

**Bournemouth, Dorset & Poole**

**Draft Mineral Sites Plan**

**Conservation Regulations Assessment**

**Screening Report**

**Prepared for Dorset County Council as**

**Mineral Planning Authority**

**June 2016**

## Contents

|   |    |
|---|----|
| 1. Introduction .....   | 3  |
| 2. The Requirement to undertake Conservation Regulations Assessment of Development Plans..... | 3  |
| 3. Stages of Conservation Regulations Assessment.....   | 4  |
| 4. The Mineral Sites Plan.....  | 4  |
| 5. Screening Stage Methodology .....  | 5  |
| 6. Consultation with Natural England.....   | 6  |
| 7. Identification of European Sites .....   | 6  |
| 8. Screening of Draft Mineral Sites Plan Site Options.....                                    | 9  |
| 9. Screening of the Draft Mineral Sites Plan Proposed Policies .....                          | 11 |
| 9.4 Assessment of In-Combination Effects .....  | 11 |
| 10 Conclusion.....  | 11 |
| Appendix 1 – Attributes of European Sites.....  | 13 |
| Appendix 2 - HRA Screening of Site Options: Draft Mineral Sites Plan.....                     | 34 |
| Appendix 3 - HRA Screening of Policies: Draft Mineral Sites Plan .....                        | 44 |

# Mineral Sites Plan - Conservation Regulations Assessment Screening Report

## 1. Introduction

- 1.1. Dorset County Council, Bournemouth Borough Council and the Borough of Poole are jointly preparing the Bournemouth, Dorset and Poole Mineral Sites Plan (the Plan).
- 1.2. The Plan, when complete and adopted, will complement and support the Bournemouth, Dorset and Poole Minerals Strategy, adopted in 2014. The Minerals Strategy sets out the vision and objectives, spatial strategy, core policies and development management policies for the development and supply of minerals across Bournemouth, Dorset and Poole. However the Minerals Strategy is not site-specific and the Mineral Sites Plan will complement the Minerals Strategy through identifying specific sites to deliver the minerals strategies. It will also develop other aspects of the Minerals Strategy.
- 1.3. The Mineral Sites Plan has progressed through a series of stages of preparation and there are still a number of stages remaining. Evidence gathering began in 2007/2008 and the Mineral Sites Allocations Document Discussion Paper was issued for public consultation in 2008. This Paper primarily set out the results of a call for sites, setting out all the potential development sites for public information and comment. This was followed by a break while the Minerals Strategy was completed and adopted. Work on the Draft Mineral Sites Plan, as it was renamed, resumed in 2013 with the range of site options put out to consultation again on December 2013.
- 1.4. Following a review of comments made at this consultation together with further site assessment, the Draft Mineral Sites Plan issued for consultation in July 2015 set out the preferred options of the Mineral Planning Authority for future site development, along with larger spatial areas such as the Aggregates Area of Search, required to deliver the Minerals Strategy. It also developed other aspects of the Minerals Strategy such as mineral safeguarding and site restoration and management, through the Puddletown Road Area policy.
- 1.5. This report provides an audit of the Draft Mineral Sites Plan to ensure compliance with the Conservation of Habitats and Species Regulations 2010, to be known as the Habitats Regulations Assessment Screening ('HRA Screening') of the Mineral Sites Plan. It includes a screening of all spatial options (site and area of search) included in the Draft Mineral Sites Plan and a screening of the proposed policies. The HRA Screening has been undertaken internally by Dorset County Council's Ecologist. It follows the Draft Guidance from Natural England<sup>1</sup>.
- 1.6. The purpose of the screening stage is to determine whether any of the options being considered and any of the policies proposed are likely to have a significant effect on any Special Area of Conservation (SAC), Special Protection Area (SPA) or Ramsar site(s), and from this determine if a full Appropriate Assessment of any policy or site is required. This report presents the findings of this exercise.

## 2. The Requirement to undertake Conservation Regulations Assessment of Development Plans

- 2.1. The Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna, the 'Habitats Directive', provides legal protection for habitats and species of European importance.
- 2.2. It tackles the long-term decline in European biodiversity arising from the destruction and degradation of habitat as well as species persecution and exploitation and aims to maintain and restore sites to their best condition<sup>2</sup>. This is implemented through a network of protected European sites.
- 2.3. Articles 6(3) and 6(4) of the Habitats Directive require Appropriate Assessment of plans and projects likely to have a significant effect on a European site. This means that the effects of such plans or projects on European sites need to be assessed to ensure that the integrity of these sites is

---

<sup>1</sup> Natural England (2009) Revised Draft Guidance: The Habitats Regulations Assessment of Local Development Documents

<sup>2</sup> RSPB (2007) The Appropriate Assessment of Spatial Plans in England: A guide to why, when and how to do it.

maintained<sup>3</sup>.

- 2.4. The HRA comprises a number of stages as set out below. The first stage is the screening stage, which determines whether any options could have a likely significant effect (LSE) on a European site and therefore whether an Appropriate Assessment is required.
- 2.5. The HRA refers to the assessment of the potential effects of a development plan on one or more European sites, which comprise Special Protection Areas and Special Areas of Conservation. These have been combined under the Habitats Directive into the European sites network. It is also Government policy to afford Ramsar sites the same protection as European sites.
- 2.6. For ease of reference, this document refers to all as 'European sites':
  - **Special Protection Areas (SPAs):** for the protection of wild birds and their habitats, including particularly rare and vulnerable species listed in Annex 1 and migratory species designated under the EU Birds Directive
  - **Special Areas of Conservation (SACs):** for other habitats (Annex 1) and or species (Annex II) designated under the EU Habitats Directive.
  - Sites which are being considered for designation as one of the above are referred to as pSPA or cSAC.
  - **Ramsar sites:** wetlands of global importance, listed under the Convention on Wetlands of International Importance.
- 2.7. The Habitats Directive applies the precautionary principle to SPAs and SACs. This means that plans can only be taken forward if it is ascertained that there will be no adverse effect on the integrity of European site(s).
- 2.8. Plans may still be permitted if there are no alternatives to them and there are imperative reasons of overriding public interest as to why they should go ahead. However previous rulings show that these cases are rare. In such cases, compensation will be necessary to ensure the overall integrity of the site network.

### 3. Stages of Conservation Regulations Assessment

- 3.1. There are three overall stages to the Conservation Regulations Assessment process, as set out in DCLG guidance (Planning for the Protection of European Sites: Appropriate Assessment):
  - i. **Screening:** Determining whether the plan or any policy option would have likely significant effects on a European site (either on its own or in-combination with other plans). The screening exercise should be approached on a precautionary basis and should capture any plan policies or proposals that are likely to give rise to a significant effect on a European site. Note that a significant effect can be defined as: "...any effect that may reasonably be predicted as a consequence of a plan or project that may affect the conservation objectives of the features for which the site is designated, but excluding trivial or inconsequential effects."
  - ii. **Appropriate Assessment:** If there are found to be likely significant effects, the plan options must be subject to Appropriate Assessment to ascertain the effect on site integrity, in view of its conservation objectives.
  - iii. **Mitigation Measures and Alternative Solutions:** Where an option has been found to have adverse effects on the integrity of European sites, there should be an investigation of mitigation measures and alternative solutions. If this is not possible, the option should be dropped, unless exceptionally the option is justified by 'imperative reasons of overriding public interest.'

### 4. The Mineral Sites Plan

- 4.1. The Bournemouth, Dorset and Poole Mineral Sites Plan complements and supports the Minerals Strategy in three main ways.
  - i. It identifies the specific spatial options – sites and an aggregates area of search – required to deliver the strategies for the provision of minerals as set out in the Minerals Strategy.

---

<sup>3</sup> DCLG (2006) Planning for the Protection of European Sites: Appropriate Assessment

- ii. It sets out an area based policy for the Puddletown Road, intended to facilitate long-term and coordinated management for the area - including heathland management and restoration.
  - iii. It develops the mineral safeguarding approach set out in the Minerals Strategy, through identifying the minerals sites and infrastructure to be safeguarded.
- 4.2. The Plan comprises 9 policies.
- i. Policy MS-1 allocates nine sand/gravel sites;
  - ii. Policy MS-2 allocates a sand and gravel area of search, intended to facilitate the development of sites within the area;
  - iii. Policy MS-3 allocates a site for provision of recycled aggregate – a consolidation of development on an already operational recycled aggregate site;
  - iv. Policy MS- 4 allocates one site for the provision of ball clay;
  - v. Policy MS-5 allocates eight sites for the provision of Purbeck Stone;
  - vi. Policy MS-6 allocates one site for the provision of Portland Stone;
  - vii. Policy MS-7 allocates 3 sites for the provision of building stone, apart from Purbeck or Portland Stone;
  - viii. Policy MS-8 designates the Puddletown Road Area Policy, intended to secure a consistent and coordinated approach to the development, working and restoration of land permitted for mineral development.
  - ix. Policy MS-9 is intended to develop the safeguarding function established through the Minerals Strategy, requiring local planning authorities to consult the Mineral Planning Authority if non-mineral development proposals are proposed within the relevant buffer zone around the identified minerals extraction, processing and transportation facilities.
- 4.3. Appendix 2 of this HRA Screening presents the results of the site by site assessments and is divided into two tables; 'preferred sites', and 'sites not being taken forward through the plan – but still needing assessment'. The 'preferred sites' include sites which have been revised and re-submitted. Appendix 3 presents the results of the assessment of the nine policies.
- 4.4. The Plan does not attempt to set out a vision/objectives/strategy for minerals development, as these are established through the Minerals Strategy. Chapter 4 of the Minerals Strategy sets out a Vision for mineral extraction in Dorset, supported by six Objectives. Chapter 5 describes the spatial strategy for meeting the need for minerals, identifying in general terms where mineral development would be located and how much would be provided. It notes that the Mineral Sites Plan will develop this Strategy further by identifying specific sites, providing a level of certainty to local residents, the minerals industry, land and minerals owners and other interested stakeholders as to where future minerals development is likely to take place.
- 4.5. Policy SS2 - Identification of Sites in the Mineral Sites Plan - of the Minerals Strategy notes that the new minerals sites will be primarily identified through the Mineral Sites Plan although permission will be granted for unallocated (windfall) sites where it can be demonstrated that there is a need that cannot be met within allocated sites and where development would not prejudice the delivery of allocated sites.
- 4.6. Since the Mineral Sites Plan is required to conform to the Minerals Strategy and is intended to identify the sites and locations required to deliver the Strategy, it has been prepared in accordance with the Vision, Objectives and spatial approach set out in the Minerals Strategy
- 4.7. The Plan will aim to make provision for the continuing supply of minerals in Bournemouth, Dorset and Poole whilst ensuring that the special environment and local communities of these areas are protected. All of the proposed policies of the Draft Mineral Sites Plan have been screened as part of the Habitats Regulations Assessment.

## 5. Screening Stage Methodology

- 5.1. The following steps were undertaken to complete the HRA Screening of the Draft Mineral Sites Plan:
- i. Identification of European Sites

- ii. Screening of all spatial options contained within the Draft Mineral Sites Plan for likely significant effects alone and in-combination.
- iii. Screening of all the proposed policies, vision, objectives and spatial strategy for likely significant effects alone and in-combination.

5.2. The stages are explained in the following sections of this report.

## **6. Consultation with Natural England**

6.1. Natural England has been consulted on the Draft Mineral Sites Plan and invited to comment on this HRA Report.

## **7. Identification of European Sites**

7.1. A review was undertaken to identify all European sites that fall within or adjacent to the boundaries of Dorset County Council, Bournemouth Borough Council and Borough of Poole. This involved the use of a GIS system to record all sites within the boundaries and within a 15km buffer of the Dorset boundary. The 15km buffer was used as a starting point to ensure that any sites that could potentially be affected were captured. It is acknowledged however that some sites either within the county boundary or within the buffer may not be affected at all by minerals development. Therefore within the screening assessment only sites where conceivable impacts and pathways can be envisaged are referred to.

7.2. The identified European sites are listed in Table 1 and illustrated in Figure 1. Marine sites are listed in Table 2.

