess, have been provisioned for in total, including the 650 SHLAA sites in Paignton.

3.3 Supply of Mineral

3.3.1 The TLP also includes **Policy M1: Minerals Extraction**. This policy states: *'mineral extraction will be subject to the following criteria: 1. The need for the mineral, taking into account of aggregate*

landbanks for Devon.'

3.3.2 The 6th Devon Local Aggregate Assessment 2007 – 2016 (LAA) was published in July 2017. The purpose of the LAA is to *'provide a rolling evidence base to inform the approach to be taken in the Local Plans of the individual MPAS to the supply of aggregates'.* The LAA contributes to the evidence base for each of the MPAs within Devon, including Torbay.

3.3.3 A table immediately below paragraph 2.3.1 in the LAA shows that the 4 limestone quarries in Devon have a limestone reserve of 74.805 million tonnes. The National Planning Policy Framework (NPPF) seeks the maintenance of landbanks of land-won aggregates of at least 10 years for crushed rock. Paragraph 2.3.2 of the LAA shows that the current crushed rock landbank in Devon is 48.2 years.

3.3.4 Paragraph 2.4.1 of the LAA states that the *'crushed rock landbank is well in excess not only of the ten year minimum required by the NPPF, but also the time horizons of the adopted or emerging Minerals/ Local Plan of the Devon MPAs.*' A table immediately below paragraph 2.4.1 shows that the landbank for limestone, based on average sales over the last 10 years, is 38.5 years.

3.3.5 It is also noted that a planning application to vertically and laterally extend Linhay Hill Quarry, 1 of Devon's 4 limestone quarries, is currently being considered by Dartmoor National Park.

3.3.6 **DMP Policy M11: 'Steady and Adequate Supply of Land-won Aggregates'** states that …'the extension of a new quarry will be preferred to the establishment of a new quarry…'

3.4 Analysis

3.4.1 This section has identified that there is a clear framework of planning policy in respect of minerals safeguarding. This policy is designed to ensure that valuable mineral resources are not unnecessarily sterilised, and that where non-mineral development is permitted that due consideration is given to ensuring that appropriate investigations are undertaken to establish if any viable mineral deposits can be recovered as part of the development process. As incidental extraction is not considered suitable for the working of limestone the recovery of any proven resource would be via a full or part prior extraction.

3.4.2 The policy is also flexible in allowing effective sterilisation where the merits of the development outweigh safeguarding (for example if there is an overriding need for quick delivery of the proposed development that would be compromised by any delay to facilitate mineral extraction in full or in

part).

4.0 Constraints to Mineral Extraction

4.1.1 The environmental setting of the site, as described in this section 2, has the potential to constrain the physical extraction of the underlying mineral resource.

4.1.2 **TLP Policy M1** states that mineral extraction will be subject to the following criteria;

'Impact on the surface water flow regime and groundwater sources; compatibility with surrounding land uses, including historic character and landscapes, and in particular protected landscapes such as AONB; proximity to local communities… there are no unacceptable impacts on human health, noise-sensitive properties…

4.1.3 Mineral resources such as limestone extend to a considerable depth and the working of such resources can include methods such as blasting. Deep extraction of such minerals can impact on hydrological and hydrogeological water flows and would coincide with groundwater deposits.

4.1.4 In addition, although quarrying operations are subject to stringent controls in respect of issues such as noise generation and dust management, it would be expected that appropriate buffer zones would be maintained between mineral working and existing built development and ecologically sensitive areas.

4.1.5 Paragraph 18 of The Minerals National Planning Practice Guidance (NPPG) states that *'any proposed separation distance should be established on a site-specific basis...'* To use as guidance for an appropriate separation distance, the Minerals Planning Policy for Wales, Minerals Technical Advice note 1: Aggregates, states that a minimum buffer zone for hard rock quarries should be 200m.

4.1.6 DCC's Mineral Safeguarding SPD shows that MCAs are drawn 500m from MSAs for limestone and the distance is dependent on the importance and the method of working of the resource.

