Site Assessment of PK19 - Broadmead



Site Assessment of PK19 – Broadmead

### Site Information

Site Location	Broadmead Field, south of the B3069 and north of the C135 Grid Reference SY 984 785
District/Borough	Purbeck District Council
Parish/Town Council	Worth Matravers CP
Site Nominee/Owner Landownership issues? Any Mineral Operator interest	National Trust. No known issues.
Agent	Land & Mineral Management
Mineral Planning History Is the site an extension to existing site? Has it been considered for minerals development in the past? Partly worked?	There is a quarry within the overall allocation, and a restored quarry adjacent, to the east. It is likely that the site has been worked historically.
Legal or time-related constraints	None known.
Access to markets?	As for current workings within/around the site.
Is there geological evidence of the presence and viability of the mineral?	Workings adjacent to and within the site will provide information.
Development proposed	It is proposed that Home Field, as shown on the map above, is allocated in the Draft Mineral Sites Plan as land suitable for Purbeck stone extraction. There is currently one quarry within the proposed allocation site. If required during the Plan period, a replacement quarry for one of the 5 existing quarry operations on National Trust landholdings could be located within Home Field. Development of such a quarry would be subject to applying for and receiving planning permission. No new service areas are proposed. The current proposal establishes the principle of Purbeck stone quarrying in the field - no specific quarrying is proposed at this time. Estimated reserve within the overall Home Field area is approximately 380,000 tonnes. Under National Trust approach to Purbeck stone working within the area, a 1 ha site could be worked at the rate of 2,000 tpa, giving an expected life of operation <b>of an individual 1ha site of</b> 20 years. Following working, it is expected that the quarried land would be restored to low impact grassland, which could be used as grazing land.
Description of Site	The site is approximately 9.5 ha in area. The existing land use is agricultural land Grade 3b-4
Summary of Site Designations/Constraints	The site is adjacent to the Broadmead Field SNCI. Site is within Dorset AONB and Purbeck Heritage Coast.
Relevant Local Planning Policy	<b>Planning Purbeck's Future – Purbeck Local Plan Part 1 – Adopted November 2012</b> Policy LHH – Area of Outstanding Natural Beauty Policy LHH - Purbeck Heritage Coast
Residential properties and other land uses in the vicinity of the site	Closest residential property approximately 50m to the north; other properties within 250+m. Former quarrying areas to the east of the site; other quarrying in the vicinity and Purbeck stone service areas to the south. SNCI site adjacent and to the south/west.
Traffic Generation & Access Considerations	Stone will be transported via the highway to an existing service areas for processing, and then on to the B3069 for transport to market. The distance to market and vehicle movements are market dependent and therefore variable. No overall intensification of development of the National Trust quarry working is proposed, so if a

Site Assessment of PK19 - Broadmead

## Appraisal of Site – Using Site Assessment Criteria as set out in The Bournemouth, Dorset and Poole Minerals Strategy 2014

In Appendix 1 (p. 242) of the Minerals Strategy a methodology for assessing sites nominated or identified for consideration as future quarry sites is set out. Each site is assessed against 25 criteria, C1 to C25, reflecting the potential environmental, economic and social impacts/benefits of its development. Assessment is qualitative, and each criterion is given a score as a colour, representing its expected impact, with or without mitigation. These criteria and their responses are set out below, along with further comments from relevant consultees.

<u>opic: Biodiversity.</u> A Objective: To maintain, conserve and enhance biodiversity.	
Criterion C1 - Impact on European/international designations.	D
No comment	
Dorset County Council 7Nov13	
Criterion C2 - Impact on areas used by Annex 1 bird species.	D
No comment	
Dorset County Council 7Nov13	
Criterion C3 - Impact on national designations.	D
No comment	
Dorset County Council 7Nov13	
Criterion C4 - Impact on protected species.	В
Greater Horseshoe Bat has been recorded from the area immediately adjacent to this site. Without further investigation the impli quarrying on this rare species are not known, although it is likely that appropriate mitigation could be put in place if necessary. Dorset County Council 7Nov13	cations of
Criterion C5 - Impact on local recognitions/designations, including ancient woodland and veteran trees.	D
The site boundary includes all of Broadmead Field SNCI (designated 3/7/14), a local wildlife site declared for species rich neutral g Impacts could be mitigated by re-drawing the site boundary to exclude this or by other mitigation identified at the planning app	-
Dorset County Council 02.07.15	
<b>Possible Mitigation</b> : An Environmental Impact Assessment will be carried out as part of any planning application, including detailed assessment of po biodiversity impacts and appropriate responses and mitigation. Appropriate mitigation of any impacts will be required as part of permission granted. No further action considered necessary at this stage.	

