Bournemouth, Dorset and Poole

Minerals Strategy

Adopted 6 May 2014

Dorset County Council

Bournemouth Borough Council

boroughofpoole.com

Bournemouth, Dorset and Poole Minerals Strategy – May 2014 (Adopted)

Foreword

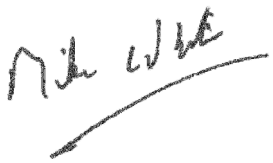
Minerals are essential to society and it is vital that a sufficient supply is maintained to provide for the needs of communities and the economy. This places a responsibility upon areas with mineral resources (such as ours) to plan effectively for the sustainable use of their mineral reserves.

The Bournemouth, Dorset and Poole Minerals Strategy (the Minerals Strategy) covers the administrative areas of the three Mineral Planning Authorities of Dorset County Council, Borough of Poole and Bournemouth Borough Council, which happens to be the same geographical area as the Dorset Local Enterprise Partnership. It sets out the strategic planning policy framework for minerals up to 2028, including a spatial steer as to potentially suitable locations for some forms of mineral extraction.

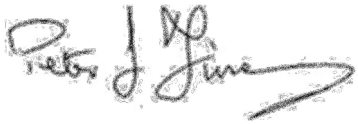
The Plan area is host to a diverse range of important minerals including Portland Stone, Purbeck Stone, ball clay, sand and gravel and oil and gas reserves. The area is also a highly challenging one for mineral extraction. Some of our mineral resources exist very close to settlements which are sensitive to quarrying activities. Furthermore, the local environment contains or is close to protected landscapes, habitats and designations, including the Dorset and East Devon Coast World Heritage Site (Jurassic Coast), two Areas of Outstanding Natural Beauty, internationally important heathlands and wetlands, and the nearby New Forest National Park (in neighbouring Hampshire), not to mention locally important assets. This has required a great deal of care in preparing the policies in this plan.

Adoption of the Minerals Strategy on 6 May 2014 provides the statutory policy framework to plan positively for minerals needs up to 2028. This will help us to manage our mineral reserves in a sustainable manner while minimising the adverse impacts of mineral extraction upon people or the environment.

David Smith - Cabinet Portfolio for Planning and Environment, Bournemouth Borough Council



Mike White – Deputy Leader and Portfolio Holder for Regeneration and Inward Investment, Borough of Poole



Peter Finney – Executive Member for Environment and the Economy, Dorset County Council

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Policy Index

1 Introduction

1 Introduction

What is this document?

1.1 This is the Bournemouth, Dorset and Poole Minerals Strategy.

1.2 The Minerals Strategy sets out the vision, objectives, spatial strategy and policy framework for minerals development in Bournemouth, Dorset and Poole. It considers the need to contribute to national, regional and local mineral requirements and seeks to balance these needs against social, environmental and economic considerations.

Status and Use of the Minerals Strategy

1.3 The Bournemouth, Dorset and Poole Minerals Strategy forms part of the development plan for all the District, Borough and Unitary authorities within Dorset.

1.4 When using this plan, note that:

- the Minerals Strategy is designed to be read as a whole
- the Minerals Strategy should also be read in conjunction with any relevant adopted local planning policy documents
- national policy guidance also applies.

1.5 The Minerals Strategy replaces a number of saved minerals policies of the Dorset Minerals and Waste Local Plan (1999). Appendix 2 provides a list of those policies which are to be replaced.

1.6 Areas designated by policies in the Minerals Strategy are defined on the Policies Map. This plan is attached to the Minerals Strategy at Appendix 3. Additional illustrative maps are contained within this document to show areas designated in greater detail.

Background

1.7 The Minerals Strategy is one of a number of development plan documents that make up the Minerals and Waste Local Plan. The minerals documents include:

- the Minerals Strategy, which includes development management policies;
- the Mineral Sites Plan;
- the Adopted Policies Map.

1.8 Other documents within the Minerals and Waste Local Plan are or will be:

- the Statement of Community Involvement, which sets out the standards and methods of consultation to be used in preparing development plan documents and determining planning applications;
- Dorset County Council's Minerals and Waste Development Scheme, which sets out the programme for preparing the Minerals and Waste Development Framework;
- Annual Monitoring Reports;
- the Waste Plan