**Table 1: European Sites Identified**

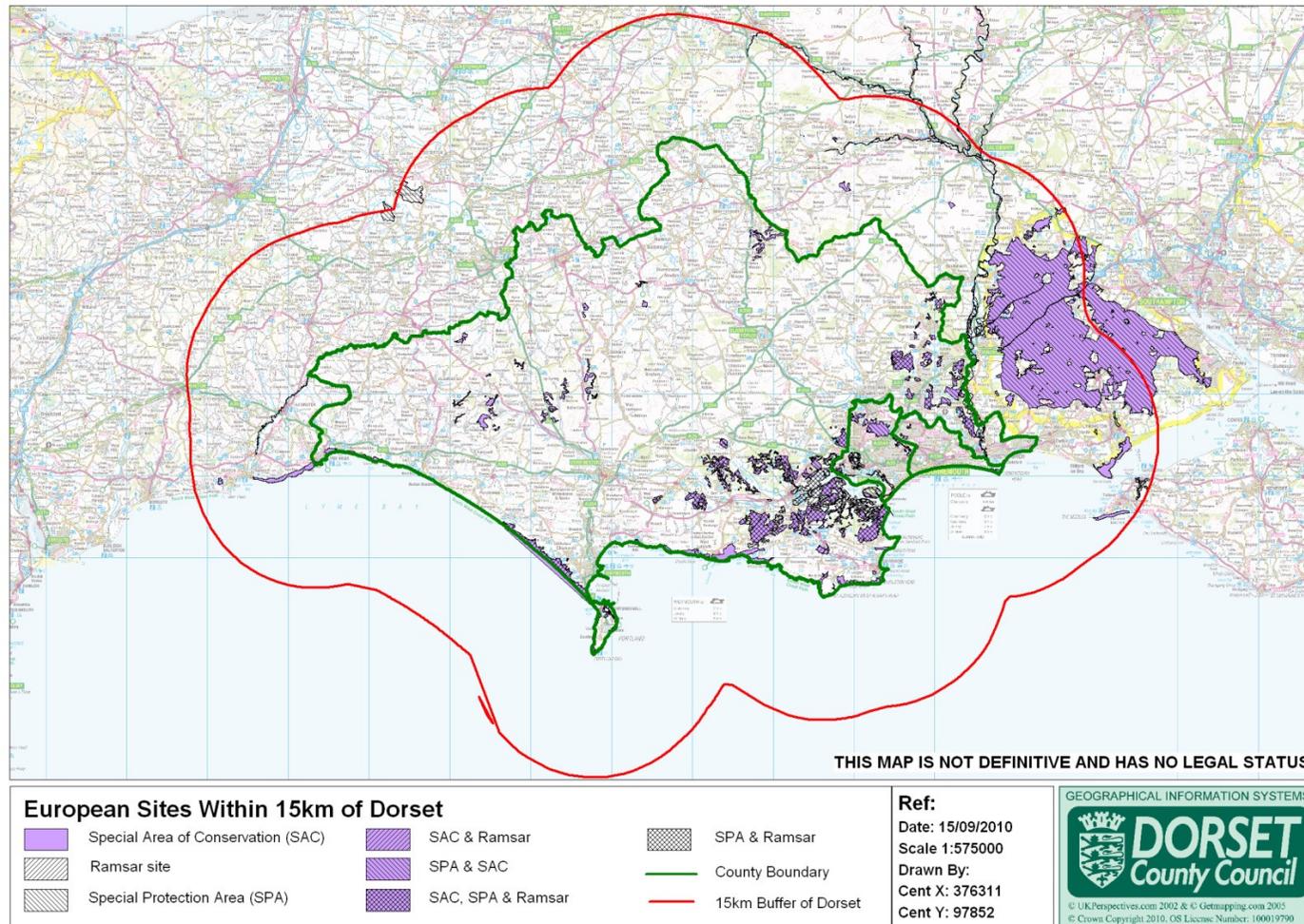
| <b>European Sites Within Dorset, Bournemouth &amp; Poole</b> | <b>European Sites Within 15km of Dorset, Bournemouth &amp; Poole</b> |
|--|--|
| Brackett's Coppice SAC                                       | Beer Quarry & Caves SAC  |
| Cerne and Sydling Downs SAC                                  | Chilmark Quarries SAC  |
| Chesil & The Fleet SAC                                       | Great Yews SAC   |
| Crookhill Brick Pit SAC                                      | Isle of Wight Downs SAC  |
| Dorset Heaths (Purbeck & Wareham) & Studland Dunes SAC       | New Forest SAC   |
| Dorset Heaths SAC  | Prescombe Down   |
| Fontmell & Melbury Downs SAC                                 | River Avon SAC   |
| Holnest SAC  | River Axe SAC  |
| Isle of Portland to Studland Cliffs SAC                      | Solent & Isle of Wight Lagoons SAC                                   |
| Rooksmoor SAC  | Solent Maritime SAC  |
| Sidmouth to West Bay SAC                                     | The New Forest SAC   |
| St Albans Head to Durlston Head SAC                          | Avon Valley SPA  |
| West Dorset Alder Woods SAC                                  | New Forest SPA   |
| Chesil Beach & The Fleet SPA                                 | Solent & Southampton Water SPA                                       |
| Dorset Heathlands SPA  | Somerset Levels & Moors SPA  |
| Poole Harbour SPA  | Avon Valley Ramsar Site  |
| Avon Valley Ramsar Site                                      | New Forest Ramsar Site   |
| Chesil Beach and The Fleet Ramsar Site                       | Somerset Levels & Moors Ramsar Site                                  |
| Dorset Heathlands Ramsar Site                                | Solent & Southampton Water Ramsar Site                               |
| Poole Harbour Ramsar Site                                    |  |

**Table 2: Marine European Sites Identified**

|  |
|--|
| Studland Bay Marine Conservation Zone                    |
| Poole Rocks Marine Conservation Zone                     |
| South of Portland Marine Conservation Zone               |
| Chesil Beach and Stennis Ledges Marine Conservation Zone |
| South Dorset Marine Conservation Zone                    |
| Yarmouth to Cowes Marine Conservation Zone               |
| The Needles Marine Conservation Zone                     |
| Axe Estuary Marine Zone                                  |
| Poole Harbour Marine SAC                                 |
| Lyme Bay and Torbay Marine SAC                           |
| Studland to Portland Marine SAC                          |
| South Wight Maritime Marine SAC                          |

- 7.3. The attributes for each identified European site were then collated from various information sources, including the Joint Nature Conservation Committee (JNCC) website, which includes site information for all SACs, SPAs and Ramsar sites. The exercise also drew on the data compiled for the South West Regional Spatial Strategy HRA.
- 7.4. The table setting out the attributes of all European sites assessed as part of the screening of the Draft Mineral Sites Plan is attached in Appendix 1. The qualifying features of each site and the key vulnerabilities and environmental conditions to support site integrity are set out.

**Figure 1: European Sites Identified Within Dorset, Bournemouth & Poole and 15km Within the County Boundary**



## 8. Screening of Draft Mineral Sites Plan Site Options

### 8.1 Screening of Site Options for Likely Significant Effects

- 8.1.1 All site/spatial options within the Draft Mineral Sites Plan were assessed to determine whether there would be likely significant effects on European sites. The completed screening matrix is attached at Appendix 2.
- 8.1.2 The aim of the screening exercise was to determine: the activities that would likely arise from the allocation of that site option; which European sites could be affected; an indication of the likely effects on the European site(s) resulting from the site allocation; whether the site would have a significant effect on one or more European sites; and an indication of mitigation measures that would be required. Only Natura 2000 sites where conceivable impacts and pathways can be envisaged are identified in the screening assessment.
- 8.1.3 There are 6 ecological issues which are key factors that help to determine the likelihood of adverse effects of development on European sites:
- i. **Hydrology:** surface and sub-surface water regimes are critical to maintenance of wetland interest features of the European heathland sites. Water sources may arise within designated sites or may be at some distance from the site. In bringing forward sites for minerals and hydrocarbons, an understanding of the potential of development to adversely affect local hydrology is essential.
  - ii. **Displacement of recreation:** our understanding of the impact of human and related recreational activity on European heathlands in particular, has grown in the past decade. It is now considered a serious issue which generally threatens the integrity of these sites. If there is already public access on any site to be brought forward for mineral working, an assessment of the existing contribution to recreation in the locality will be needed, the extent to which development would deflect existing recreation patterns towards heathlands, and what mitigation in the form of alternative areas could be brought forward.
  - iii. **Proximity:** in general, the closer a mineral allocation to a European site, the more likely there are to be significant effects on that site. Such effects may result from a range of factors including habitat fragmentation, loss of dispersal corridors, and indirect effects of mineral winning and processing. For example, at its closest, an adjacent mineral quarry could affect a European site if the stand-off were too close, or the angle of cut too steep, such that the part of the European site slipped into the quarry.
  - iv. **Species:** species characteristic of European sites are often found beyond the boundaries of the sites, sometimes in considerable numbers and with functional links to the sites. This is particularly true of reptiles such as Sand Lizard and Smooth Snake. In addition, nightjar habitually forage long distances from their breeding places on heathlands. Features in the wider landscape, such as semi-natural woodlands and improved grasslands, may be important to them.
  - v. **Land management:** parts of European sites may be grazed within units that include areas outside the designated sites and these areas may be important in enabling the grazing regime to function properly. A development may also introduce a need for parts of the European site to be managed in a particular way that is at odds with the conservation objectives.
  - vi. **Pollution:** Restoration of mineral voids and restored habitats could affect European sites, particularly where run-off from mineral sites enters a European site directly or via a receiving watercourse.
- 8.1.4 However, there may also be opportunities for long term ecological gain through site allocation. This may be achieved where, for example, restoration of landfill/mineral voids could offer opportunity for the establishment of priority habitats that may contribute to the management of European sites by providing habitat links.

### 8.2 Findings of the Screening Exercise regarding Sites

- 8.2.1 At this stage in the assessment process it is not always possible to identify where a site allocation would have a likely significant effect as some site nominations/allocations will need more detailed

survey information than others. A combination of survey information, knowledge of the sites and a data search from the Dorset Environmental Records Centre has provided enough information to start the process.

### **8.3 Sites where there is Likely Significant Effect (LSE)**

- 8.3.1 Notwithstanding the comments above, there are five sites currently under active consideration where it was concluded that there would be likely significant effect on the European sites. These were:
- i. AS-02 – Great Plantation, Puddletown Road (N.B. the current ‘red line’ area on which this assessment is based is expected to be reduced in size, after which the revised site will be assessed again).
  - ii. AS-12 – Philliols Farm, Wareham
  - iii. AS-22 & BC-04 – Trigon Hill Extension, Trigon
  - iv. AS-28 - Gallows Hill, Puddletown Road
  - v. PK-17 – Home Field, Acton
- 8.3.2 As they stand, these sites would require an appropriate assessment to determine whether the development proposal would result in a significant adverse effect on the integrity of the European sites. However, consultation with Natural England has indicated that likely significant effect on the European sites could be eliminated through the inclusion of a site specific policy for each site.
- 8.3.3 This policy would ensure that sufficient mitigation would be included in the detailed plans for each site to protect the integrity of the European sites and enable a conclusion of no likely significant effects at the Mineral Sites Planning stage. The exact wording of these policies will need to be determined through consultation and on receipt of the latest ecological, hydrological and site visitor usage surveys where available.
- 8.3.4 There were other sites not currently under active consideration for inclusion in the Mineral Sites Plan but which were still assessed, and where it was concluded on the basis of available information that there would be Likely Significant Effect on the European sites. These were:
- i. AS08 - Horton Heath, Horton (late submission of a site previously considered but now with a revised boundary) – further/broader assessment required before a decision on possible inclusion in the Plan can be made.
  - ii. AS10 – Moreton Plantation, Moreton. This result is based on probable effect - insufficient ecological evidence is currently available for a more rigorous assessment. This site has however been withdrawn from the local planning process.
  - iii. AS23 – Gore Heath, Sandford. This result is based on probable effect - insufficient ecological evidence is currently available for a more rigorous assessment. This site has however been withdrawn from the local planning process.
  - iv. AS24 – Purple Haze (South), Verwood. This result is based on probable effect - insufficient ecological evidence is currently available for a more rigorous assessment. This site has however been withdrawn from the local planning process.
  - v. BC05 – Holme Heath Triangle, (Dorey’s), Wareham. This result is based on probable effect - insufficient ecological evidence is currently available for a more rigorous assessment. This site has however been withdrawn from the local planning process.
- 8.3.5 Should they ultimately be included in the Plan, these sites may require an appropriate assessment to determine whether the development proposal would result in a significant adverse effect on the integrity of the European sites. An alternative would be to include site specific policies in the plan to provide certainty to ensure no likely significant effects, as detailed above.

### **8.4 Sites where LSE is not expected but effects and mitigation are included**

- 8.4.1 For the following sites, effects are considered to be below the threshold of significance but effects and mitigation have been set out to provide information on the process behind the decision.
- i. AS19 - Woodsford Quarry, Woodsford.

- ii. AS26 – Hurst Farm, Moreton.
- iii. RA01 – White’s Pit, Canford Heath.

## **8.5 No likely significant effects**

8.5.1 It is concluded that the remaining site options would have no Likely Significant Effect on European sites.

## **8.6 Assessment of In-Combination Effects**

8.6.1 This assessment has included a consideration of any in-combination effects arising from those Mineral Sites Plan sites with potential LSE when combined with other known or planned activities on or near the sites which may produce LSE. No in-combination effects were identified, as shown in the screening matrix (Appendix 2)

# **9. Screening of the Draft Mineral Sites Plan Proposed Policies**

## **9.1 Screening of Proposed Policies for Likely Significant Effects**

- 9.1.1 All proposed policies within the Draft Mineral Sites Plan were assessed to determine whether there would be likely significant effects on European sites. The completed screening matrix is attached at Appendix 3.
- 9.1.2 Only Natura 2000 sites where conceivable impacts and pathways can be envisaged are identified in the screening assessment.
- 9.1.3 There are six ecological issues which are key factors that help to determine the likelihood of adverse effects of development on European sites, as listed in section 8.1.3 above.

## **9.2 No likely significant effects**

9.2.1 No likely significant effects are expected to result from the implementation of Policies MS-1, MS-2, MS-4, MS-6, MS-7, MS-8 and MS-9. Although effects on European Sites resulting from the implementation of these policies cannot be ruled out, the wording of the policy (taken from the Minerals Strategy, developed in consultation with Natural England) safeguards European Sites.

## **9.3 Likely Significant Effects Uncertain**

- 9.3.1 There are two policies, MS-3 and MS-5, whose implementation is could result in Likely Significant Effects on European sites. In both cases it is Uncertain whether Likely Significant Effects could result.
- 9.3.2 Policy MS-3, as currently worded, does not adequately safeguard against Likely Significant Effect on the European sites adjacent to White’s Pit. As recommended, a sentence stating that the proposed development of the site will comply with Policy DM5 of the Minerals Strategy will be added to the Policy, to ensure no Likely Significant Effect.
- 9.3.3 Policy MS-5, as currently worded, does not adequately safeguard against Likely Significant Effect on St Albans Head to Durlston SAC which is adjacent to one of the allocated sites. As recommended, a sentence stating that the proposed development of these sites will comply with Policy DM5 of the Minerals Strategy will be added to the Policy, to ensure no Likely Significant Effect.

## **9.4 Assessment of In-Combination Effects**

9.4.1 This assessment has included consideration of the combined effects of the Mineral Sites Plan with other relevant DPDs, inside and outside of the plan area. As well, the possibility of in-combination effects between policies within the Mineral Sites Plan has been examined. No In-Combination Effects were identified, as indicated in the screening matrix (Appendix 2).

# **10 Conclusion**

10.1 Providing the changes recommended above and in Appendix 2 are incorporated in the next revision of the Mineral Sites Plan, the Mineral Planning Authority can be confident that the allocated sites will not have an adverse effect on the integrity of the European sites. The Mineral Planning Authority can also be confident that if the recommendations above and in Appendix 3 are

followed, the adoption of the Mineral Sites Plan policies which either allocate specific sites for minerals development or facilitate mineral development and restoration generally will not allow sites to come forward which would be likely to adversely affect the integrity of the European sites.