4.1.7 Information on the buffer zones used at the existing limestone quarries in Devon is not readily available. However, limestone is the underlying bedrock in parts of Cardiff, and Cardiff Council show in their Local Development Plan 2006 – 2026 (adopted January 2016) that the buffer zones at their limestone quarries ranges between 225m and 468m.

4.1.8 Based on the above information it is therefore reasonable to assume, that an appropriate buffer zone for a limestone quarry would be between 200m and 500m. The exact extent of the buffer zone would be subject to various technical assessments such as ecology, groundwater, flooding, landscape, noise and air quality.

4.1.9 As noted above, the minerals NPPG states that separation distances should be established on a site by site basis. Paragraph 18 of the guidance continues to state (buffer zones) '*should take into account:*

- *the nature of the mineral extraction activity;*
- *the need to avoid undue sterilisation of mineral resources,*
- *location and topography;*
- *the characteristics of the various environmental effects likely to arise; and*
- *the various mitigation measures that can be applied.'*

4.1.10 The mineral extraction activities could involve techniques such as blasting, although this would depend on whether the stone needed to broken up prior to its extraction. Techniques such as blasting can cause noise, vibration and dust emissions. In regards to need, and as explained in the previous section, there is a large permitted resource of limestone in Devon. In regards to location the site is located immediately west of the residential village of Goodrington. White Rock School and White Rock Cottages are also located in close proximity of the site.

4.1.11 It is therefore reasonable to assume that an appropriate buffer zone for this site, from all receptors classed as sensitive, such as schools and houses, would be towards the upper end of the 200m – 500m range. For the purposes of this report, and for calculating a potential surface area for mineral extraction, a best-case scenario buffer of 200m and a worst-case scenario buffer of 500m have been applied to a Minerals Safeguarding and Constraints Plan, which is included at Appendix A of this assessment.

4.1.12 The MSA has also been plotted on the plan as well as other existing physical and environmental features that could further constrain the workable area.

4.1.13 The transmissions line that crosses the south west of the site would constrain any mineral extraction unless it can be rerouted. It is also likely that a buffer would be required from Nords woodland and around the tree lined perimeter of the site to protect the trees. Any extraction within the water table would likely require de-watering activities which could, for example, give rise to hydrological and

ecological considerations. Consent would also be required from the Environment Agency (EA) to allow for the water collected from the pumping exercise to be discharged into the local watercourses.

4.1.14 A gas pipeline and a transmission line also extend along the eastern boundary of the site, but any buffer to protect these utilities would be consumed by the buffer in place from the housing in Goodrington.

4.1.15 Paragraph 8.4.6 of the Devon Minerals Plan states that *'The excavation of minerals and the built structures of the processing plants have the potential to have a landscape and a visual impact… Mineral operations, including processing, lighting and transporting minerals, also have the potential to impact on the visual quality, tranquillity, inherently dark landscapes, rural lanes and sensitive receptors.'*

4.1.16 The site is also located approximately 550m from the South Devon AONB and there have been numerous consultation responses from the outline planning application, including those from South Hams District Council/ West Devon Borough Council and South Devon AONB who have objected on concerns to the impact on the South Devon AONB.

4.1.17 The development proposals incorporate the protection of trees within the site boundary. Any mineral extraction could also be constrained by the retention of higher grade trees.

5.0 Summary and Conclusions

5.0.1 The review of available borehole records and the preliminary site investigation works suggest it is likely that the site is underlain by a limestone resource, especially that part of the site that coincides with the MSA. Further site investigations work would however be required to determine the extent of the underlying resource.

5.0.2 The site is located within close proximity to existing built development, notably the houses immediately east of the site in Goodrington and White Rock Cottages to the north of the site, and due to the methods of working limestone a buffer zone is required between these sensitive receptors and any area where limestone would be worked.

5.0.3 DCCs Minerals Safeguarding SPD requires a Minerals Resource Assessment to include the information shown in the bullet points below. The comments below each bullet point show how and where in the report the required information has been provided.

• an appraisal of the geology of the site and its surroundings and current or previous mineral working and extant mineral planning permissions;

• evaluation of available mineral exploration data.