Preparation of this document

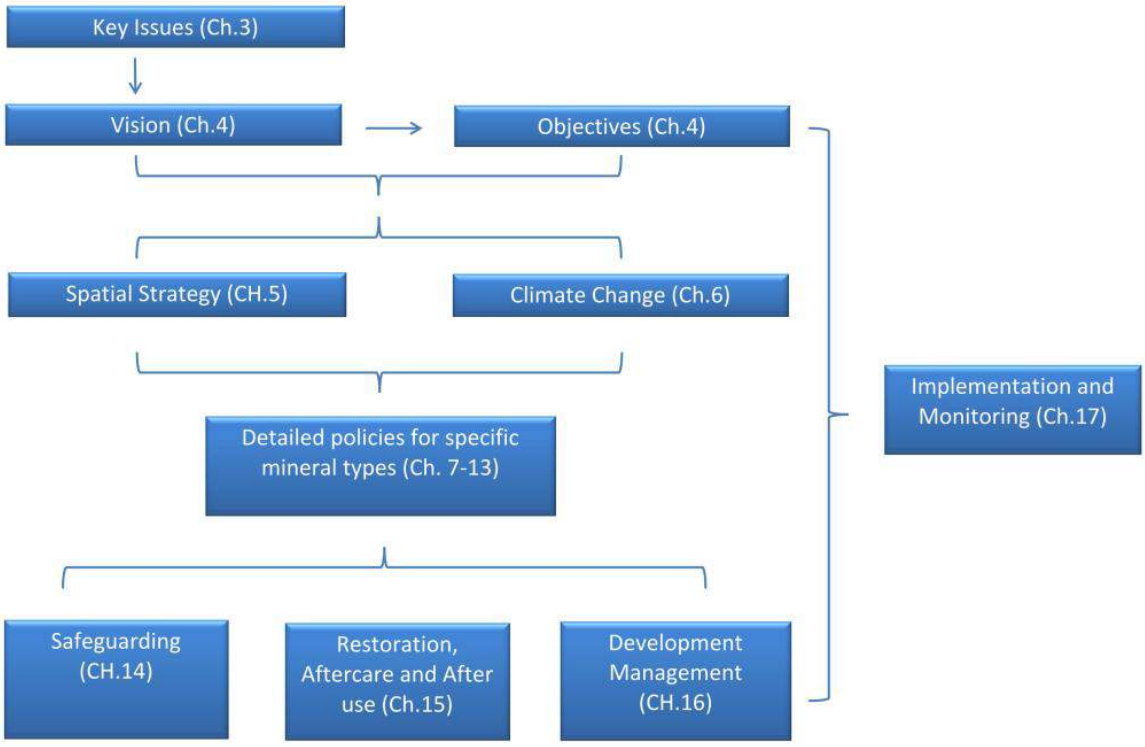
1.9 This document has been developed following ongoing stakeholder discussions and evidence gathering from an early stage. The Minerals Strategy has also been developed taking into consideration:

- the outcomes of an independent review carried out by the Planning Officers Society;
- comments made during formal consultations and informal meetings/site visits;
- the outcomes of the Sustainability Appraisal*;
- a Conservation Regulations Assessment (CRA)*;
- a Strategic Flood Risk Assessment;
- further evidence from detailed studies, surveys and reviews;
- changes as a result of meetings with specialist bodies and advisors, in particular industry representatives and development management colleagues, particularly in determining deliverability;
- the detail of policies, working particularly with internal specialist consultees.

* Further detail on these overarching appraisals/assessments can be found at the end of this chapter. Other more specific evidence/assessments are referred to throughout this document as appropriate.

1.10 The Minerals Strategy aims to address a series of key issues (see Chapter 3). The key issues are translated into six objectives (see Chapter 4) which are delivered through the implementation of the spatial strategy (see Chapter 5). Figure 1 illustrates the relationship between the key issues, objectives, spatial strategy and more detailed aspects of the Minerals Strategy.

Figure 1 Summary Diagram: Minerals Strategy



Mineral Sites Plan

1.11 The Mineral Sites Plan, once adopted, will identify specific sites for future minerals development. It will be a separate development plan document from the Minerals Strategy but will be driven by the strategies and site assessment criteria set out within it.

1.12 Work began on the preparation of the Mineral Sites Plan in July 2007. A 'call for sites' was issued to industry, landowners and agents and as a result a number of potential mineral sites were put forward for consideration. These were consulted on between October and December 2008. Work is ongoing to gather further details and fully assess these sites and any others that emerge. This work is useful evidence to support the deliverability of the Minerals Strategy and as such has been referred to where appropriate within this document.

What time period will the Minerals Strategy cover?

1.13 This plan will cover a period from adoption up to the end of 2028. The end date will influence the level of provision that will need to be made for the supply of minerals.

1.14 Although the Minerals Strategy covers a period up to the end of 2028, it is likely that a review will take place well before this time. The National Planning Policy Framework also allows for the Plan to be reviewed in whole or in part allowing it to remain up to date and respond quickly to changing circumstances. The Minerals and Waste Development Scheme sets out which minerals and waste development documents will be produced and the timetable for their preparation. This will include details of any review of the Minerals Strategy.

Overarching Assessment of the Minerals Strategy

1.15 The Sustainability Appraisal and the Conservation Regulations Assessment have been important to the development of the policies contained within the Minerals Strategy and the process of undertaking each is set out below.