## **Topic: Geodiversity**

SA Objective: To maintain, conserve and enhance geodiversity.

Criterion C6 - Impact on geodiversity.

The Purbeck limestone group has an important association with the geology of the Jurassic Coast World Heritage Site. Working quarries in Purbeck have been known to yield important fossils, including dinosaur footprints. They are also of ongoing interest for the study of early Cretaceous stratigraphy. These interests should be acknowledged with the assumption that geologists and the Jurassic Coast Team hosted by DCC will respond positively to any opportunities to recover fossils or record and study unusual features if they are discovered. In terms of geodiversity there is a presumption in favour of an appropriate level of quarrying activity continuing in order to sustain these ongoing

interests.

Dorset County Council 6.11.2013

**Possible Mitigation**:

None specifically required.

#### **Topic: Landscape**

SA Objective: To maintain, conserve and enhance the landscape, including townscape, seascape and the coast.

Criterion C7 – Impact on designated landscapes.	
Less significant adverse impact	
Dorset County Council 23 October 2013	

Page **3** of **10** 

D

Site Assessment of PK19 - Broadmead

## С Criterion C8 – What is landscape capacity to accommodate proposed development. In the zone of least landscape and visual impact so it will be how the area is worked which will determine its capacity. Small areas, quantities, progressive restoration and in short campaigns with low stockpiles is recommended. Dorset County Council 23 October 2013 Criterion C9 – Impact on historic landscapes. D

The local landscape bears the imprint of previous quarrying dating from the Roman period onwards. It could be argued that the present site would be a continuation of the process, and if the site is to be restored afterwards the impact would be limited in time anyway.

Dorset County Council 4/11/2013

#### **Possible Mitigation**:

An Environmental Impact Assessment will be carried out as part of any planning application, including detailed assessment on the landscape impacts resulting from extracting mineral from this site, and identifying appropriate mitigation. No further action considered necessary at this stage.

### **Topic: Cultural Heritage**

SA Objective: To maintain, conserve and enhance the historic environment (including conservation areas, historic parks and gardens and other locally distinctive features and their settings).

#### Criterion C10 – Impact on historic buildings.

Listed building adjacent to site proposal, further assessment will be required to determine potential impacts.

Dorset County Council 12 November 2013

### Criterion C11 – Impact on archaeology.

There are various archaeological sites in the area, most notably an Iron Age and Roman period settlement and shale-working site just to the north-west. There is also potential for industrial archaeological evidence of early quarrying. Archaeological assessment and evaluation would be required before an informed planning decision could be made. Only when these have been undertaken would the archaeological impact be understood – at present it could be anywhere from category A to category D.

Dorset County Council 4/11/2013

### **Possible Mitigation:**

Full assessment, including Environmental Impact Assessment, will be carried out as part of any planning application. This will include assessment of heritage impacts and identification of appropriate mitigation.

It is considered that the Development Management policies of the Minerals Strategy, especially Policy DM 7, together with the policy stance of the National Planning Policy Framework, provide adequate protection to any archaeology that may be found during development.

No further action considered necessary at this stage.

#### **Topic: Water**

SA Objective: To maintain, conserve and enhance the quality of ground, surface and sea waters and manage the consumption of water in a sustainable way.

#### Criterion C12 -Impact on hydrogeology or groundwater.

Site underlain by secondary aquifer. Not within or adjacent to any Source Protection Zones. Not known if any licensed water abstraction points in the vicinity.

Dorset County Council 4 November 2013

No surface water within 500m of site boundary.

Dorset County Council 4 November 2013

Criterion C14 - Impact on flooding or coastal stability.

Site is entirely within Flood Risk Zone 1. No risk of coastal instability.

Dorset County Council 4 November 2013

С

D

D

В

D

→

A

Site Assessment of PK19 - Broadmead

#### **Possible Mitigation**:

Hydrological assessment is normally required as part of any planning application, with measures to protect groundwater and surface water flows to be identified and implemented.

No further action considered necessary at this stage.

#### **Topic: Soil**

SA Objective: To maintain, conserve and enhance soil quality

Criterion C15 - Impact on existing soils or land type (including BMV land).