5.0.4 Section 2 of the assessment looked at available BGS and site investigation data and identified that limestone resources are present on and in the vicinity of the site.

• evaluation of the extent of current extraction in Devon or the wider area of the mineral resource underlying the site and its continued supply in the foreseeable future.

5.0.5 Section 3 of the assessment demonstrated that there are large reserves (38.5 years) of limestone in the permitted sites in Devon. There is also an application under consideration for the extension to Linhay Hill Quarry, which is preferable to the establishment of a new quarry (Policy M11).

• the scope for prior extraction of the resource in advance of non-mineral development.

5.0.6 Given the workable area of the site once a suitable buffer zone has been applied, it is not considered likely that there would be any scope to extract the underlying resource. It is however considered that if it is necessary to dig into the limestone resource for the purpose of the development, then an attempt should be made to recover any resource that is extracted.

• assessment of the current and future economic and/or heritage value of the mineral resource, based on the above information, and its relative value in comparison with the proposed non-mineral development in order to inform the local planning authority prior to it determining the application.

5.0.7 Section 3 shows that 8,900 homes are required over the course of the Torbay Local Plan period to 2030 and Table 3, on Page 90 of the TLP, shows that only 9,035, a slight excess, have been provisioned for in total, including the 650 SHLAA sites in Paignton.

5.0.8 In comparison, there is no apparent need for the limestone reserves. There are currently 38.5 years of permitted limestone reserves in Devon, which could delay any non-mineral development at the site by the same amount of time. Beyond the permitted reserves, the DMP Policies Map also shows there are extensive areas of land that are safeguarded for aggregates across the county.

5.0.9 The Minerals Safeguarding and Constraints Plan shows how a 200m and a 500m would constrain any mineral development. A 500m buffer would leave a workable area of approximately 12,700m$^{2.}$ Although a 500m buffer is a worst-case scenario, it is considered that a buffer in excess of the minimum 200m would be required on account of the sites location. The total site area within the MSA is 166,000m^2 and it is considered that limestone extraction in much of this area would be constrained. By way of comparison the proposed extension area at Linhay Hill Quarry is 210,000m$^{2.}$

5.0.10 It is considered that once a buffer distance has been applied, the workable area of the quarry is unlikely to have any commercial interest. The additional cost of setting up the necessary site infrastructure required at a new quarry would also need to be considered, especially when this infrastructure is already in place at existing sites.

5.0.11 DMP **Policy M2: Minerals Safeguarding Areas** states: -

'Mineral resources and infrastructure within the Mineral Safeguarding Areas defined on the Policies Map will be protected from sterilisation or constraint by non-mineral development within or close to those Areas by permitting such development if …