Sustainability Appraisal

1.16 Delivering sustainable development is central to spatial planning. Sustainability appraisal is a means of assessing the potential impact of the Minerals Strategy and its objectives and policies on the environment, the economy and society. The appraisal is based on a framework of sustainability objectives and indicators devised through our sustainability appraisal scoping report.

1.17 Sustainability appraisal has been undertaken at each key stage in the preparation of the Minerals Strategy in order for the results to be fed into the developing policies. The full Sustainability Appraisal report is available on the council's website www.dorsetforyou.com/mcs

1.18 The impact of the Minerals Strategy policies will be monitored against the sustainability objectives. Monitoring information will be published on the council's website. These effects will influence future reviews of the policies.

Conservation Regulations Assessment

1.19 The Conservation of Habitats and Species Regulations (2010) ('the Regulations') require that a competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects), and (b) is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications for that site in view of that site's conservation objectives [1].

1.20 A Conservation Regulations Assessment has been produced for the Minerals Strategy and is available from www.dorsetforyou.com/mcs

1.21 Screening of options and proposed policies took place in preparing the Draft Minerals Core Strategy, the Revised Draft Minerals Core Strategy and the Pre-Submission Draft Minerals Core Strategy.

1.22 The recommendations made in the Conservation Regulations Assessment were incorporated into the Minerals Strategy.

1 Regulation 61 (1) - Conservation of Habitats and Species Regulations (2010)

2 Background

2 Background

2.1 Minerals make an important contribution to our society and play a role in the Government's drive for sustainable communities. They provide the material needed for the development of the economy, through the construction of homes and buildings and hard infrastructure, as well as through their use in the manufacture of products and their use in fuels.

2.2 Dorset has a wide range of mineral types required locally, nationally and even internationally. The extractive industry provides economic benefits to the County, enhancing local economic development. It offers employment both directly for those working in the quarries and mines or the transport system and indirectly in other industries in the supply chain or that support the workforce.

2.3 Dorset's wealth of building stone resources make a positive contribution to the local landscape, maintaining Dorset's intrinsic character and historic buildings both within Dorset and elsewhere.

2.4 Minerals are a finite resource available only in certain locations. The Government recognises that the increased use of recycled and secondary aggregates is vital to ensure the most sustainable use of resources. Extraction of primary aggregates will still be necessary to underpin sustainable economic development.

2.5 Unlike most other forms of development, mineral extraction can only take place where the mineral occurs. The spatial distribution of mineral resources, and therefore the potential for workings, is dictated first and foremost by geological considerations rather than demand. While the locations of minerals in some cases coincide with important habitats or attractive landscapes, there is usually some degree of flexibility about the precise location of new workings, particularly for the more widespread aggregates.

Policy Context

National Policy

2.6 The Minerals and Waste Development Framework is prepared under the Planning and Compulsory Purchase Act 2004 (as amended).

2.7 At the national level, Government policy and guidance is primarily provided by the National Planning Policy Framework (NPPF) and the Planning Practice Guidance web based resource. All relevant information was taken into account in the preparation of the Minerals Strategy.

2.8 The NPPF sets out a number of objectives for minerals, which include:

- planning for a steady and adequate supply of aggregates;
- liaison between mineral planning authorities;
- maintaining landbanks for primary aggregates and other minerals; and
- safeguarding mineral resources and the minerals supply infrastructure.

Regional and Subregional Policy

2.9 The Localism Act received Royal Assent on 15th November 2011. The Act provided the Secretary of State with power to make an order to revoke the regional strategies and saved structure plan policies. Whilst at the time of preparing the Minerals Strategy the regional strategy and saved structure plan policies were in force, and have been duly considered, so was the Government's intention to revoke them. The evidence underpinning the Draft Regional Spatial Strategy for the South West was an important consideration for the Minerals Strategy but the further development of the Strategy also needed to be justified with up-to-date evidence having regard to national, sub-national and local considerations.

2.10 In particular, there remains uncertainty over future rates of overall housing and economic growth in Dorset and surrounding counties. It may be assumed, however, that any emerging spatial development strategies for Dorset will continue to reflect the principles of sustainable development and seek to concentrate a major element of growth in and around the main urban centres of south east Dorset.

2.11 The impact of the abolition of the regional planning policy framework will be critical for the Minerals Strategy in terms of regional and sub-regional aggregates apportionments. Further information is contained within Chapter 7. There is no similar regional guidance on provision for any other minerals found in Dorset.

2.12 The Mineral Planning Authority is committed to continued and regular discussions with Mineral Planning Authorities within the south west and Hampshire to the east. These authorities are seen as important to the success of the Minerals Strategy and the subsequent Mineral Sites Plan. Cross-boundary issues and mineral movements have been fully considered in developing policies. [(2)]Data has been gathered on movements of aggregates and ball clay, as outlined in chapters 7 and 8. Close regard to this will be made to ensure that steady and adequate supplies are maintained.