Site is good to moderate quality agricultural land. Any soil removed will be protected during working and can be used to restore the land.

Dorset County Council 4 November 2013.

#### **Possible Mitigation**:

Soils will be protected during working, according to guidance and best practice.

#### Topic: Air Quality

SA Objective: To protect and improve air quality and reduce the impacts of noise

## Criterion C16 – Impact on AQMAs.

No direct impact on any AQMAs.

Dorset County Council 4 November 2013

#### **Possible Mitigation**:

Noise mitigation will be addressed at the planning application stage, with appropriate mitigation to be included in the development of the site.

#### **Topic: Material Assets (Economic development)**

SA Objectives: To conserve and safeguard mineral resources.

To promote the use of alternative materials

To encourage sustainable economic growth

To provide an adequate supply of minerals to meet society's needs.

#### **Criterion C17** - Impact on economic development.

D

С

D

The site is expected to have a positive impact on the provision of mineral and can therefore be expected to benefit the local and wider economy, in addition to creating direct employment during the working of the site.

Mineral working has the potential to negatively affect businesses in the locality, e.g. through contributing to traffic congestion, noise, visual and perception related issues. Impacts will be identified as part of any planning application and mitigation during working will be applied where necessary – e.g. further screening.

Restoration to agriculture will maintain an on-going positive benefit.

Dorset County Council 4 November 2013

### **Possible Mitigation**:

An Environmental Impact Assessment will be carried out as part of any planning application, identifying potential impacts and appropriate responses and mitigation. Appropriate mitigation will be required as part of any planning permission granted. No further action considered necessary at this stage.

### Topic: Social Considerations - Human Health and Amenity, Airport Safety and Cumulative Impacts

SA Objectives: To sustain the health and quality of life of the population

#### **Criterion C18 - Impact on Sensitive Human Receptors.**

Residential properties adjacent, within 250m and 500m. Context is small quarries in an area with a long history of Purbeck Stone quarrying. Nation Trust will control rate of quarrying. Only small areas within the overall field will be quarried – exact sites not known yet. Appropriate screening to be determined.

Dorset County Council 4 November 2013

С

Site Assessment of PK19 - Broadmead

Criterion C19 - Impact on existing settlements.	В	С
Acton approximately 250m to east; Langton Matravers within 750m further east. Sites will be relatively low impact the east. With appropriate screening, visual impacts would be further reduced. Dorset County Council 4 November 2013	ct. Limited visib	ility towards
Possible Mitigation:		
An Environmental Impact Assessment, including a Transport Assessment, will be carried out as part of any planning	ng application,	identifying

potential impacts and appropriate responses and mitigation.

Appropriate mitigation (e.g. visual and noise attenuation bunds and reducing noise at source where possible and appropriate) will be identified and required as part of any development of the site. No further action considered necessary at this stage.

**Criterion C20 - Impact on airport safety** 

Site is approximately 23km from airport and not proposed for wet working or restoration.

Dorset County Council 4 November 2013

### Criterion C21 - Effects on cumulative impacts.

Site nomination comprises a new proposal in an area where there is a high concentration and long history of mineral extraction.

It is potentially within 5Km from a town (Swanage) where allocations for the development of 200 dwellings, employment and retail facilities have been made in the Purbeck Local Plan Part 1 (adopted Nov 2012) (Policy SE) and the Swanage Local Plan (Policy SS). Traffic arising from the new residential development will add to general traffic levels in / around Swanage and on the A351.

This is within a popular tourist area, leading to higher levels of traffic on the roads in summer. The fact that development within this proposed nomination is likely to be a replacement for a quarry closed or closing, with no proposed intensification expected, reduces potential for cumulative impacts.

Dorset County Council 4 November 2013 11.11.2013.

#### **Topic: Social Considerations – Carbon Emissions**

SA Objectives: To adapt to and mitigate the impacts of climate change

#### **Criterion C22 - Impact on carbon emissions**

Site will rely on road transport.

Dorset County Council 4 November 2013

#### **Possible Mitigation**:

Guidance and best practice will be followed, to minimise carbon emissions as far as is practicable.

#### **Topic: Social Considerations**

SA Objectives: To enable safe access to countryside and open spaces

#### Criterion C23 – Impact on recreational land

Site is agricultural land, not use for formal/informal recreational purposes.