## Appendix 1 – Attributes of European Sites

### Sites within Dorset, Bournemouth and Poole

| Site Name                     | Area (ha) | Main Feature      | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity  |
|-------------------------------|-----------|-------------------|---|---|
| Brackett's <b>Coppice</b> SAC | 53.75     | Bats              | Annex 1 Non-Primary:<br>Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)<br>Annex II Primary:<br>Bechstein`s bat <i>Myotis bechsteinii</i>  | Non Physical Disturbance: Light pollution (prof judgement)<br>Human presence (prof judgement)<br>Biological Disturbance: Birch invasion of grassland (data form)  |
| Cerne and Sydling Downs SAC   | 371.747   | Lowland grassland | Annex I Primary:<br>Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia)<br>Annex II Primary:<br>Marsh fritillary butterfly <i>Euphydryas</i> ( <i>Eurodryas</i> , <i>Hypodryas</i> ) <i>aurinia</i>   | Biological Disturbance: Long-term overgrazing-prevents survival of Marsh Fritillary (data form)<br>Scrub encroachment also caused by under grazing (data form)  |
| Chesil & The Fleet SAC        | 1635.06   | Coastal           | Annex I Primary:<br>Coastal lagoons * Priority feature<br>Annual vegetation of drift lines_<br>Perennial vegetation of stony banks scrubs ( <i>Sarcocornetea fruticosi</i> )<br>Annex I Non-Primary:<br>Vegetated sea cliffs of the Atlantic and Baltic coasts<br><i>Salicornia</i> and other annuals colonising mud and sand<br>Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> )<br>Sandbanks which are slightly covered | Physical Damage: Changes in natural coastal processes, e.g. through coastal defences (data form)<br>Recreational pressure (EN comments)<br>Toxic Contamination: Accidental oil pollution (data form)<br>Non Toxic Contamination: Water quality - blooms of blue green algae occur (data form) |

| Site Name  | Area (ha) | Main Feature | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity   |
|--|-----------|--------------|---|--|
|  |           |              | by sea water all the time<br>Mudflats and sandflats not covered by seawater at low tide   |  |
| Crookhill Brick Pit SAC                                | 4.71      |              | Annex II Primary:<br>Great crested newt <i>Triturus cristatus</i>   | Physical Loss: Long-term risk of deterioration of the waterbodies due to lack of maintenance (data form)<br>Biological Disturbance: Short-term risk of the introduction of invasive non-native plant species and fish (data form)  |
| Dorset Heaths (Purbeck & Wareham) & Studland Dunes SAC | 2230.75   |              | <b>Annex 1 Primary:</b><br>Embryonic shifting dunes<br>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes')<br>Atlantic decalcified fixed dunes ( <i>Calluno-Ulicetea</i> ) *Priority feature<br>Humid dune slacks<br>Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )<br>Northern Atlantic wet heaths with <i>Erica tetralix</i><br>Temperate Atlantic wet heaths with <i>Erica tetralix</i> *Priority feature<br>European dry heaths<br>Depressions on peat substrates of the <i>Rhynchosporion</i><br>Bog woodland *priority feature<br><b>Annex 1 Non Primary:</b><br>Molinia meadows on calcareous, peaty of clayey-silt-laden soils ( <i>Molinion</i> | Physical loss: development pressure<br>• Physical damage: fragmentation of habitat causing edge and patch size effect<br>• Erosion due to visitor pressure<br>• Wildfires<br>• Extant mineral extraction permissions<br>• Biological disturbance: invasion by conifer and introduced scrub species, especially <i>Rhododendron</i><br>• Successional trend to scrub and woodland<br>• management to maintain or restore favourable condition and the potential effect of development on the ability to achieve such management |

| Site Name         | Area (ha) | Main Feature | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity  |
|-------------------|-----------|--------------|---|---|
|                   |           |              | caeruleae)<br>Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i><br>*Priority feature<br>Alkaline fens<br>Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains<br>Mudflats and sandflats not covered by seawater at low tide<br>Annual vegetation of drift lines<br>Fixed dunes with herbaceous vegetation ('grey dunes')<br><b>Annex 2 Primary:</b><br>Southern Damselfly – <i>Coenagrion mercuriale</i><br><b>Annex 1 Non - Primary:</b><br>Great crested newt – <i>Triturus cristatus</i> |   |
| Dorset Heaths SAC | 5719.54   |              | Northern Atlantic wet heaths with <i>Erica tetralix</i><br>European dry heaths<br>Depressions on peat substrates of the <i>Rhynchosporion</i><br><i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> )<br>Calcareous fens with <i>Cladium mariscus</i> and species of the <i>Caricion davallianae</i><br>*<br>Priority feature<br>Alkaline fens<br>Old acidophilous oak woods with   | <ul style="list-style-type: none"> <li>• Carefully balanced hydrological regime to maintain wet heath, mires and pools.</li> <li>• Acid soils.</li> <li>• Minimal air pollution (nitrogen deposition can cause compositional changes over time).</li> <li>• Unpolluted water and base-rich streams to support Southern damselfly.</li> <li>• Warm climatic conditions (Southern damselfly is at northern limit of its European range).</li> <li>• Un-fragmented heathland.</li> </ul> |

| Site Name                               | Area (ha) | Main Feature                     | Qualifying Features  | Key vulnerabilities and environmental conditions to support site integrity  |
|---|-----------|----------------------------------|--|---|
|   |           |                                  | <i>Quercus robur</i> on sandy plains<br>Southern damselfly <i>Coenagrion mercuriale</i><br>Great crested newt <i>Triturus cristatus</i>  | <ul style="list-style-type: none"> <li>• Use of traditional agriculture to discourage the successional trend to scrub and woodland invasion by conifer and introduced scrub species.</li> <li>• management to maintain or restore favourable condition and the potential effect of development on the ability to achieve such management</li> </ul> |
| Fontmell & Melbury Downs SAC            | 263.09    | Lowland grassland, early gentian | Annex I Non-Primary:<br>Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia)<br>Annex II Primary:<br>Early gentian <i>Gentianella anglica</i><br>Annex II Non-Primary<br><i>Euphydryas aurinia</i>  | Biological Disturbance: Invasive species such as nettles and ragwort due to adjacent intensive farming (data form)<br>Over- grazing (data form)<br>Scrub encroachment (data form)   |
| Holnest SAC                             | 54.94     |                                  | Annex II Primary:<br><b>Great crested newt</b> <i>Triturus cristatus</i>   |   |
| Isle of Portland to Studland Cliffs SAC | 1446.45   |                                  | <b>Annex 1 Primary:</b><br>Vegetated sea cliffs of the Atlantic and Baltic coasts<br>Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia)<br><b>Annex 1 Non-Primary:</b><br>Annual vegetation of drift lines<br>Perennial vegetation of stony banks<br><b>Annex 2 Primary:</b><br>Early gentian – <i>Gentianella anglica</i><br><b>Annex 2 Non-Primary:</b> | Physical damage: coastal erosion <ul style="list-style-type: none"> <li>• Recreational pressure</li> <li>• Extant quarrying permission</li> <li>• Biological disturbance: loss of grazing</li> </ul>  |

| Site Name                           | Area (ha) | Main Feature   | Qualifying Features  | Key vulnerabilities and environmental conditions to support site integrity   |
|-------------------------------------|-----------|--|--|--|
|                                     |           |  | Great Crested Newt <i>Triturus Cristatus</i>   |  |
| Rooksmoor SAC                       | 62.46     | Lowland grassland; Lowland heath; Marsh fritillary butterfly | Annex I Non-Primary:<br>Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)<br>Annex II Primary:<br>Marsh fritillary butterfly <i>Euphydryas</i> ( <i>Eurodryas</i> , <i>Hypodryas</i> ) <i>aurinia</i>   | Non Physical Disturbance: Traffic (prof judgement)<br>Biological Disturbance: Scrub invasion due to lack of grazing (data form)  |
| Sidmouth to West Bay SAC            | 897.508   | Coastal  | Annex I Primary:<br>Vegetated sea cliffs of the Atlantic and Baltic coasts_<br>Tilio-Acerion forests of slopes, screes and ravines * Priority feature<br>Annex I Non-Primary:<br>Annual vegetation of drift lines<br>Mudflats and sandflats not covered by seawater at low tide<br>Perennial vegetation of stony banks<br>Annex II Non-Primary:<br><i>Rhinolophus hipposideros</i><br><i>Gentianella anglica</i> | Physical Loss: None identified<br>Non Physical Disturbance: Light pollution (prof judgement)<br>Human presence (prof judgement)  |
| St Albans Head to Durlston Head SAC | 284.68    | Lowland grassland, early gentian                             | <b>Annex 1 Primary:</b><br>Vegetated sea cliffs of the Atlantic and Baltic coasts<br>Semi-natural dry grasslands and scrubland facies: on calcareous substrates *Priority feature<br><b>Annex 2 Primary:</b><br>Early gentian <i>Gentianella anglica</i><br><b>Annex 2 Non-Primary:</b><br>Greater horseshoe bat <i>Rhinolophus</i>  | Physical damage: climbing activity<br>• Non-physical disturbance: light pollution<br>• Human presence<br>• Biological disturbance: scrub invasion<br>• Threat of <i>Brachypodium</i> becoming dominant |

| Site Name                    | Area (ha) | Main Feature | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity   |
|------------------------------|-----------|--------------|---|--|
|                              |           |              | <i>ferrumequinum</i>  |  |
| West Dorset Alder Woods SAC  | 328.748   | Woodland     | <p>Annex I Primary:<br/>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) * Priority feature</p> <p>Annex I Non-Primary:<br/>Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)_</p> <p>Old acidophilous oak woods with <i>Quercus robur</i> on sandy plains</p> <p>Semi-natural dry grasslands and scrubland facies: on calcareous substrates (<i>Festuco-Brometalia</i>)</p> <p>Annex II Primary:<br/>Marsh fritillary butterfly <i>Euphydryas</i> (<i>Eurodryas</i>, <i>Hypodryas</i>) <i>aurinia</i></p> <p>Annex II Non-Primary:<br/>Great crested newt <i>Triturus cristatus</i></p> | <p>Physical Damage: Game management (data form)</p> <p>Recreation (prof judgement)</p> <p>Development pressure (prof judgement)</p> <p>Water Table: Abstraction (prof judgement)</p> <p>Toxic Contamination: Agricultural runoff (prof judgement)</p> <p>Biological Disturbance: Deer browsing (data form)</p>   |
| Chesil Beach & The Fleet SPA | 747.37    |              | <p>Annex I Birds<br/>Little Tern <i>Sterna albifrons</i></p> <p>Migratory Species:<br/><i>Branta bernicla bernicla</i></p>  | <p>Physical damage:<br/>Development of existing shellfish farm (data form)</p> <p>Non-physical damage:<br/>Recreational pressure(from increased watersport use) (data form)</p> <p>MOD firing range (data form)</p> <p>Routine or accidental oil/chemical discharges into harbour (data form)</p> <p>Agricultural run-off (data form)</p> <p>Non-toxic contamination:<br/>Domestic sewage discharges (data form)</p> |

| Site Name             | Area (ha) | Main Feature | Qualifying Features  | Key vulnerabilities and environmental conditions to support site integrity   |
|-----------------------|-----------|--------------|--|--|
|                       |           |              |  | form)<br>Biological disturbance<br>Introduction of non-native species (data form)  |
| Dorset Heathlands SPA | 8172.82   |              | During the breeding season:<br>Dartford Warbler <i>Sylvia undata</i><br>Nightjar <i>Caprimulgus europaeus</i><br>Woodlark <i>Lullula arborea</i><br>Over winter:<br>Hen Harrier <i>Circus cyaneus</i><br>Merlin <i>Falco columbarius</i> | Acid soils;<br>• Minimal air pollution since nitrogen deposition can cause compositional changes over time;<br>• Unpolluted water;<br>• Unfragmented habitat;<br>• Appropriate grazing regime;<br>• Minimal recreational pressure and avoidance of heathland/accidental fires<br>• The breeding season is important for the European bird populations (March – June), but the area is also important for over-wintering raptors and other fauna.<br>• management to maintain or restore favourable condition and the potential effect of development on the ability to achieve such management |
| Poole Harbour SPA     | 2313.57   |              | During the breeding season:<br>Mediterranean Gull <i>Larus melanocephalus</i><br>Common Tern <i>Sterna hirundo</i><br>Over winter:<br>Pied Avocet <i>Recurvirostra avosetta</i><br>Black-Tailed Godwith <i>Limosa limosa</i>             | • Urban growth and port/marina development<br>• Recreation pressures<br>• Discharge from sewerage treatment<br>• Wytch Farm oilfield – threat of spills<br>• Bait digging<br>• Drainage on grazing marshes   |

| Site Name                              | Area (ha) | Main Feature | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity  |
|--|-----------|--------------|---|---|
|  |           |              | <i>islandica</i><br>Common Shelduck <i>Tadorna tadorna</i>  |   |
| Avon Valley Ramsar Site                | 420.22    |              | <p><b>Ramsar criterion 1</b><br/>The site shows a greater range of habitats than any other chalk river in Britain, including fen, mire, lowland wet grassland and small areas of woodland.</p> <p><b>Ramsar criterion 2</b><br/>The site supports a diverse assemblage of wetland flora and fauna including several nationally-rare species.</p> <p><b>Ramsar criterion 6</b><br/>Species/populations occurring at levels of international importance.<br/>Qualifying Species/populations (as identified at designation):<br/>Species with peak counts in winter: Gadwall , <i>Anas strepera strepera</i>, NW Europe<br/>Species/populations identified subsequent to designation for possible future consideration under criterion 6.<br/>Species with peak counts in winter: Northern pintail , <i>Anas acuta</i>, NW Europe<br/>Black-tailed godwit , <i>Limosa limosa islandica</i>, Iceland/W Europe</p> | <p>Major issue arising from decline in traditional pastoral agriculture and lack of maintenance of ditch network.</p> <ul style="list-style-type: none"> <li>• Management of water levels driven partly by agriculture but also urban flood risk management continues to have adverse effect on habitats.</li> <li>• High levels of silt in river continue to degrade its interest, especially aquatic species but also contribute to silting-up ditches and deterioration of grasslands after flood events.</li> <li>• <i>Crassula helmsii</i> is increasing problem in Blashford</li> <li>• Lakes following restoration of gravel pits, not controlled adequately through planning consents and technically difficult to control following withdrawal of herbicide approval.</li> </ul> |
| Chesil Beach and The Fleet Ramsar Site | 747.37    |              | <p>Ramsar criterion 1<br/>Outstanding example of rare lagoon habitat. Also supports rare saltmarsh</p>  | <p>Physical damage:<br/>Changes in natural physical processes (prof judgement)</p>  |