Local Policy

2.13 When planning for an adequate and steady supply of minerals, it is necessary to take account of anticipated development both within the plan area and in other locations which might place a demand upon Dorset's minerals. It is important to recognise that the use of nearby or locally won mineral supplies can help to reduce transport distances. There is a business imperative for reducing travel distances of aggregates used in construction because these are high in bulk but relatively low in value. This tends to restrict the extent of the market for much of sand and gravel production to a distance of no more than 40 miles from the source. Consequently, the majority of demand for aggregates will emanate from neighbouring areas. Other products such as stone are often more specialised in their application and so demand is less reliant upon planned development within and adjoining the plan area.

2 See Submission Document 9: Local Strategy Statement

2.14 There are two key questions which consideration of development levels helps to address:

- Are there any proposals in adopted or emerging development plans which would be likely to sterilise significant minerals reserves within the plan area?
- Are the levels of growth planned locally and beyond likely to result in a marked increase in minerals demand over and above that which is planned for?

2.15 Ongoing liaison with local authorities in Bournemouth, Dorset and Poole will ensure that planned development is unlikely to sterilise critical minerals supplies and that safeguarded areas take account of factors which would limit mineral extraction. Chapter 14 of the Minerals Strategy also includes a more formal means of consultation on planning applications. Minerals Consultation Areas are established within which district/borough councils will be required to consult the Mineral Planning Authority if an application is made for non-minerals development that could lead to sterilisation of mineral resources.

2.16 Development planned in other areas can also have a bearing upon demand for minerals, especially for sand and gravel. The neighbouring areas of Devon, Somerset, Wiltshire and Hampshire are most relevant as they account for the majority of 'external' demand for sand and gravel.

2.17 Whilst there is potential for growth within Dorset and beyond, it does not represent a marked increase from previous growth assumptions which would have informed regional apportionment figures for aggregates. This provides a good degree of confidence that the provision for minerals set out in this strategy should be sufficient to cope with planned growth in and around the area.