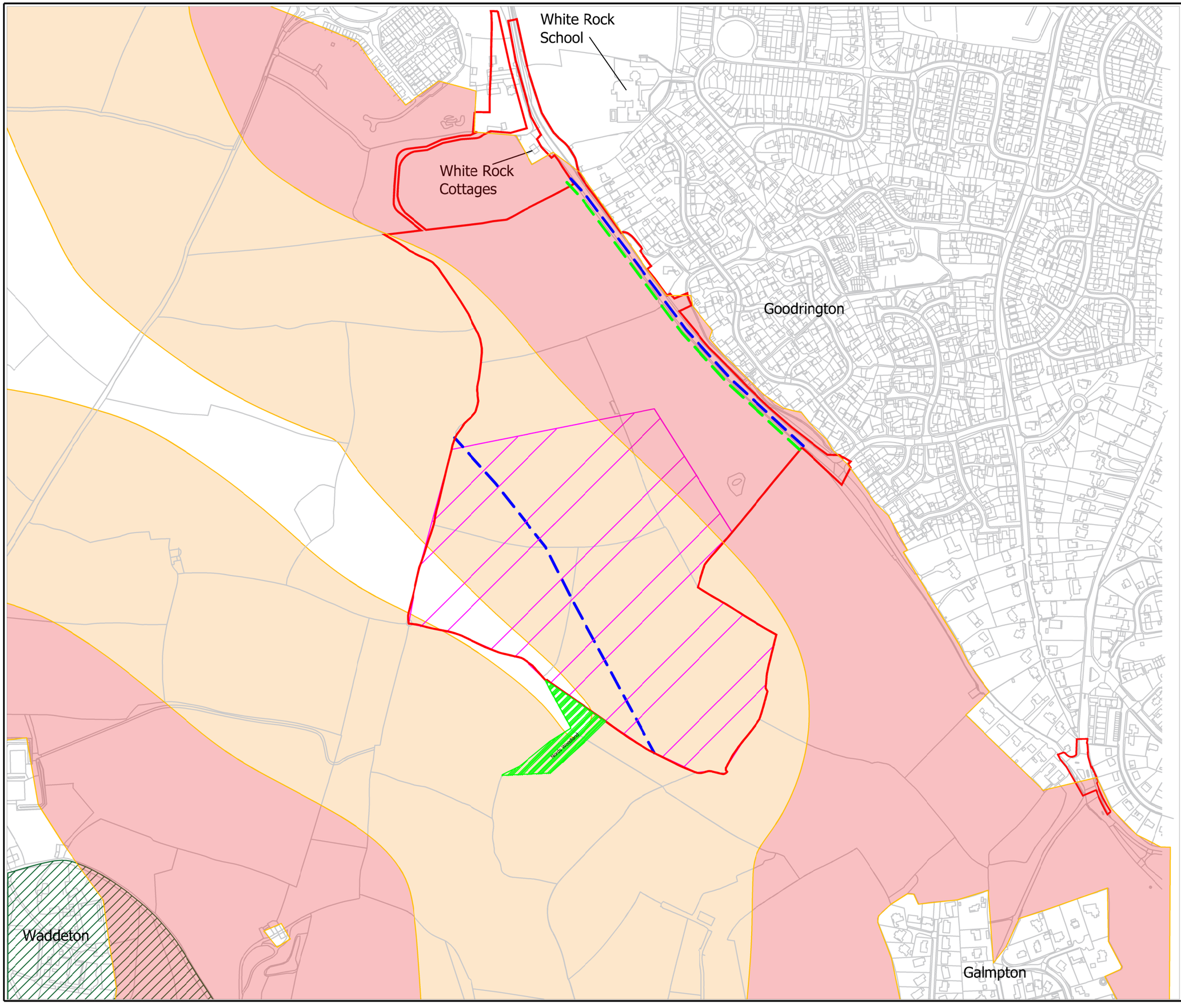
(b) the mineral resource can be extracted satisfactorily prior to the non-mineral development taking place under the provisions of Policy M3; or…

(d) there is an overriding strategic need for the non-mineral development; or

5.0.12 It is not considered likely that the mineral resource can be satisfactorily extracted given the proximity of the sensitive receptors, the potential impact on the AONB and the size of the workable area once

a suitable buffer zone has been applied (b). It is considered that there is a greater strategic need to develop the site for housing than to extract the limestone resource (d).

Appendix A – Minerals Safeguarding and Constraints Plan



DO NOT SCALE: CONTRACTOR TO CHECK ALL DIMENSIONS AND REPORT ANY OMISSIONS OR ERRORS

Key

- Application Boundary
- Gas Pipeline
- Transmission Line
- Minerals Safeguarding Area Within Site Boundary
- 200m (red) and 500m (orange) Buffer Zone from Sensitive Receptors
- Nords Woodland
- Area of Outstanding Natural Beauty

REV	DESCRIPTION	BY	CHK	APP	DATE

Deely Freed Estates

Deely Freed

7 Whiteladies Road

Clifton, Bristol

deeleyfreed

GENEVA BUILDING
LAKE VIEW DRIVE
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Minerals Safeguarding Assessment

Drawing Title:

Mineral Safeguarding and Constraints Plan

Scale @ A3	Drawn	Date	Checked	Date	Approved	Date
1:5000	AE	1.2.18	CM	1.2.18		

Project No.	Office	Type	Drawing No.	Revision
A107327	8146	W&MR	A107327-MSA-01	