| Site Name                     | Area (ha) | Main Feature | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity   |
|-------------------------------|-----------|--------------|---|--|
|                               |           |              | habitats.<br>Ramsar criterion 2<br>Supports 15 specialist lagoonal species, five nationally scarce wetland plants and ten nationally scarce wetland animals. Also important for shingle habitats and species.<br>Ramsar criterion 3<br>Largest barrier-built saline lagoon in the UK with greatest diversity of habitats and biota.<br>Ramsar criterion 4<br>Important for number of species at a critical stage in their life cycle, including post-larval and juvenile bass <i>Dicentrarchus labrax</i> .<br>Ramsar criterion 8<br>Nursery for bass <i>Dicentrarchus labrax</i> .<br>Ramsar criterion 6<br>Overwintering Dark-bellied Brent Goose, <i>Branta bernicla</i> | Development of existing shellfish farm (data form)<br>Non-physical disturbance:<br>Recreational pressure (data form)<br>MOD firing range (data form)<br>Toxic contamination:<br>Routine or accidental oil/chemical discharges into harbour (prof judgement)<br>Agricultural run-off (prof judgement)<br>Non-toxic contamination:<br>Domestic sewage discharges (data form) |
| Dorset Heathlands Ramsar Site | 6671.28   |              | <b>Ramsar criterion 1</b><br>Contains particularly good examples of (i) northern Atlantic wet heaths with cross-leaved heath <i>Erica tetralix</i> and (ii) acid mire with <i>Rhynchosporion</i> .<br>Contains largest example in Britain of southern Atlantic wet heaths with Dorset heath <i>Erica ciliaris</i> and crossleaved heath <i>Erica tetralix</i> .<br><b>Ramsar criterion 2</b><br>Supports 1 nationally rare and 13   | Under- grazing leading to scrub invasion <ul style="list-style-type: none"> <li>• Acid rain</li> <li>• Pollution – unspecified</li> <li>• Leaching from waste tips</li> <li>• Development pressure</li> <li>• Further fragmentation</li> <li>• Recreational pressure</li> <li>• Wildfires</li> <li>• Infrastructure works A31 and Bournemouth airport</li> </ul>           |

| Site Name                 | Area (ha) | Main Feature | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity   |
|---------------------------|-----------|--------------|---|--|
|                           |           |              | <p>nationally scarce wetland plant species, and at least 28 nationally rare wetland invertebrate species.</p> <p><b>Ramsar criterion 3</b><br/>Has a high species richness and high ecological diversity of wetland habitat types and transitions, and lies in one of the most biologically-rich wetland areas of lowland Britain, being continuous with three other Ramsar sites: Poole Harbour, Avon Valley and The New Forest.</p>   | <ul style="list-style-type: none"> <li>• Extant mineral permissions</li> <li>• management to maintain or restore favourable condition and the potential effect of development on the ability to achieve such management</li> </ul> |
| Poole Harbour Ramsar Site | 2480.22   |              | <p><b>Ramsar Criterion 1</b><br/>Best example of a bar-built estuary with lagoonal characteristics in Britain</p> <p><b>Ramsar Criterion 2</b><br/>Two species of nationally rare plant and one nationally rare alga. At least three British Red data book invertebrate species</p> <p><b>Ramsar Criterion 3</b><br/>Examples of natural habitat types of community interest – Mediterranean and thermo Atlantic halophilous scrubs, as well as calcareous fens with Cladium mariscus. Transitions from saltmarsh through to peatland mires are of exceptional conservation importance. Nationally important populations of breeding waterfowl including Common</p> |  |

| Site Name | Area (ha) | Main Feature | Qualifying Features  | Key vulnerabilities and environmental conditions to support site integrity |
|-----------|-----------|--------------|--|--|
|           |           |              | tern, <i>Sterna hirundo</i> and Mediterranean gull <i>Larus melanocephalus</i> . Over winter the site also supports a nationally important population of Avocet <i>Recurvirostra avosetta</i> .<br><b>Ramsar Criterion 5</b><br>Species with peak counts in winter:<br>24709 waterfowl<br><b>Ramsar Criterion 6</b><br>Species with peak counts in winter:<br>Common shelduck, <i>Tadorna tadorna</i><br>Black-tailed godwit, <i>Limosa limosa islandica</i> |  |

### Attributes of Marine European Sites

| Site Name                           | Area (ha)                        | Main Feature   |
|-------------------------------------|----------------------------------|--|
| Studland Bay MCZ                    | 397ha                            | n/k  |
| Poole Rocks MCZ                     | 3.8 km <sup>2</sup><br>(374ha)   | Moderate energy circalittoral rock (EUNIS habitat A4.2 Atlantic and Mediterranean moderate energy circalittoral rock)<br>Subtidal mixed sediments (EUNIS habitat A5.4 sublittoral mixed sediments) (undersea beds of a mixture of stones, gravels, sands and muds) |
| South of Portland MCZ               | 1747.6ha                         | -  |
| Chesil Beach and Stennis Ledges MCZ | 3765.5ha                         | High energy intertidal rock<br>Intertidal coarse sediment<br>Native Oyster Pink sea fan  |
| South Dorset MCZ                    | 19264ha<br>(193km <sup>2</sup> ) | Subtidal coarse sediment and subtidal chalk  |
| Yarmouth to Cowes MCZ               | 168ha                            | n/k  |
| The Needles MCZ                     | 1101ha                           | -  |

| Site Name                                | Area (ha)             | Main Feature   |
|--|-----------------------|--|
| Axe Estuary MCZ                          | 32.6ha                | -  |
| Poole Harbour MSPA                       | 22.72 km <sup>2</sup> | n/k  |
| Lyme Bay and Torbay and MSAC             | 313 km <sup>2</sup>   | Annex 1 habitats: Reef<br>Submerged/partially submerged sea caves  |
| Studland to Portland MSAC                | 332 km <sup>2</sup>   | Annex 1 habitat Reef.  |
| South Wight Maritime MSAC                | 188km <sup>2</sup>    | Annex 1 habitats: <ul style="list-style-type: none"> <li>• Reefs</li> <li>• Vegetated sea cliffs of the Atlantic &amp; Baltic coasts</li> <li>• Submerged/partially submerged sea caves</li> </ul>                         |
| Isle of Portland to Studland Cliffs MSAC | 14km <sup>2</sup>     | Annex 1 habitats: <ul style="list-style-type: none"> <li>• Vegetated sea cliffs of Atlantic &amp; Baltic coasts</li> <li>• Semi natural dry grasslands &amp; scrubland facies on calcareous substrates/orchids)</li> </ul> |

#### Sites within a 15km Buffer of Dorset, Bournemouth and Poole

| Site Name               | Area (ha) | Location | Qualifying Features  | Key vulnerabilities and environmental conditions to support site integrity   |
|-------------------------|-----------|----------|--|--|
| Beer Quarry & Caves SAC | 31.4277   |          | Annex II Primary:<br><a href="#">Bechstein`s bat</a> Myotis bechsteinii<br>Annex II Non-Primary:<br><a href="#">Lesser horseshoe bat</a> <b>Rhinolophus hipposideros</b><br><a href="#">Greater horseshoe bat</a> <b>Rhinolophus ferrumequinum</b> | Physical Damage: Occasional quarrying of stone from habitat areas (data form)<br>Non Physical Disturbance: Potential for quarrying and tourism to disturb some areas of bat habitat but site management statement in place to minimise this (data form)<br>Light pollution (prof judgement)<br>Water Table: Flooding of caves (prof judgement) |
| Chilmark Quarries SAC   | 10.4995   |          | <b>Annex II Primary:</b><br>Greater horseshoe bat <b>Rhinolophus ferrumequinum</b>   | Physical Loss: Collapse of underground voids (data form)<br>Non Physical Disturbance: Human  |

| Site Name               | Area (ha) | Location | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity   |
|-------------------------|-----------|----------|---|--|
|                         |           |          | Barbastelle <i>Barbastella barbastellus</i><br>Bechstein`s bat <i>Myotis bechsteinii</i><br>Annex II Non-Primary:<br>Lesser horseshoe bat <i>Rhinolophus hipposideros</i>   | presence, noise and visual disturbance (data form)<br>Light pollution (prof judgement)   |
| Great Yews SAC          | 28.8798   |          | <b>Annex I Primary:</b><br><i>Taxus baccata</i> woods of the British Isles<br>* Priority feature<br><b>Annex I Non-Primary:</b><br>Semi-natural dry grasslands and scrubland facies: on calcareous substrates ( <i>Festuco-Brometalia</i> )   | Physical Loss: None identified   |
| Isle of Wight Downs SAC | 458.087   |          | Vegetated sea cliffs of the Atlantic and Baltic coasts<br>European dry heaths<br>Semi-natural dry grasslands and scrubland facies: on calcareous substrates ( <i>Festuco-Brometalia</i> )<br>Early gentian <i>Gentianella anglica</i>   | Early gentian is associated with a grazing regime which maintains a short turf and a proportion of bare ground.<br>• Maintenance of grazing.<br>• Minimal air pollution – nitrogen deposition may cause reduction in diversity, sulphur deposition can cause acidification.<br>• Absence of direct fertilisation.<br>• Well-drained soils. |
| New Forest SAC          | 29253.96  |          | <b>Annex I Primary:</b><br>Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> )_<br>Oligotrophic to mesotrophic standing waters with vegetation of the <i>Littorelletea uniflorae</i> and/or of the <i>Isoëto-Nanojuncetea</i> _<br>Northern Atlantic wet heaths with <i>Erica</i> | Physical Loss: Afforestation of heathland habitats with conifers and other non-native species (data form)<br>Physical Damage: Increased recreational pressure (data form)<br>Non Physical Disturbance: Light pollution (prof judgement)<br>Human presence (prof judgement)<br>Water Table: Drainage of wetland                             |

| Site Name | Area (ha) | Location | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity   |
|-----------|-----------|----------|---|--|
|           |           |          | <p>tetralix_<br/> European dry heaths_<br/> Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)_<br/> Depressions on peat substrates of the Rhynchosporion_<br/> Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)_<br/> Asperulo-Fagetum beech forests_<br/> Old acidophilous oak woods with Quercus robur on sandy plains_<br/> Bog woodland * Priority feature_<br/> Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) * Priority feature<br/> Annex I Non-Primary:<br/> Transition mires and quaking bogs_<br/> Alkaline fens<br/> Annex II Primary:<br/> Southern damselfly Coenagrion mercuriale_<br/> Stag beetle Lucanus cervus<br/> Annex II Non-Primary:<br/> Great crested newt Triturus cristatus<br/> Barbastella barbastellus<br/> Myotis bechsteini<br/> Lutra lutra<br/> Lampetra planeri</p> | <p>habitats for improved grazing and forestry (data form)<br/> Biological Disturbance: Afforestation of heathland habitats with conifers and other non-native species (data form)<br/> Essential grazing by commoners' animals is vulnerable to current economic trends (data form)</p> <ul style="list-style-type: none"> <li>management to maintain or restore favourable condition and the potential effect of development on the ability to achieve such management</li> </ul> |

| Site Name      | Area (ha) | Location | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity   |
|----------------|-----------|----------|---|--|
|                |           |          | Cottus gobio  |  |
| Prescombe Down | 76.2203   |          | Annex I Non-Primary:<br>Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia)<br>Annex II Primary:<br>Early gentian <i>Gentianella anglica</i><br>Annex II Non-Primary:<br>Marsh fritillary butterfly <i>Euphydryas</i> ( <i>Eurodryas</i> , <i>Hypodryas</i> ) <i>aurinia</i>  | Biological Disturbance: Inappropriate grazing regimes (data form)<br>Increased stocking of game birds (data form)  |
| River Avon SAC | 467.584   |          | Annex I Primary:<br>Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation<br>Annex I Non-Primary:<br>Alkaline fens<br>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> ( <i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i> )<br>Annex II Primary:<br><i>Desmoulin's whorl snail</i> <i>Vertigo moulinsiana</i><br><i>Sea lamprey</i> <i>Petromyzon marinus</i><br><i>Brook lamprey</i> <i>Lampetra planeri</i><br><i>Atlantic salmon</i> <i>Salmo salar</i><br><i>Bullhead</i> <i>Cottus gobio</i><br>Annex II Non-Primary:<br><i>Lutra lutra</i><br><i>Austropotamobius pallipes</i> | Physical Damage: Channel modifications causing changes to sediment processes (data form)<br>Water Table: Abstraction (data form and WT comments)<br>Is a serious problem already plus new development proposed at Bath, Trowbridge and Salisbury-even greater impact (EN comments)<br>Toxic Contamination: Water pollution (data form)<br>Non Toxic Contamination: Nutrient enrichment (data form) |
| River Axe SAC  | 25.0997   |          | Annex I Primary:  | Non Toxic Contamination: Nutrient  |