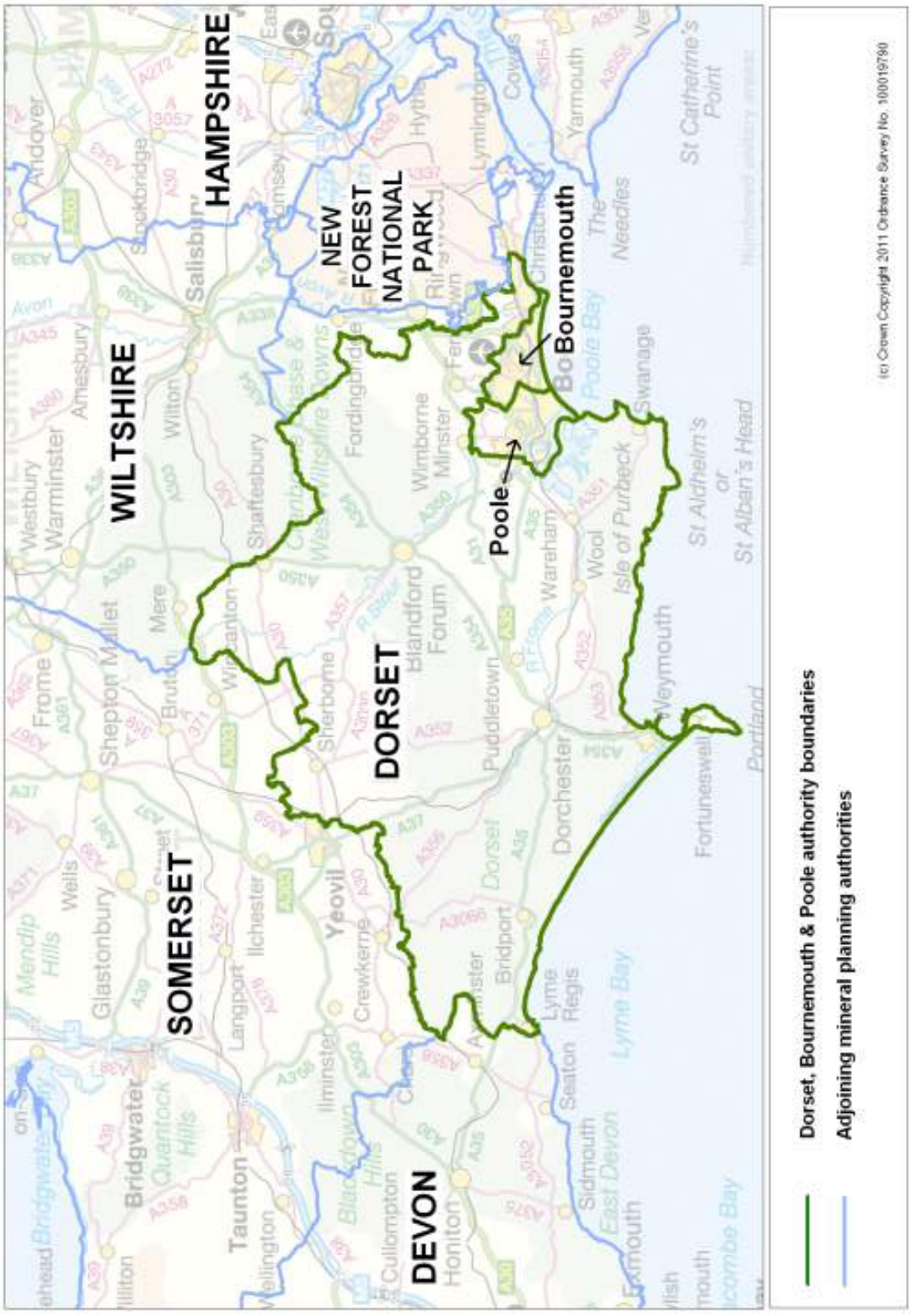


Figure 2 Dorset in context

Community Strategies

2.18 The purpose of community strategies is to identify issues and opportunities important to local communities and to identify actions that will be taken or measures that will be put in place to address these. Community strategies are therefore relevant to local spatial planning. They may not be so relevant in the future with the introduction of Neighbourhood Plans.

2.19 In Dorset, community strategies have been prepared for Dorset, Bournemouth and Poole, as well as each district council. North Dorset also contributes individual community strategies based on market towns, which come together within an umbrella community partnership. Each of these community strategies have been reviewed and Table 1 summarises the main issues and objectives relevant to minerals planning.

Table 1 Objectives of Community Strategies Relevant to Minerals Planning

Issues	Objectives	Relevance to the Minerals Strategy
Protect Dorset's environment	Protect and enhance biodiversity Conserve landscape character Develop in suitable areas Support measures to reduce flooding and coastal erosion Provide access to the countryside	Potential for conflict between minerals extraction and the protection of Dorset's Environment. There is however the opportunity, through minerals extraction, to achieve some benefits through restoration.
Reduce transport impacts	Reduce congestion Promote sustainable transport options	Potential for conflict between minerals transportation and the objective to reduce transport impacts.
Provision of housing and infrastructure	Provide a variety of housing	Extraction of materials for use in construction, delivered through this strategy, is essential to achieving this objective.

Maintain and enhance the quality of the built environment	Preserve built heritage Supply locally sourced materials	Provision of local stone, delivered through this strategy, is essential to achieving this objective.
Encourage sustainable economic development with minimum use of resources	Support creation of jobs Support and promote tourism and land-based industries	Minerals extraction will support the creation/maintenance of jobs however there may be potential conflicts with tourism and other industries through the impacts of extraction.
Efficient use of natural resources	Reduce water use Increase recycling Increase use of recycled materials and use of materials from sustainable sources	Direct conflict through the extraction of primary aggregates. There will be a contribution through increased aggregates recycling.
Reduce carbon footprint	Reduce emissions	Potential for conflict between minerals extraction and the reduction of emissions.

3 Spatial Characteristics

3 Spatial Characteristics

Spatial Portrait

3.1 Dorset is located on the south coast of England. It is a largely rural county with large expanses of highly valued countryside. The total area of the county, including Bournemouth and Poole, is 265,273ha, which is home to a population of 710,500. 62% of the population lives in the South East Dorset conurbation, centred on Bournemouth and Poole. Weymouth (population: 50,900) is the next largest urban area. Elsewhere the county has a relatively sparse population.

3.2 The quality and variety of the landscape of Dorset is recognised through the designation of much of the county as Areas of Outstanding Natural Beauty (AONB), whilst its long and largely unspoilt coastline is protected as Heritage Coast and a World Heritage Site (with East Devon). In ecological terms, the county has a rich diversity of habitat types, including chalk downland, lowland heath, river valleys, wetland, cliffs and beaches.

3.3 A large portion of Dorset, stretching from Dorchester east to the Hampshire boundary comprises low undulating countryside, crossed by the rivers Frome, Piddle, Stour, and the Moors and Avon Valleys. It contains the surviving parts of heathland which have been greatly reduced over the years by agriculture, afforestation and urban development. The ecological importance of the heathland is outstanding, containing internationally rare plant and animal species.

3.4 An extensive swathe of chalk downland runs across Dorset from northeast to southwest and through the south of the county round Weymouth to Purbeck. It is characterised by wide, rolling, rounded hills with steep-sided valleys, and is almost entirely within the area of the two AONBs. Arable farming is the dominant use. Much of the little unimproved downland that remains on the steeper slopes are Sites of Special Scientific Interest (SSSI).