Dorset County Council 4 November 2013

D

В

D

В

Statutory right of way crosses the field that has been nominated. Since whole field will not be worked, statutory right of way probably will not need to be diverted. Appropriate screening may be required.

Dorset County Council 4 November 2013

### **Possible Mitigation**:

Further assessment will be undertaken at planning application stage with appropriate mitigation identified if necessary/appropriate. No further action required at this stage.

Criterion C25 - Are the access proposals acceptable
---

С

Page **6** of **10** 

Site Assessment of PK19 - Broadmead

Details of the exact point of access from this site on the highway network will be required. It is expected that access will be gained on the southern side of the site. Any proposal would need to provide details of the access including visibility, geometry and surfacing. While routes from the site to the A351 will go through either Langton Matravers or Kingston, the route is via a B class road and the number of trips will be low. Provided that trip numbers are low, as expected, there will be little adverse impact and direct the site is considered to have a C rating. Dorset County Council 4 November 2013

-----

Extension to existing quarry. Access unchanged and continuation acceptable. Dorset County Council January 2017

Page **7** of **10** 

Site Assessment of PK19 – Broadmead

## Initial Site Assessment including Input from Specialist Consultees

	Traffic/Access
Highways England	Traffic/Access   2015   Purbeck Stone   Policy MS-5 lists the new sites and extensions to existing sites allocated to contribute to the adequate and steady supply of Purbeck Stone as follows:   • Blacklands quarry Extension, Langton Matravers   • Quarr Farm, Harmans Cross   • Southard Quarry, Swanage   • Downs Quarry Extension, Langton Matravers   • Home Field, Acton   • Quarry 4 Extension, Acton   • Broadmead Field, Langton Matravers   • Gallows Gore, Harmans Cross   Given the distance of the sites and or the relatively small scale and therefore traffic generation, Highways England has no comment to make at this stage.   December 2016   We note that, with the exception of Swanworth (PK16), all the (Purbeck Stone) sites are small-scale in nature, and therefore unlikely to generate significant quantities of traffic. The Swanworth site, which whilst large scale, is understood to be an extension of an existing quarry and is forecast to generate approximately 75 trips per day above that currently generated. Given the proximity of the site to the SRN, the extension is unlikely to

Public Rights of Way	
DCC Rights of Way	Comments requested/awaited

Protection of Water Resources (Hydrology/groundwater/ surface water management and flooding)	
Environment Agency	Environmental Constraints:
	Secondary Aquifer
	Flood Zone 1
	Watercourse within 250m
	<u>Dec 2013</u>
	We agree with the criteria classification C12, C13 and C14 for this site, which is given in the supporting documents.
	Our previous comments provided on the 4 Nov 2013 are still relevant. However, we wish to make the following additional comments:
	We are aware that an SEA is being prepared but urge the applicant to ensure that the following issues are included: -
	Proposals which maximise the wetland restoration opportunities at each site
	• Water Framework Assessments (WFD) as necessary and will contribute to the relevant River Basin Plan

objectives

- Proposals should maximise the overall wetland gains.
- EIA/Restoration proposals should incorporate gain of wetland features which will contribute to the aspirations of the England Biodiversity Strategy.

### <u>Oct 2013</u>

#### New site

No objection, at this stage but further assessments required.

**C3:** South Dorset Coast SSSI and Isle of Portland to Studland Cliffs SAC to the south. Therefore Natural England should be consulted.

Site Assessment of PK19 – Broadmead

Protection of	of Water Resources (Hydrology/groundwater/ surface water management and flooding)
	<b>C7:</b> Site within Purbeck Heritage Coast. We therefore recommend you consult with your Heritage Coast colleagues at DCC.
	<b>C12:</b> Criteria classification 'C' as on a Secondary Aquifer, rising to Class 'B' if significant adverse impact is determined for the groundwater spring issues rising 240m from the site.
	The combined impacts of Purbeck Limestone Quarries should be assessed where a number of sites affect the same water resource or receiving water course.
	<b>C13:</b> Criteria classification 'B' as there is a watercourse approximately 240m from the site.
	<b>C14</b> : Criteria classification 'D' as within FZ1.
	Studies required/ considerations:
	Flood Risk Assessment
	Ecological study required
	Possibly Hydrogeological assessment
	July/August 2015
	No objection to proposals and no further comments over and above those previously made in earlier consultations.
	PK19 Broadmead Quarry Site Assessment - No grounds for objection, subject to detail:
Lead Local Flood Authority (LLFA) - DCC	The site falls entirely within Flood Zone 1 (low risk – fluvial flooding) according to the Environment Agency's relevant flood modelling, and is not shown to be at any theoretical risk of surface water flooding, by relevant mapping. Given the prevailing geology, it is likely that surface water would be managed largely via infiltration. A site specific strategy of surface water management is a requirement for all development (NPPF), as no off site worsening should be offered. Both surface and ground water derived from the site is assumed to migrate north towards the Sunnydown grouping of properties.
	Prior Land Drainage Consent may be required from DCC as relevant LLFA, for any works offering an obstruction to flow within a channel or ditch with the status of Ordinary Watercourse.