| Site Name                          | Area (ha) | Location | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity  |
|------------------------------------|-----------|----------|---|---|
|                                    |           |          | Water courses of plain to montane levels with the Ranunculus fluitans and Callitriche-Batrachium vegetation<br>Annex II Primary:<br>Sea lamprey Petromyzon marinus_<br>Brook lamprey Lampetra planeri_<br>Bullhead Cottus gobio_<br>Salmo salar   | enrichment (data form)  |
| Solent & Isle of Wight Lagoons SAC | 37.935    |          | Annex I Primary:<br>Coastal lagoons<br>Annex I Non-Primary:<br>Salicornia and other annuals colonising mud and sand<br>Atlantic salt meadows (Glaucopuccinellietalia maritima)  | Water Table: Sea-level rise- coastal defence (data form).<br>Toxic Contamination: Industrial waste disposal/landfill/discharges (data form)<br>Diffuse pollution occurring off the site (data form) |
| Solent Maritime SAC                | 11243.38  |          | Annex I Primary:<br>Estuaries<br><u><a href="#">Spartina swards (Spartinion maritima)</a></u><br><u><a href="#">Atlantic salt meadows (Glaucopuccinellietalia maritima)</a></u><br>Annex I Non-Primary:<br><u><a href="#">Sandbanks which are slightly covered by sea water all the time</a></u><br><u><a href="#">Mudflats and sandflats not covered by seawater at low tide</a></u><br><u><a href="#">Coastal lagoons</a></u> * Priority feature<br><u><a href="#">Annual vegetation of drift lines</a></u><br><u><a href="#">Perennial vegetation of stony banks</a></u><br><u><a href="#">Salicornia and other annuals colonising mud and sand</a></u><br><u><a href="#">Shifting dunes along the shoreline</a></u> |   |

| Site Name       | Area (ha) | Location | Qualifying Features  | Key vulnerabilities and environmental conditions to support site integrity   |
|-----------------|-----------|----------|--|--|
|                 |           |          | <p><u>with <i>Ammophila arenaria</i> ('white dunes')</u></p> <p><b>Annex II Non-Primary:</b><br/> <u><i>Desmoulin's whorl snail</i></u> <i>Vertigo moulinsiana</i></p>   |  |
| Avon Valley SPA | 1351.1    |          | <p>Over winter:<br/>           Bewick's Swan <i>Cygnus Columbianus bewickii</i><br/>           Gadwall <i>Anas strepera</i></p>  | <p>Maintenance of appropriate hydrological regime<br/>           Unpolluted water</p> <ul style="list-style-type: none"> <li>• Absence of nutrient enrichment of water</li> <li>• Absence of non-native species</li> <li>• Appropriate grazing regimes</li> </ul>  |
| New Forest SPA  | 27997.59  |          | <p>During the breeding season:<br/>           Dartford Warbler <i>Sylvia undata</i><br/>           Honey Buzzard <i>Pernis apivorus</i><br/>           Nightjar <i>Caprimulgus europaeus</i><br/>           Woodlark <i>Lullula arborea</i><br/>           Over winter:<br/>           Hen Harrier <i>Circus cyaneus</i></p> | <p>A carefully balanced hydrological regime to maintain wet heaths, mires and pools. Most of the valley mires have been damaged in the past by drainage which has resulted in drying out of peat layers. Low water levels lead to decrease in wetland habitats of wading birds.</p> <ul style="list-style-type: none"> <li>• Acid soils.</li> <li>• Maintenance of grazing and other traditional management practices.</li> <li>• Minimal air pollution since nitrogen deposition can cause compositional changes over time;</li> <li>• Unpolluted water.</li> <li>• Minimal nutrient inputs.</li> <li>• Low recreational pressures. A recent decline in waders, redshank, lapwing, curlew and snipe is thought</li> </ul> |

| Site Name                      | Area (ha) | Location | Qualifying Features  | Key vulnerabilities and environmental conditions to support site integrity   |
|--------------------------------|-----------|----------|--|--|
|                                |           |          |  | <p>to be related to dog walkers.</p> <ul style="list-style-type: none"> <li>management to maintain or restore favourable condition and the potential effect of development on the ability to achieve such management</li> </ul>  |
| Solent & Southampton Water SPA | 5401.44   |          | <p>During the breeding season:<br/> Common Tern <i>Sterna hirundo</i><br/> Little Tern <i>Sterna albifrons</i><br/> Mediterranean Gull <i>Larus melanocephalus</i><br/> Roseate Tern <i>Sterna dougallii</i><br/> Sandwich Tern <i>Sterna sandvicensis</i><br/> Over winter:<br/> Black-tailed Godwit <i>Limosa limosa islandica</i><br/> Dark-bellied Brent Goose <i>Branta bernicla bernicla</i><br/> Ringed Plover <i>Charadrius hiaticula</i><br/> Assemblage qualification: A</p> | <p>Unpolluted water.</p> <ul style="list-style-type: none"> <li>Absence of nutrient enrichment.</li> <li>Absence of non-native species.</li> <li>No dredging or land-claim of coastal habitats.</li> <li>Low amounts of silt loss;</li> <li>Maintenance of freshwater inputs for certain bird species.</li> <li>Sufficient space between the site and development to allow for managed retreat of intertidal habitats and avoid coastal squeeze.</li> <li>Low levels of recreational pressure both on shore/off shore to reduce disturbance during sensitive overwintering periods.</li> </ul> |
| Somerset Levels & Moors SPA    | 6393.72   |          | <p>Annex I Birds:<br/> Bewick's Swan <i>Cygnus columbianus bewickii</i><br/> Golden Plover <i>Pluvialis apricaria</i><br/> Migratory Species:<br/> Teal <i>Anas crecca</i><br/> Vanellus <i>vanellus</i><br/> The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly</p>  | <p>Physical Loss:<br/> Conversion of grassland to arable (data form)<br/> Physical Damage:<br/> Cutting of silage (data form)<br/> Water Table:<br/> Drainage (data form and WT comments)<br/> Hydrological effects of development at Taunton and Bridgewater (RSPB</p>  |

| Site Name               | Area (ha)                            | Location                                    | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity   |
|-------------------------|--------------------------------------|---|---|--|
|                         |                                      |   | supporting at least 20,000 waterfowl<br>Over winter, the area regularly supports 72,874 individual waterfowl (5 year peak mean 1991/2 - 1995/6) | comments)<br>Non-toxic contamination:<br>Nutrient enrichment due to increased discharge from Ham Sewage Treatment facility Into River Tone above Curry Moor (data form, WT and EN comments)  |
| Avon Valley Ramsar Site | See above (also falls within Dorset) |   |   |  |
| New Forest Ramsar Site  | 27997.59                             | Woodland; Lowland heath; Bog, fen and swamp |   | Physical Loss:<br>Afforestation of heathland habitats with conifers and other non-native species (data form)<br>Physical damage:<br>Recreational pressure (data form)<br>Changes in management regime (prof judgement)<br>Non-physical disturbance:<br>Human presence (data form)<br>Increased population(RSPB comments)<br>Recreational pressure (RSPB comments)<br>Light pollution (prof judgement)<br>Water Table:<br>Drainage of wetland habitats for improved grazing and forestry (data form)<br>Biological Disturbance:<br>Afforestation of heathland habitats with conifers and other non-native species |

| Site Name                              | Area (ha) | Location                              | Qualifying Features  | Key vulnerabilities and environmental conditions to support site integrity  |
|--|-----------|---------------------------------------|--|---|
|  |           |                                       |  | (data form)<br>Essential grazing by commoners' animals is vulnerable to current economic trends (data form)<br><ul style="list-style-type: none"> <li>management to maintain or restore favourable condition and the potential effect of development on the ability to achieve such management</li> </ul>   |
| Somerset Levels & Moors Ramsar Site    | 6394.53   | Lowland grassland; Bog, fen and swamp | Ramsar criterion 2<br>Supports 17 species of British Red Data Book invertebrates.<br>Ramsar criterion 5<br>Species with peak counts in winter:<br>97155 waterfowl<br>Ramsar criterion 6<br>Species with peak counts in winter:<br>Tundra swan , Cygnus columbianus bewickii<br>Eurasian teal , Anas crecca<br>Northern lapwing , Vanellus vanellus | Physical Loss:<br>Conversion of grassland to arable (data form)<br>Physical Damage:<br>Cutting of silage (data form)<br>Water Table:<br>Drainage (data form)<br>Water level management issues due to development on flood plain (WT comments)<br>Non-toxic contamination:<br>Nutrient enrichment due to increased discharge from Ham Sewage Treatment facility into River Tone above Curry Moor (EN comments) |
| Solent & Southampton Water Ramsar Site | 5306.66   |                                       | Ramsar criterion 1<br>One of the few major sheltered channels between a substantial island and mainland in European waters, exhibiting an unusual strong double tidal flow with long periods of slack water at high and low tide. Includes many wetland habitats characteristic of   | Physical Loss:<br>Land-claim (data form)<br>Development pressure (prof judgement)<br>Coastal squeeze (prof judgement)<br>Physical Damage:<br>Erosion (data form)<br>Flood and coastal defence works (data form)   |

| Site Name | Area (ha) | Location | Qualifying Features   | Key vulnerabilities and environmental conditions to support site integrity   |
|-----------|-----------|----------|---|--|
|           |           |          | <p>the biogeographic region: saline lagoons, saltmarshes, estuaries, intertidal flats, shallow coastal waters, grazing marshes, reedbeds, coastal woodland and rocky boulder reefs.</p> <p>Ramsar criterion 2<br/>Supports an important assemblage of rare plants and invertebrates. At least 33 British Red Data Book invertebrates and at least eight British Red Data Book plants.</p> <p>Ramsar criterion 5<br/>Species with peak counts in winter:<br/>51343 waterfowl</p> <p>Ramsar criterion 6<br/>Species with peak counts in spring/autumn:<br/>Ringed plover , Charadrius hiaticula</p> <p>Species with peak counts in winter:<br/>Dark-bellied brent goose, Branta bernicla<br/>bernicla<br/>Eurasian teal , Anas crecca<br/>Black-tailed godwit , Limosa limosa islandica</p> | <p>Dredging (data form)<br/>Recreational pressure (prof judgement)<br/>Water Table:<br/>Sea level rise (prof judgement)<br/>Toxic Contamination:<br/>Industrial/oil pollution (prof judgement)<br/>Pollution from former waste disposal sites (data form)<br/>Non-toxic contamination:<br/>Sewage discharge (prof judgement)</p> |

## Appendix 2 - HRA Screening of Site Options: Draft Mineral Sites Plan

There are 6 ecological issues which are key factors that help to determine the likelihood of adverse effects of development on European sites, 6 relating to aggregate and ball clay sites, and to hydrocarbon exploration and production:

- **Hydrology:** surface and sub-surface water regimes are critical to maintenance of wetland interest features of the European heathland sites. Water sources may arise within designated sites or may be at some distance from the site. In bringing forward sites for minerals and hydrocarbons, an understanding of the potential of development to adversely affect local hydrology is essential.
- **Displacement of recreation:** our understanding of the impact of human and related recreational activity on European heathlands in particular, has grown in the past decade. It is now considered a serious issue which generally threatens the integrity of these sites. If there is already public access on any site to be brought forward for mineral working, an assessment of the existing contribution to recreation in the locality will be needed, the extent to which development would deflect existing recreation patterns towards heathlands, and what mitigation in the form of alternative areas could be brought forward.
- **Proximity:** in general, the closer a mineral allocation to a European site, the more likely there are to be significant effects on that site. Such effects may result from a range of factors including habitat fragmentation, loss of dispersal corridors, and indirect effects of mineral winning and processing. For example, at its closest, an adjacent mineral quarry could affect a European site if the stand-off were too close, or the angle of cut too steep, such that the part of the European site slipped into the quarry.
- **Species:** species characteristic of European sites are often found beyond the boundaries of the sites, sometimes in considerable numbers and with functional links to the sites. This is particularly true of reptiles Sand Lizard and Smooth Snake. In addition, nightjar habitually forage long distances from their breeding places on heathlands and features in the wider landscape, such as semi-natural woodlands and improved grasslands, may be important to them.
- **Land management:** parts of European sites may be grazed within units that include areas outside the designated sites and these areas may be important in enabling the grazing regime to function properly. A development may also introduce a need for parts of the European site to be managed in a particular way that is at odds with the conservation objectives.
- **Pollution:** Restoration of mineral voids and restored habitats could affect European sites, particularly where run-off from mineral sites enters a European site directly or via a receiving watercourse.

### Preferred Sites

| Site Option                                | Could the proposed site have likely significant effects on European sites?  | Likely activities to result as a consequence of development of the site | Likely effects if site is developed   | European sites potentially affected                                    | Mitigation   | In-combination effects |
|--|---|---|---|--|--|------------------------|
| <b>Sand and Gravel</b>                     |   |   |   |  |  |                        |
| Great Plantation, Puddletown Road ( AS-06) | Yes, based on available information and the proposed site boundary, mineral working would have significant adverse effects on the European sites.<br>Insufficient information is available for this site to enable a rigorous assessment and expert opinion and the precautionary approach have been relied upon. | Sand and gravel extraction. Creation of voids.                          | - Proximity: based on the current proposed boundary, mineral working would destroy part of the SAC/SPA. Also potential effects of habitat fragmentation, loss of dispersal corridors and foraging habitat.<br>- Effects on species characteristic of European sites including Annex 1 bird populations and reptile populations for which the habitat forms a functional link with adjacent European sites.<br>- Displacement of | Dorset Heaths SAC<br>Dorset Heathlands SPA<br>Dorset Heathlands Ramsar | The magnitude of effects could be reduced by a reduction in the area to be worked and an increase in proposed heathland restoration but at present insufficient information has been provided by the operator to assess whether such a reduction could result in a viable development which would avoid the significant adverse effect identified. | <b>No</b>              |