3.5 To the north west of the chalk scarp are clay vales where dairy farming is the main land use. The landscape in this area is wooded, with small fields and low hills. The main ecological value is in the deciduous woodland, hedgerows and watercourses and the remaining areas of unimproved grassland.

The main characteristics of the Plan area include:

- a valued diversity of landscapes, with 53% of the county designated as two AONBs as shown in Figure 3.

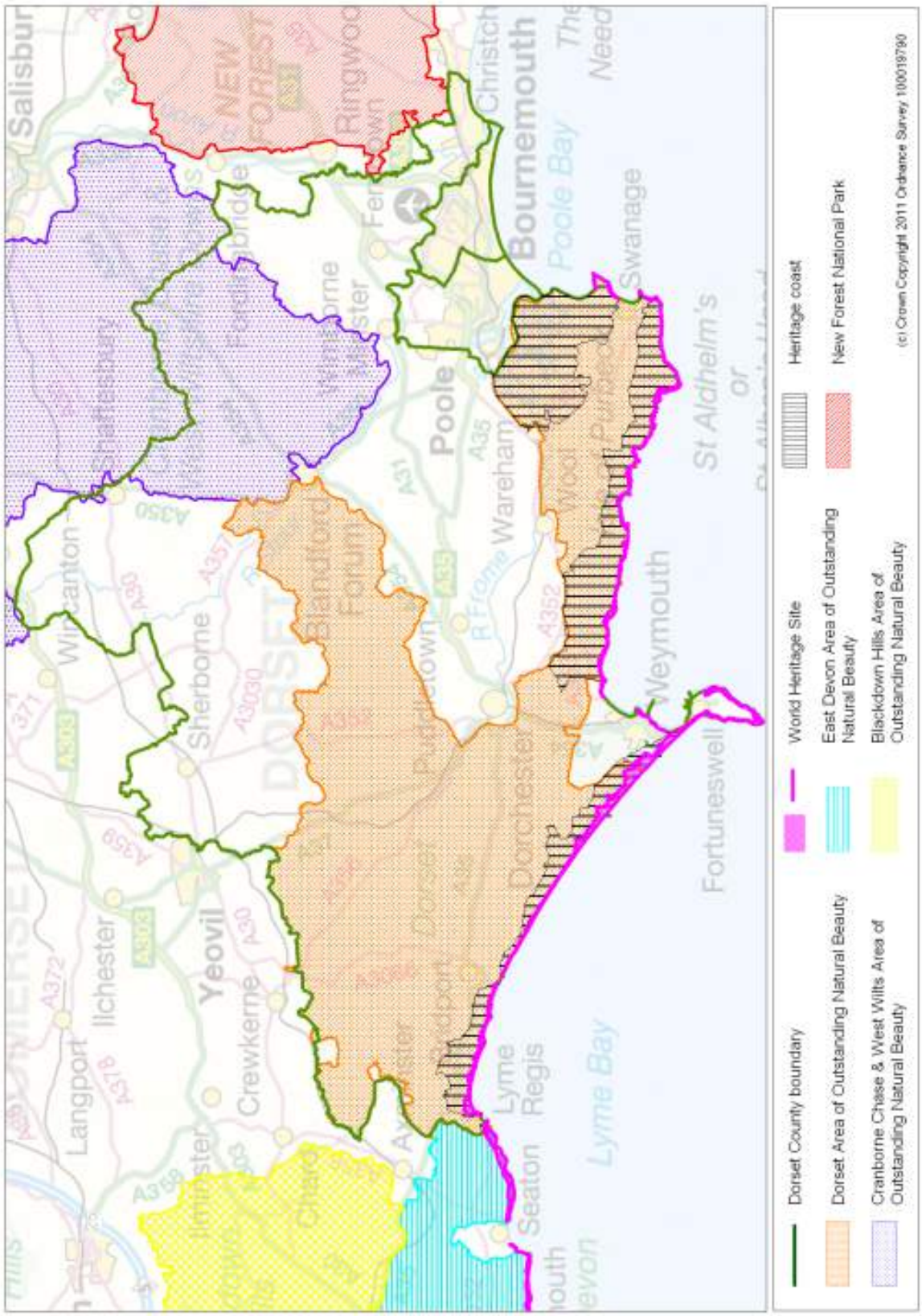


Figure 3 Landscape Designations

- the first natural World Heritage Site in the country, the Jurassic Coast, designated for its geology and geomorphology, and an extensive Heritage Coast, managed to conserve its natural beauty;
- a county containing large areas protected for their biodiversity interest, with almost 20,000 hectares designated as SSSI. Furthermore, 11% of the UK's rare lowland heath is located in Dorset and virtually all of this land is designated at a European level as a Special Protection Area (SPA), and at an international level as a Ramsar site. Much of the area is further designated across two Special Areas of Conservation (SAC). Figure 4 shows the distribution of Natura 2000 designations in the county;
- a rich heritage of prehistoric sites, conservation areas, listed buildings and historic parks and gardens;
- a wealth of wetlands, with 5% of England's reedbeds and some stunning rivers and streams. Other important wetland habitats include wet grasslands, fens and marshes. Some of Dorset's rivers are particularly special as they are chalk streams – a globally rare habitat;
- important aquifers and groundwater protection zones which are present in locations around the Plan area;
- continuing population growth, largely due to in-migration, with the South East Dorset conurbation specifically identified for housing growth;
- a stable economy driven by the diverse mix of sectors and by the balance of service and manufacturing businesses;
- an economy dominated by the South East Dorset conurbation and centred on tourism, retailing, education, advanced engineering, business services and finance. Outside the conurbation, the economy of other towns is principally focused on tourism, creative and agricultural based industries. In addition, the county town of Dorchester is largely service based;
- a network of transport routes linking the main towns. However, good quality north-south transport links are generally absent; there is poor and unreliable access to national transport networks, particularly to the north and from the western part of Dorset, towards Hampshire / London. There is also poor access to the Port of Poole due to congestion. The A31/A35 trunk road is a critical access route to the strategic network but suffers severe capacity issues, particularly at Wimborne, Ferndown, Ringwood and Bere Regis. In the west of the county this route passes through sensitive landscapes and communities, which imposes severe environmental constraints;
- important gateways to and from the South East Dorset conurbation which include Bournemouth Airport, the Port of Poole and generally adequate road and rail links to London and the south-east, but links to the north and rest of the south-west are poorer;
- three railway lines running through Dorset and further port facilities at Weymouth and Portland;
- The New Forest National Park situated adjacent to the eastern boundary of the Plan area.