Landscape & Visual Impact	
AONB Team	No concerns

	Nature Conservation – Biodiversity Impacts	
Natural England comments	No comment	
	PK-19 Broadmead Field	
	Dorset Wildlife Trust <u>objects</u> to the inclusion of the north-west section of this site in the nominated sites. This area is a Site of Nature Conservation Interest, selected for its species-rich unimproved calcareous grassland and it contains one of the best populations of Cowslips in the Isle of Purbeck. It should be removed from the nominated area, along with a suitable buffer.	
	In addition, for the remaining area of the nominated site, the comments regarding restoration for PK-02 Blacklands Quarry also apply here.	

#### Dorset Wildlife Trust

#### PK-02 Blacklands Quarry Extension – 2015

If the MPA take this site forward, DWT would recommend the following:

The restoration should be to species-rich grassland rather than to agriculture and grassland as it would be consistent with the restoration vision for Limestone Plateau as described on page 10 of Background Paper 16: Restoration – Landscape Management Guidelines (January 2013) and the nomination is in close proximity to designated sites, so species-rich grassland creation at this site would provide a useful ecological corridor.

As part of the Purbeck Ponds Project, ponds across Purbeck have been surveyed by Dorset Wildlife Trust. These surveys have shown that the areas around Langton Matravers, Worth Matravers and Kingston hold the largest meta-population of Great Crested Newts in Purbeck and generally ponds in Purbeck are known to contain many nationally scarce invertebrates including beetle and dragonfly species. The creation of a new

Page **9** of **10** 

Site Assessment of PK19 – Broadmead

Nature Conservation – Biodiversity Impacts	
	suitably sited pond within the restoration area will directly contribute to maintaining and enhancing this nationally important assemblage of freshwater wildlife. We recommend that due consideration is given to the prospect of creating a pond within the after-use area that is suitable for use by Great Crested Newts and other freshwater wildlife. DWT would be willing to comment on pond plans and proposals in order to help achieve the maximum wildlife gain.
	The sea caves of the Purbecks are known to be important hibernation sites for Lesser and Greater Horseshoe bats amongst other bat species. The possibility of creating hibernation roosts suitable for bats within the after-use of the site should therefore be considered, as the site is not far from these coastal caves, and might provide useful additional sites for these rare and protected species.

	Historic Environment		
	<b>2014</b> MSP PK19 - Broadmead Field   I note that an archaeological and historic building impact assessment is required before the effect of the proposal can be fully established and any principal determined. <b>2015</b> The Site Assessments and Sustainability Appraisal highlight the critical heritage considerations to be met to satisfy the Minerals Strategy and its development management policies.   Could these matters be précised and their source cross referenced in the 'Development Considerations'		
Historic England Comments	section in the Appendix? The Site assessment and SA highlight the adjacent LBs and acknowledge potential harm. Should the extent of mitigation be determined at an early stage to determine the sites capacity?		
	Also, Site Assessment – "There are various archaeological sites in the area, most notably an Iron Age and Roman period settlement and shale-working site just to the north-west. There is also potential for industrial archaeological evidence of early quarrying. Archaeological assessment and evaluation would be required before an informed planning decision could be made. Only when these have been undertaken would the archaeological impact be understood – at present it could be anywhere from category A to category D". (Criterion C11 – Impact on archaeology. Dorset County Council 04/11/2013).		
	If the impact was "A" substantial harm, then this site, I assume, would be unacceptable in principle? As such, should this heritage consideration be addressed before the principle of a site is agreed and an allocation included in a development plan?		
	I note that the SA appears to contradict this view of the DCC (further assessment is not required at this plan making stage). The LA may wish to clarify this matter.		

Agricultural Land Classification	
DCC Minerals Team	3b - 4

Page **10** of **10**