| Site Option                                | Could the proposed site have likely significant effects on European sites?   | Likely activities to result as a consequence of development of the site | Likely effects if site is developed  | European sites potentially affected                                | Mitigation   | In-combination effects |
|--|--|---|--|--|--|------------------------|
|  |  |   | recreation: the site currently provides open access recreational land which helps to reduce recreational impacts on adjacent European sites.                           |  |  |                        |
| Hurn Court Farm Quarry, Hurn (AS-09)       | No – there is no realistic pathway by which European sites could be affected by development.   | N/A   | N/A  | N/A  | N/A  | N/A                    |
| Philliois Farm, Wareham (AS-12)            | Yes, although insufficient ecological information is available for this site to enable a rigorous assessment and conclusions are based on the precautionary principle.<br>Based on expert judgement, available information and the proposed site boundary, it has been concluded that mineral working would have significant adverse effects on the European sites.<br><br>If the wording and suggestions in section 8 and in this table were adopted then this would mitigate against likely significant effects and enable a conclusion of no LSE to be drawn. | Use of haul road through or adjacent to European sites.                 | - Displacement of recreation from Wareham Forest if haul road ran through the Forest<br>- Effects on species characteristic of European sites, including Annex 1 birds | Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar | Re-routing of haul road along western edge of Wareham Forest.<br>Creation of a standoff at the northern boundary of the site to buffer effects on adjacent European Sites.<br><br>A site specific policy would ensure no LSE on the European sites | No                     |
| Roeshot, Christchurch (AS-13)              | No – there is no realistic pathway by which European sites could be affected by development.   | N/A   | N/A  | N/A  | N/A  | N/A                    |
| Henbury Farm, Sturminster Marshall (AS-14) | No – there is no realistic pathway by which European sites could be affected by development.   | N/A   | N/A  | N/A  | N/A  | N/A                    |
| Tatchells Quarry, Wareham (AS-15)          | No – there is no realistic pathway by which European sites could be affected by development.   | N/A   | N/A  | N/A  | N/A  | N/A                    |
| Woodsford Quarry ( AS-19)                  | No - although effects are considered to be below the threshold of significance they are discussed to provide information on the process behind the decision.   | Sand and gravel extraction  | - Effects of pollution (silt, nutrients) on Poole Harbour SPA during extraction, restoration or aftercare phases.  | Poole Harbour SPA, Poole Harbour Ramsar                            | These effects could be mitigated against by implementation of standard pollution control measures and by creation of a suitable standoff from the River Frome.   | N/A                    |
| Trigon Hill Extension ( AS-22)             | Yes, for the reasons outlined in this table.   | Sand and gravel extraction. Creation of voids.                          | - Species effects: potential impacts on  | Dorset Heaths SAC, Dorset Heathlands SPA,                          | Restoration to heathland/acid  | No                     |

| Site Option                           | Could the proposed site have likely significant effects on European sites?  | Likely activities to result as a consequence of development of the site | Likely effects if site is developed   | European sites potentially affected  | Mitigation  | In-combination effects |
|---------------------------------------|---|---|---|--|---|------------------------|
|                                       | If the wording and suggestions in section 8 and in this table were adopted then this would mitigate against likely significant effects and enable a conclusion of no LSE to be drawn.   |   | Annex 1 birds for which the site forms part of a functional unit with the SPA.  | Dorset Heathlands Ramsar   | grassland, plus a possible buffer zone at the northern end of the extension will mitigate any potential effects on Annex 1 birds or other species associated with the designated sites. In addition, the creation (through felling) of a more open woodland habitat would provide additional territory for Annex 1 bird species associated with the adjacent European sites. A site specific policy would ensure no LSE on the European sites |                        |
| Station Road, Moreton (AS-25)         | No - there is no realistic pathway by which European sites could be affected by development.  | N/A   | N/A   | N/A  | N/A   | <b>N/A</b>             |
| Hurst Farm, Moreton ( AS-26)          | No - although effects are considered to be below the threshold of significance they are discussed to provide information on the process behind the decision.  | Sand and gravel extraction  | - Effects of pollution (silt, nutrients) on Poole Harbour SPA during extraction, restoration or aftercare phases.   | Poole Harbour SPA, Poole Harbour Ramsar  | These effects could be mitigated against by careful pollution control measures on site and by creation of a suitable standoff from the River Frome.   | <b>N/A</b>             |
| Gallows Hill, Puddletown Road (AS-28) | Yes, although insufficient ecological information is available for this site to enable a rigorous assessment and conclusions are based on the precautionary principle.<br><br>If the wording and suggestions in section 8 and in this table were adopted then this would mitigate against likely significant effects and enable a conclusion of no LSE to be drawn. | Sand and gravel extraction  | - Hydrological effects on the adjacent heathland as a result of extraction.<br>- Proximity: the proposals may effect the designated sites through being in direct proximity.<br>- Species: the proposals may impact on species characteristic of the designated sites<br>- Effects of pollution (silt, nutrients) on Poole Harbour SPA during extraction phase. | Dorset Heaths SAC<br>Dorset Heathlands SPA<br>Dorset Heathlands Ramsar<br>Poole Harbour SPA,<br>Poole Harbour Ramsar | These effects could be mitigated by careful design including an unworked buffer zone nearest to the European sites. Species and hydrological survey information will also enable design of effective mitigation.<br><br>A site specific policy would ensure no LSE on the European sites.   | <b>No</b>              |
| <b>Crushed Rock</b>                   |   |   |   |  |   |                        |
| Swanworth Quarry Extension,           | No – although the extension is near the Isle of Portland to   | N/A   | N/A   | N/A  | N/A   | <b>N/A</b>             |

| Site Option  | Could the proposed site have likely significant effects on European sites?  | Likely activities to result as a consequence of development of the site | Likely effects if site is developed  | European sites potentially affected                                | Mitigation   | In-combination effects |
|--|---|---|--|--|--|------------------------|
| Worth Matravers (PK-16)                                | Studland Cliffs SAC the plans include sufficient standoff and prevailing winds are from the South West which should carry any dust away from the SAC.   |   |  |  |  |                        |
| <b>Recycled Aggregates</b>                             |   |   |  |  |  |                        |
| White's Pit, Canford Heath (RA-01)                     | No - although effects are considered to be below the threshold of significance they are discussed to provide information on the process behind the decision.  | Inert aggregate recycling   | - Proximity – impacts of dust, vermin (rats and foxes) on Annex 1 birds and reptiles.                                  | Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar | Proximity effects could be avoided by creation of a suitable standoff from the European sites and implementation of standard pollution controls.   | <b>N/A</b>             |
| <b>Ball Clay</b>                                       |   |   |  |  |  |                        |
| Trigon Hill Extension, Wareham (BC-04)                 | Yes, for the reasons outlined in this table.<br><br>If the wording and suggestions in section 8 and in this table were adopted then this would mitigate against likely significant effects and enable a conclusion of no LSE to be drawn. | Sand and gravel extraction.   | - Species effects: potential impacts on Annex 1 birds for which the site forms part of a functional unit with the SPA. | Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar | Restoration to heathland/acid grassland, plus a possible buffer zone at the northern end of the extension will mitigate any potential effects on Annex 1 birds or other species associated with the designated sites. In addition, the creation (through felling) of a more open woodland habitat would provide additional territory for Annex 1 bird species associated with the adjacent European sites.<br><br>A site specific policy would ensure no LSE on the European sites | <b>No</b>              |
| <b>Purbeck Stone</b>                                   |   |   |  |  |  |                        |
| Blacklands Quarry Extension, Langton Matravers (PK-02) | No – there is no realistic pathway by which European sites could be affected by development.  | N/A   | N/A  | N/A  | N/A  | <b>N/A</b>             |
| Southard Quarry, Swanage (PK-10)                       | No – there is no realistic pathway by which European sites could be affected by development.  | N/A   | N/A  | N/A  | N/A  | <b>N/A</b>             |
| Quarr Farm, Harmans Cross (PK-08)                      | No – there is no realistic pathway by which European sites could be affected by development.  | N/A   | N/A  | N/A  | N/A  | <b>N/A</b>             |

| Site Option   | Could the proposed site have likely significant effects on European sites?                                   | Likely activities to result as a consequence of development of the site | Likely effects if site is developed | European sites potentially affected | Mitigation   | In-combination effects |
|---|--|---|-------------------------------------|-------------------------------------|--|------------------------|
| Downs Quarry Extension, Langton Matravers (PK-15)                   | No – there is no realistic pathway by which European sites could be affected by development.                 | N/A   | N/A                                 | N/A                                 | N/A  | N/A                    |
| Home Field, Acton (PK-17)   | Yes, but if the mitigation suggested in this table is adopted then this conclusion can be changed to no LSE. | Stone quarrying   | Creation of dust                    | St Albans Head to Durlston SAC      | Draw back the west boundary to create a 100m buffer adjacent to the SAC. | No                     |
| Broadmead Field, Langton Matravers (PK-19)                          | No – there is no realistic pathway by which European sites could be affected by development.                 | N/A   | N/A                                 | N/A                                 | N/A  | N/A                    |
| Gallows Gore, Harmans Cross (PK-21)                                 | No – there is no realistic pathway by which European sites could be affected by development.                 | N/A   | N/A                                 | N/A                                 | N/A  | N/A                    |
| Quarry 4 Extension, Acton (PK-18)                                   | No – there is no realistic pathway by which European sites could be affected by development.                 | N/A   | N/A                                 | N/A                                 | N/A  | N/A                    |
| <b>Portland Stone</b>   |  |   |                                     |                                     |  |                        |
| Bowers Mine Extension, St Georges Road (PS-01)                      | No – there is no realistic pathway by which European sites could be affected by development.                 | N/A   | N/A                                 | N/A                                 | N/A  | N/A                    |
| <b>Other Building Stone (Apart from Portland and Purbeck Stone)</b> |  |   |                                     |                                     |  |                        |
| Marnhull Quarry, Marnhull (BS-02)                                   | No – there is no realistic pathway by which European sites could be affected by development.                 | N/A   | N/A                                 | N/A                                 | N/A  | N/A                    |
| Frogden Quarry, Osborne (BS-04)                                     | No – there is no realistic pathway by which European sites could be affected by development.                 | N/A   | N/A                                 | N/A                                 | N/A  | N/A                    |
| Whithill Quarry, Lillington (BS-05)                                 | No – there is no realistic pathway by which European sites could be affected by development.                 | N/A   | N/A                                 | N/A                                 | N/A  | N/A                    |

**Late submission/re-submission – not allocated but included for information purposes in the Draft Plan Consultation, to be assessed (See Maps below)**

| Site Option             | Could the proposed site have likely significant effects on European sites?                   | Likely activities to result as a consequence of development of the site | Likely effects if site is developed           | European sites potentially affected                                   | Mitigation  | In-combination effects |
|-------------------------|--|---|---|---|---|------------------------|
| Redlands Quarry, Todber | No – there is no realistic pathway by which European sites could be affected by development. | N/A   | N/A   | N/A   | N/A   | <b>N/A</b>             |
| Horton Heath, Horton    | Yes – for Horton Heath   | Sand and gravel extraction from Horton Heath and Clump Hill areas.      | Displacement of recreation from Horton Heath. | Dorset Heaths SAC, Dorset Heathlands SPA and Dorset Heathlands Ramsar | Restrict permission boundary to central area of Horton Heath, avoiding rights of way and therefore protection recreational interest of site | <b>No</b>              |

**Sites not being taken forward through the Plan – but still requiring assessment.**

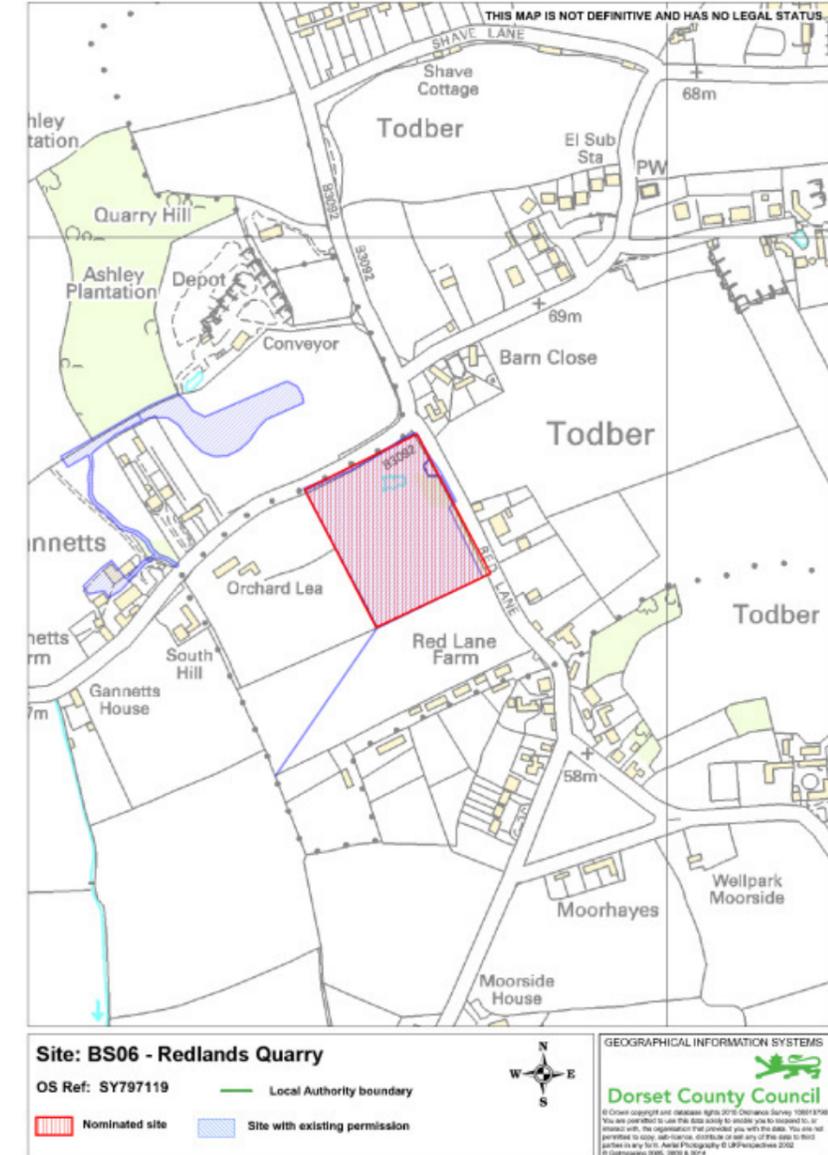
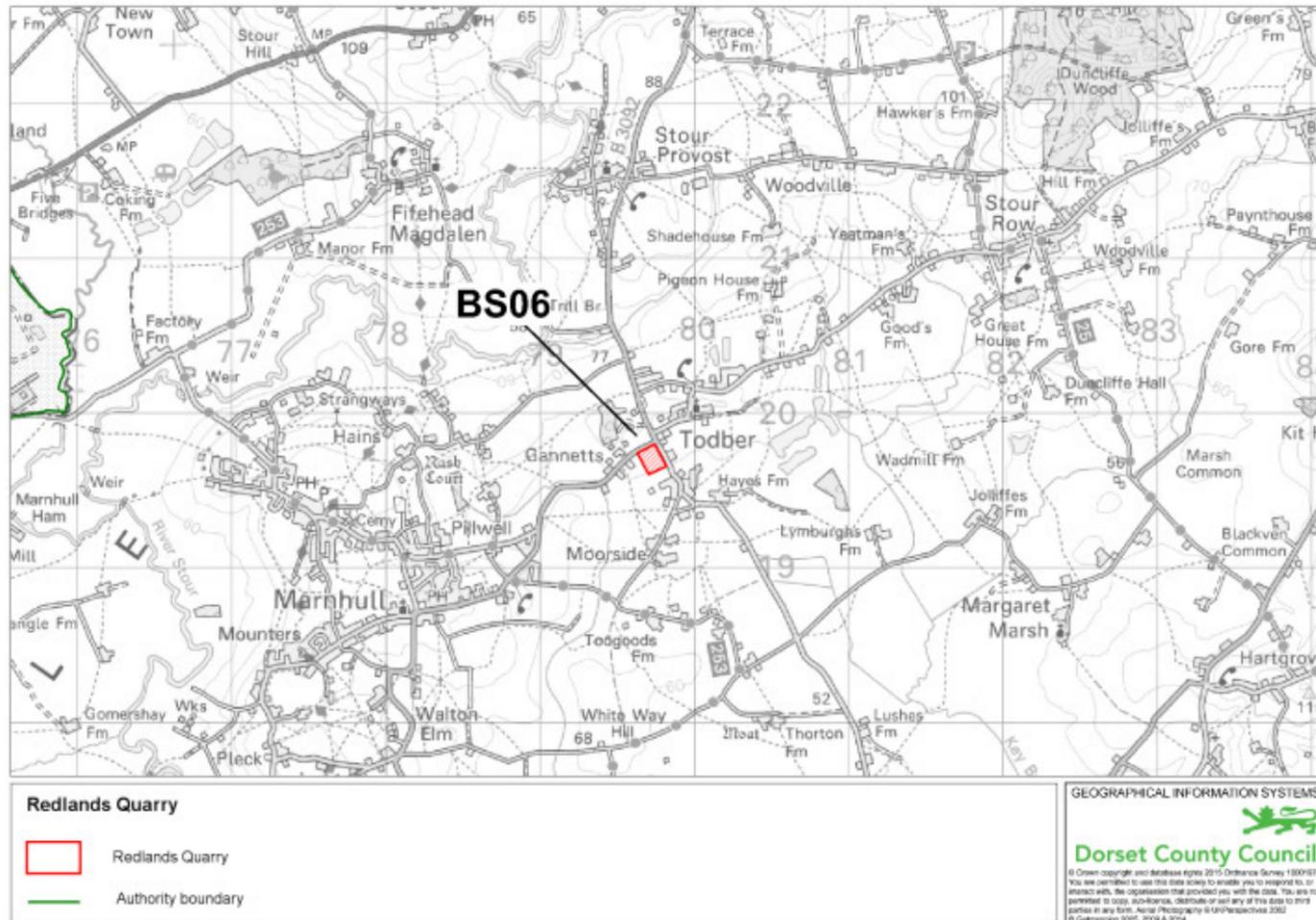
| Site Option                        | Could the proposed site have likely significant effects on European sites?   | Likely activities to result as a consequence of development of the site | Likely effects if site is developed  | European sites potentially affected                                | Mitigation   | In-combination effects |
|------------------------------------|--|---|--|--|--|------------------------|
| <b>Sand and Gravel</b>             |  |   |  |  |  |                        |
| AS-10 Moreton Plantation, Moreton  | Yes – although probable affects are considered here, insufficient ecological information has been provided for this site to enable a rigorous assessment. Therefore the site cannot be subjected to a Habitats Regulations Assessment at this stage. | Extraction of sand and gravel   | -Displacement of recreation onto adjacent European sites<br>-Effects on hydrology of European sites<br>-Effects on species characteristic of European sites including Annex 1 birds. Site may qualify as pSPA.<br>-Proximity. Working part of the site would impact on the quality of the remaining habitat.<br>-Site boundary includes significant parts of the European sites which would be adversely affected. | Dorset Heaths SAC, Dorset Heathlands SPA                           | Unable to assess this due to insufficient information. | <b>No</b>              |
| AS-11 Parley Court (Phase 3), Hurn | No – there is no realistic pathway by which European sites could be affected by development..  | N/A   | N/A  | N/A  | N/A  | <b>N/A</b>             |
| AS-21 Came Home Farm, Dorchester   | No – there is no realistic pathway by which European sites could be affected by development.   | N/A   | N/A  | N/A  | N/A  | <b>N/A</b>             |
| AS-23 Gore Heath, Sandford         | Yes. This conclusion relies on expert judgement as insufficient ecological information has been provided by the applicant. For this reason it is not possible to carry out a HRA at this stage, although an indication of the likely                 | Extraction of sand and gravel   | - Displacement of recreation from the proposed site to adjacent European sites.<br>- Effects on species characteristic of European sites, including Annex 1 birds. Site known to support Nightjar and  | Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar | Unable to assess this due to insufficient information. | <b>No</b>              |

| Site Option                                   | Could the proposed site have likely significant effects on European sites?   | Likely activities to result as a consequence of development of the site | Likely effects if site is developed  | European sites potentially affected                                | Mitigation  | In-combination effects |
|---|--|---|--|--|---|------------------------|
|   | effects is presented.  |   | may qualify as pSPA<br>- Effects resulting from proximity to European sites – working this site may affect the quality of the adjacent sites.  |  |   |                        |
| AS-24 Purple Haze (South), Verwood            | Yes. This conclusion relies on expert judgement as insufficient ecological information has been provided by the applicant. For this reason it is not possible to carry out a HRA at this stage, although an indication of the likely effects is presented. | Extraction of sand and gravel   | - In-combination effects from proximity to Purple Haze north.<br>- Displacement of recreation. Site is part of Moors Valley Country Park, an area which is key to attraction recreation away from adjacent European sites.<br>- Effects on species characteristic of European sites – records of Nightjar and Sand lizard.   | Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar | Not possible to assess without further information. | <b>Yes, likely.</b>    |
| <b>Ball Clay</b>                              |  |   |  |  |   |                        |
| BC-05 Holme Heath Triangle (Dorey's), Wareham | Yes. This conclusion relies on expert judgement as insufficient ecological information has been provided by the applicant. For this reason it is not possible to carry out a HRA at this stage, although an indication of the likely effects is presented. | Extraction of ball clay   | - Effects on hydrology – it is likely that approximately half of the site helps support the adjacent mire system which forms part of the relevant European sites.<br>- Effects resulting from proximity to European sites – working this site may affect the quality of the adjacent sites.<br>- Effects on species characteristic of European sites – it is likely that the area supports Annex 1 birds functionally linked with the SPA<br>- Effects on management of European sites – the site forms part of a grazing unit linking the European sites to the north and south. If this was disrupted it is likely that the effectiveness of grazing would be compromised. | Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar | Unable to assess this without further information.  | <b>No</b>              |
| <b>Purbeck Stone</b>                          |  |   |  |  |   |                        |
| PK-11 St Aldhelm's Quarry Extension, Purbeck  | No – there is no realistic pathway by which European sites could be affected by development.   | N/A   | N/A  | N/A  | N/A   | <b>N/A</b>             |
| PK-20 Crack Lane, Langton Matravers           | No – there is no realistic pathway by which European sites could be affected by development.   | N/A   | N/A  | N/A  | N/A   | <b>N/A</b>             |

| Site Option   | Could the proposed site have likely significant effects on European sites?                   | Likely activities to result as a consequence of development of the site | Likely effects if site is developed | European sites potentially affected | Mitigation | In-combination effects |
|---|--|---|-------------------------------------|-------------------------------------|------------|------------------------|
| <b>Portland Stone</b>   |  |   |                                     |                                     |            |                        |
| PS-02 Perryfield Quarry Extension, Portland                         | No – there is no realistic pathway by which European sites could be affected by development. | N/A   | N/A                                 | N/A                                 | N/A        | <b>N/A</b>             |
| <b>Other Building Stone (Apart from Portland and Purbeck Stone)</b> |  |   |                                     |                                     |            |                        |
| BS-01 Manor Farm Quarry, Melbury Abbas                              | No – there is no realistic pathway by which European sites could be affected by development. | N/A   | N/A                                 | N/A                                 | N/A        | <b>N/A</b>             |

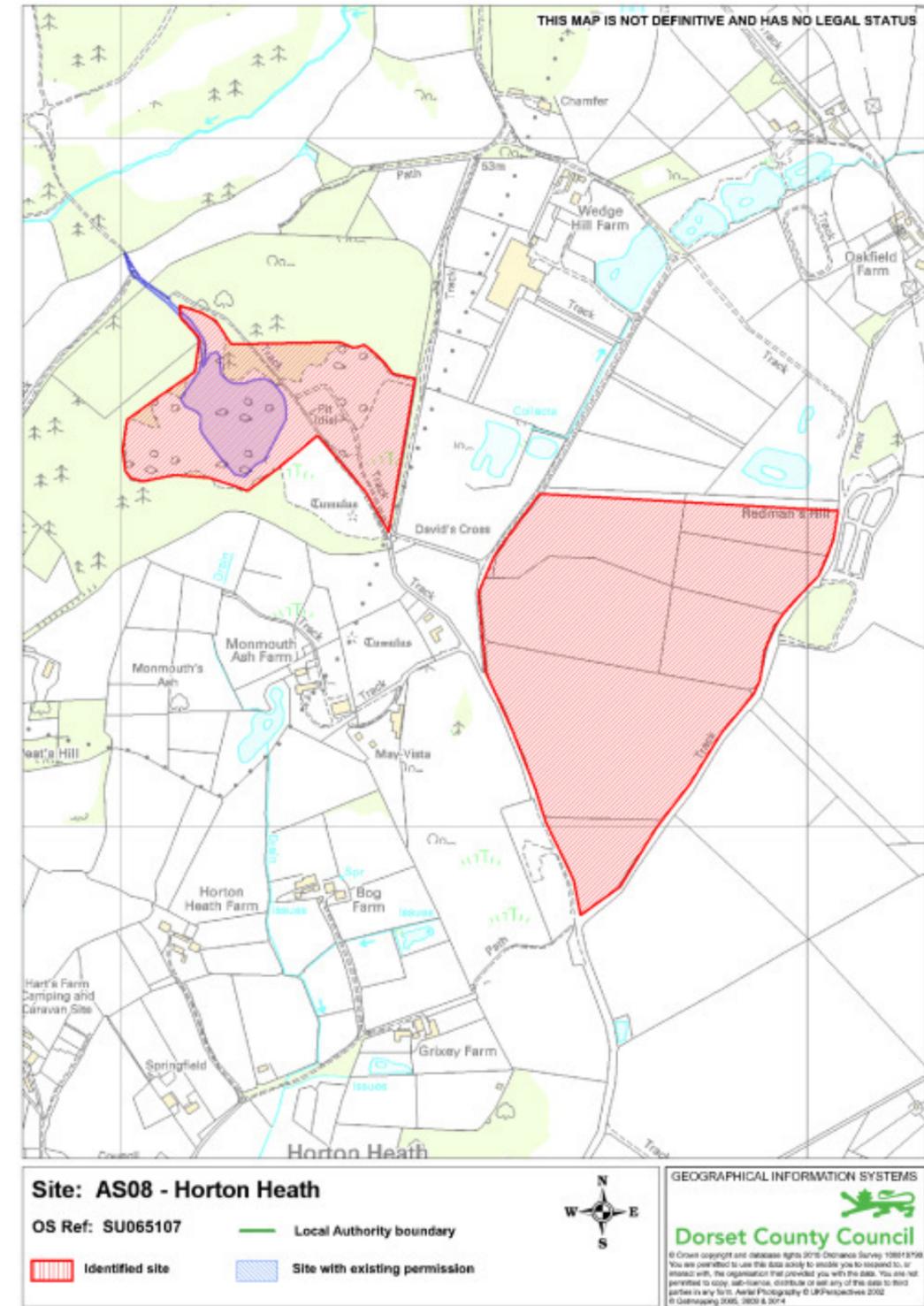
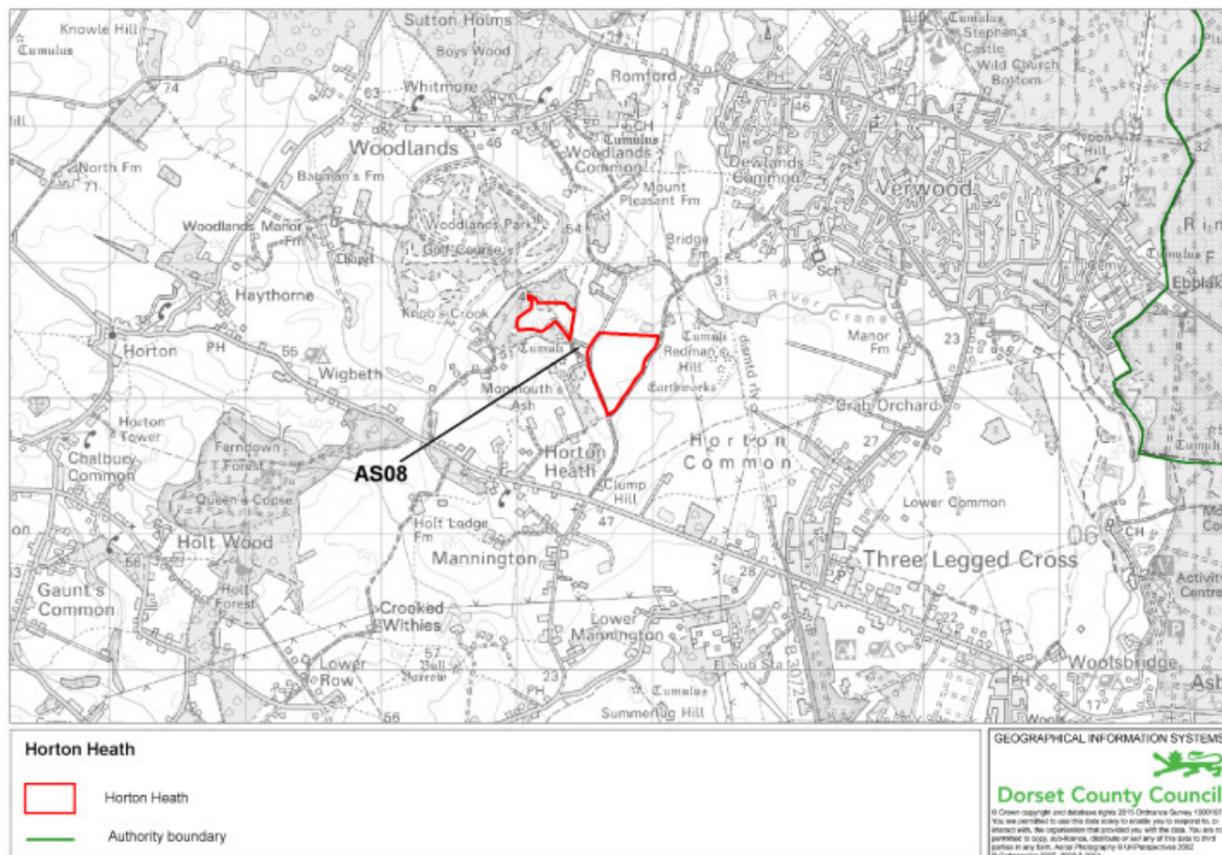
**Redlands Quarry, Todber**

Redlands Quarry in Todber (Inset Map BS-06 and location map Figure 10 below) has also been suggested for inclusion in the Mineral Sites Plan. There is no extension or new site area proposed, but allocation in the Plan will assist in securing future supply of stone from the site. It is estimated that there is some 40 years supply of stone left in the quarry, with a current extant permission for extraction for 5 years. As this site nomination has only recently been received and has not been assessed for possible impacts by the Mineral Planning Authority, it is not at this stage presented as an allocation in the Plan. Furthermore, since there is no new development proposed at this site, the Mineral Planning Authority is considering whether it is appropriate to include it as a site allocation.



### Horton Heath, Horton

Land at Horton Heath (Inset Map AS-08 in Appendix A and location map Figure 2 below) has in the past been nominated for consideration, and has recently been amended and re-submitted. As this re-submission has only just been received it has not been re-assessed for possible impacts and their mitigation and therefore is not at this stage presented as an allocation in the Plan. It is included for information purposes at this time. The nomination will be re-assessed and the Mineral Planning Authority will come to a decision regarding whether it is suitable for inclusion in the Mineral Sites Plan.



Appendix 3 - HRA Screening of Policies: Draft Mineral Sites Plan

| Proposed Policy   | Could the proposed policy have likely significant effects on European sites?  | Likely activities to result as a consequence of the policy   | Likely effects if policy implemented  | European sites potentially affected                                | Mitigation  | In-combination effects |
|---|---|--|---|--|---|------------------------|
| <b>Policy MS-1: Sites for the provision of sand and gravel</b>    | No – whilst effects on European sites cannot be ruled out, the policy wording safeguards European sites. This wording is taken from the Minerals Core Strategy which was developed after consultation with Natural England.   | Mineral voids, discharge of water from settlement lagoons, restoration of sites, related infrastructure to support mineral extraction. | N/A   | N/A  | N/A   | N/A                    |
| <b>Policy MS-2: Sand and Gravel Area of Search</b>                | No – whilst effects on European sites cannot be ruled out because the Area of Search encompasses parts of the relevant European sites, the policy wording safeguards these sites. This wording is taken from the Minerals Core Strategy which was developed after consultation with Natural England.  | Submission of unallocated sites.   | N/A   | N/A  | N/A   | N/A                    |
| <b>Policy MS-3: Site for the provision of recycled aggregates</b> | Uncertain: As it stands the policy does not adequately safeguard against Likely Significant Effect on the European sites adjacent to White's Pit. Suggest the insertion of a sentence stating the submission/application will comply with Policy DM5 as this would ensure no Likely Significant Effect.                                     | Inert aggregate recycling  | Possible proximity effects on European sites from dust (damaging the heathland habitat), increased vermin levels (increased predation on heathland wildlife). | Dorset Heaths SAC, Dorset Heathlands SPA, Dorset Heathlands Ramsar | Insertion of the recommended sentence into the policy would safeguard against effects on European sites | N/A                    |
| <b>Policy MS-4: Site for the provision of ball clay</b>           | No – whilst effects on European sites cannot be ruled out, the policy wording safeguards European sites. This wording is taken from the Minerals Core Strategy which was developed after consultation with Natural England.   | Mineral voids, discharge of water from settlement lagoons, related infrastructure to support mineral winning, restoration of voids.    | N/A   | N/A  | N/A   | N/A                    |
| <b>Policy MS-5: Sites for the provision of Purbeck Stone</b>      | Uncertain: As it stands the policy does not adequately safeguard against Likely Significant Effect on St Albans Head to Durlston SAC which is adjacent to one of the allocated sites. Suggest the insertion of a sentence stating the submission/application will comply with Policy DM5 as this would ensure no Likely Significant Effect. | Creation of mineral voids.   | Possible proximity effects on the European site from dust (damaging the coastal grassland)  | St Albans Head to Durlston SAC                                     | Insertion of the recommended sentence into the policy would safeguard against effects on European sites | N/A                    |
| <b>Policy MS-6: Site for the provision of Portland Stone</b>      | No – whilst effects on European sites cannot be ruled out, the allocated site for Portland Stone is too far from the European sites to cause Likely Significant Effect.   | Creation of mineral voids  | N/A   | N/A  | N/A   | N/A                    |

| Proposed Policy  | Could the proposed policy have likely significant effects on European sites?                             | Likely activities to result as a consequence of the policy | Likely effects if policy implemented | European sites potentially affected | Mitigation | In-combination effects |
|--|--|--|--------------------------------------|-------------------------------------|------------|------------------------|
| <b>Policy MS-7: Sites for the provision of other building stone (excluding Portland and Purbeck Stone)</b> | No – the location of the allocated sites is such that effects on European sites are extremely unlikely.  | N/A  | N/A                                  | N/A                                 | N/A        | N/A                    |
| <b>Policy MS-8: Puddletown Road Area Policy</b>  | No – whilst effects on European sites cannot be ruled out, the policy wording safeguards European sites. | N/A  | N/A                                  | N/A                                 | N/A        | N/A                    |
| <b>Policy MS-9: Safeguarding Minerals Sites and Infrastructure</b>   | No – the policy itself will not lead to development.   | N/A  | N/A                                  | N/A                                 | N/A        | N/A                    |

### Policy MS-1: Sites for the provision of sand and gravel

The following new sites and extensions to existing sites are allocated to contribute to the adequate and steady supply of sand and gravel:

- i. Binnegar Quarry, Binnegar - approximately 4,800,000 tonnes (Inset Map AS-01)
- ii. Great Plantation - extraction area and volume of mineral to be extracted subject to further assessment (Inset Map AS-06). Development of this site to be considered in conjunction with other permitted but un-worked aggregate reserves in the vicinity.
- iii. Hurn Court Farm Quarry, Hurn - approximately 600,000 tonnes (Inset Map AS-09)
- iv. Roeshot, Christchurch - approximately 3,500,000 tonnes (Inset Map AS-13)
- v. Tatchells Quarry, Wareham - approximately 380,000 tonnes (Inset Map AS-15)
- vi. Woodsford Quarry, Woodsford - approximately 2,100,000 tonnes (Inset Map AS-19)
- vii. Trigon Hill Extension - approximately 600,000 tonnes (Inset Map AS-22)
- viii. Station Road, Moreton - approximately 2,400,000 tonnes (Inset Map AS-25)
- ix. Hurst Farm, Moreton - approximately 2,600,000 tonnes (Inset map AS-26)

All proposals for the development of these allocations will quantify the extent of all relevant development considerations, including those set out in Appendix A, and demonstrate that any adverse impacts will be mitigated to the satisfaction of the Mineral Planning Authority.

Sites will only be considered where it has been demonstrated that possible effects (including those related to hydrology, displacement of recreation, species, proximity, land management and restoration) that might arise from their development would not adversely affect the integrity of the Dorset Heaths SAC, Dorset Heathlands SPA and Dorset Heathland Ramsar site either alone or in combination with other plans or projects.

### Policy MS-2: Sand and Gravel Area of Search

An Area of Search, as shown in Figure 3 and on the Policies Map, is designated with the intention of facilitating the development of sand and gravel sites and maintaining appropriate levels of supply. Proposals for the development of unallocated sites from within the Area of Search will be permitted if:

- i. there is a demonstrable shortfall in the supply of sand and gravel, or
- ii. the development of an unallocated site offers net environmental benefits that would justify its development, and
- iii. in the case of i. and ii. above,
  - a. they would not delay or otherwise prejudice the development of allocated site(s), and

- b. they would not add unacceptable cumulative impacts to the development of allocated or permitted sites.

Applications for the development of non-allocated sites within the designated Area of Search must demonstrate that the proposals quantify the extent of all relevant development considerations and that any adverse impacts will be mitigated to the satisfaction of the Mineral Planning Authority.

Sites will only be considered where it has been demonstrated that possible effects (including those related to hydrology, displacement of recreation, species, proximity, land management and restoration) that might arise from their development would not adversely affect the integrity of the Dorset Heaths SAC, Dorset Heathlands SPA and Dorset Heathland Ramsar site either alone or in combination with other plans or projects.

### **Policy MS-3: Site for the provision of recycled aggregates**

Land at White's Pit in Poole (see Inset Map RA-01 in Appendix A) is suitable for aggregates recycling and will make a significant contribution to the steady supply of recycled aggregate.

Proposals to develop this site for the production of recycled aggregates, whether through consolidation of existing operations or by other means, shall not result in any net increase in adverse impact upon the openness of the Green Belt and must quantify the extent of all relevant development considerations, including those set out in Appendix A. Such proposals must demonstrate that any adverse impacts will be mitigated to the satisfaction of the Mineral Planning Authority.

### **Policy MS-4: Sites for the provision of ball clay**

The following extension to an existing site will contribute to the supply of ball clay, provided that the proposal quantifies the extent of all relevant development considerations, including those set out in Appendix A, and demonstrates that any adverse impacts will be mitigated to the satisfaction of the Mineral Planning Authority:

- i. Trigon Hill Extension, Wareham (Inset Map BC-04)

All site allocations must demonstrate that impacts resulting from their development and/or restoration can be mitigated to the satisfaction of the Mineral Planning Authority.

Sites will only be considered where it has been demonstrated that possible effects (including those related to hydrology, displacement of recreation, species, proximity, land management and restoration) that might arise from their development would not adversely affect the integrity of the Dorset Heaths SAC, Dorset Heathlands SPA and Dorset Heathland Ramsar site either alone or in combination with other plans or projects.

### **Policy MS-5: Sites for the provision of Purbeck Stone**

The following new sites and extensions to existing sites are allocated to contribute to the adequate and steady supply of Purbeck Stone:

- i. Blacklands Quarry Extension, Langton Matravers (Inset Map PK-02)
- ii. Quarr Farm, Harmans Cross (Inset Map PK-08)
- iii. Southard Quarry, Swanage (Inset Map PK-10)
- iv. Downs Quarry Extension, Langton Matravers (Inset Map PK-15)
- v. Home Field, Acton (Inset Map PK-17)
- vi. Quarry 4 Extension, Acton (Inset Map PK-18)
- vii. Broadmead Field, Langton Matravers (Inset Map PK-19)
- viii. Gallows Gore, Harmans Cross (Inset Map PK-21)

All proposals for the development of these allocations will quantify the extent of all relevant development considerations, including those set out in Appendix A, and demonstrate that any adverse impacts will be mitigated to the satisfaction of the Mineral Planning Authority.

### **Policy MS-6: Site for the provision of Portland Stone**

The following extension to an existing mine will contribute to the supply of Portland Stone provided that the proposal quantifies the extent of all relevant development considerations, including those set out in Appendix A, and demonstrates that any adverse impacts will be mitigated to the satisfaction of the Mineral Planning Authority:

- i. Bowers Mine Extension, St Georges Road (Inset Map PS-01)

**Policy MS-7: Sites for the provision of other building stone (excluding Portland and Purbeck Stone)**

The following extensions to existing sites will contribute to the supply of building stone, provided that the proposals quantify the extent of all relevant development considerations, including those set out in Appendix A, and demonstrate that any adverse impacts will be mitigated to the satisfaction of the Mineral Planning Authority:

- i. Marnhull Quarry, Marnhull (Inset Map BS-02)
- ii. Frogden Quarry, Osborne (Inset Map BS-04)
- iii. Whithill Quarry, Lillington (Inset Map BS-05)

**Policy MS-8: Puddletown Road Area Policy**

Within the Puddletown Road Area as shown on the Policies Map and in Figure 11 the Mineral Planning Authority will work with operators, landowners, Natural England and the Local Nature Partnership to secure a consistent and coordinated approach to the development, working and restoration of land permitted for mineral development.

This consistent and coordinated approach will support the management objectives of the Heath/Forest Mosaic Landscape Type and will also:

- i. avoid or minimise adverse transport, environmental or amenity impacts arising from mineral workings;
- ii. maximise opportunities for biodiversity gains, including through effective and timely restoration of lowland heath and associated habitats, thereby helping to deliver (i) and linking restored sites with areas of nature conservation interest;
- iii. secure cost-effective and long-term aftercare and management;
- iv. meet environmental and compatible recreational objectives in the area.

Management activities will only be undertaken where it can be demonstrated that any possible effects that might result will not adversely affect the integrity of the Dorset Heaths SAC, Dorset Heathlands SPA and Dorset Heathland Ramsar sites either alone or in combination with other plans or projects.

**Policy MS-9: Safeguarding Minerals Sites and Infrastructure**

Local planning authorities will be expected to consult the Mineral Planning Authority on proposals for non-minerals development that could prejudice the implementation or continued use of minerals sites or infrastructure safeguarded by Policy SG3 of the Minerals Strategy.