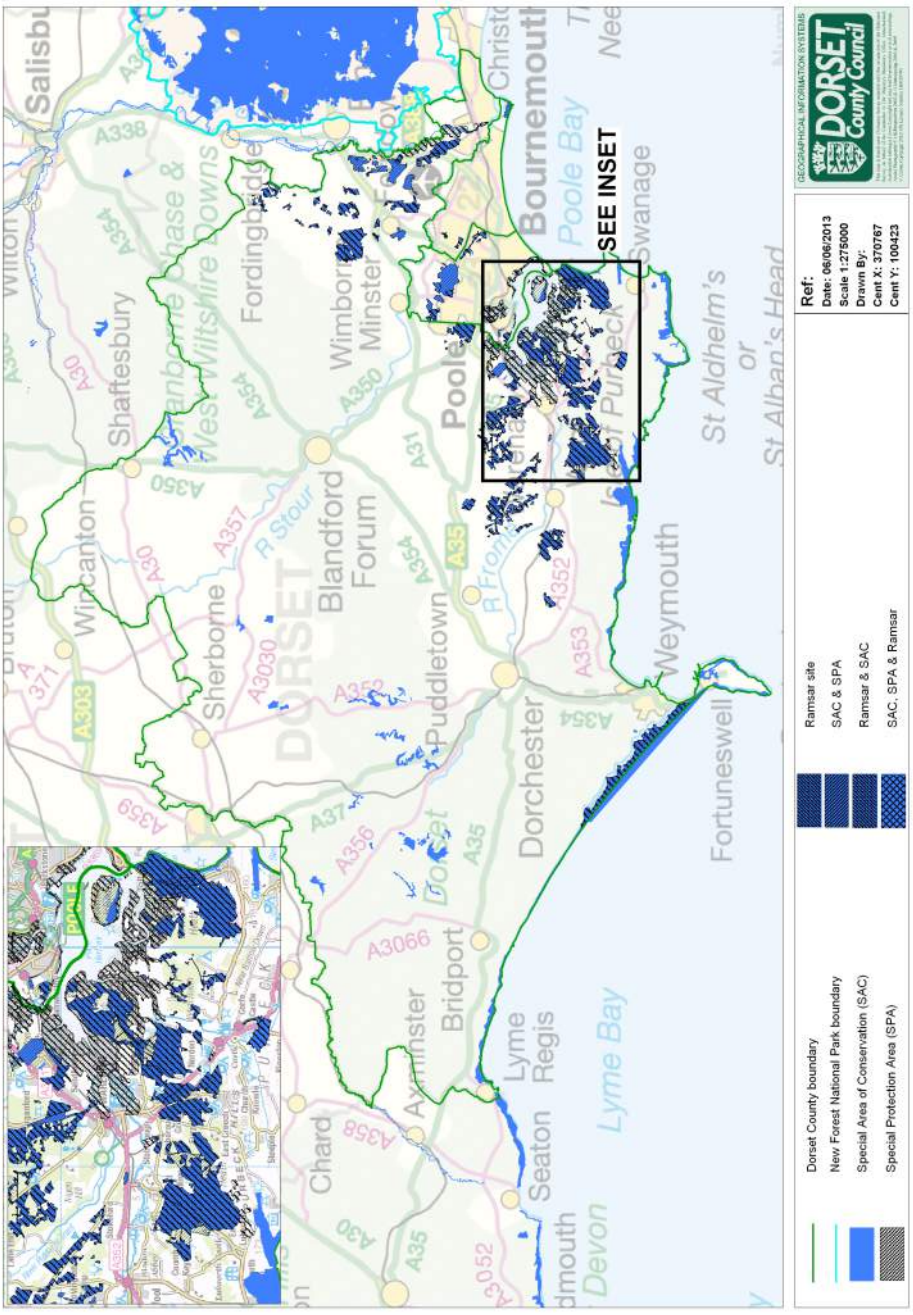


Figure 4 Natura 2000 Designations

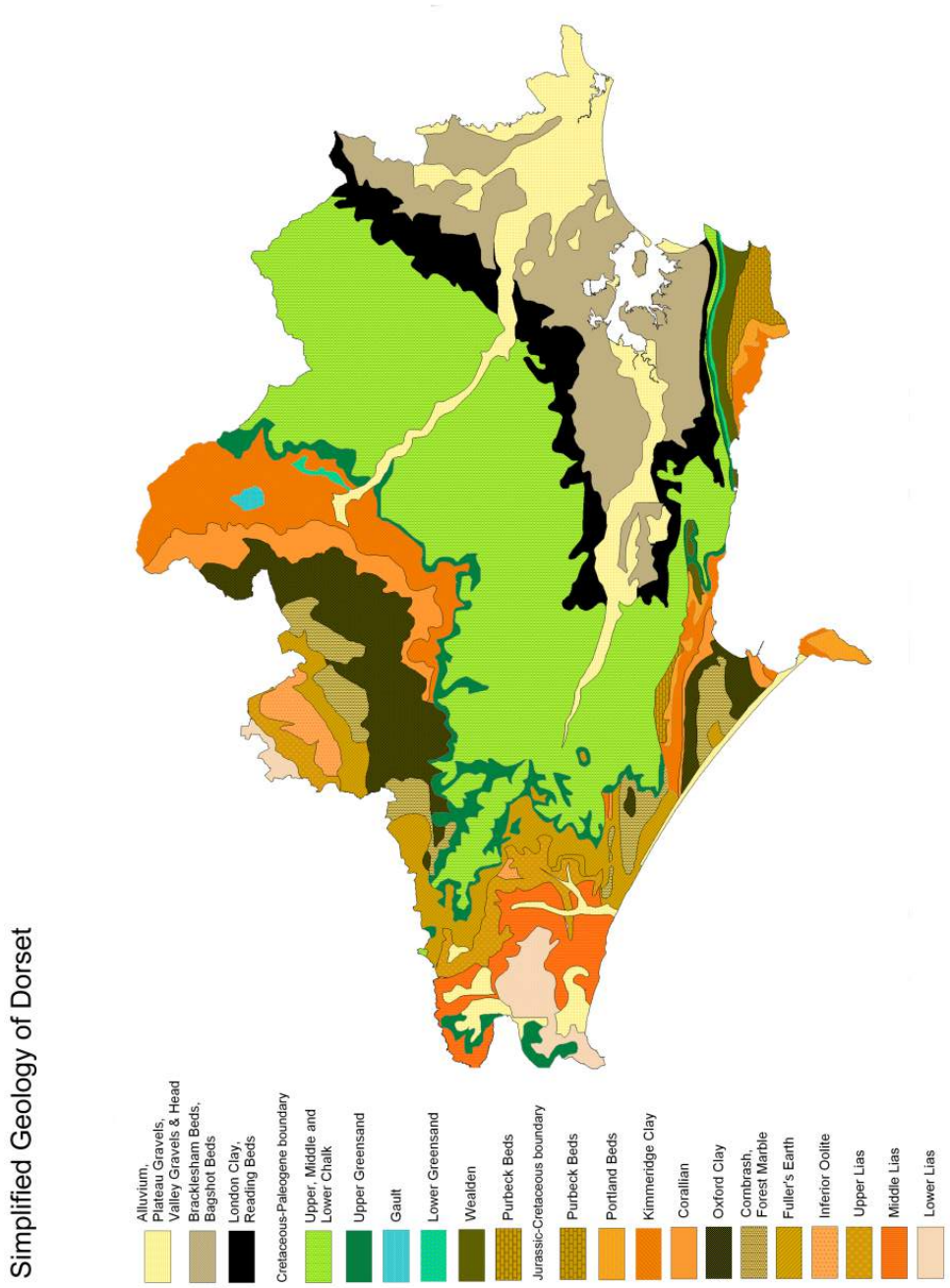


Figure 5 Simplified Geological Map of Dorset

Geology and minerals

3.6 Dorset's varied geology (see Figure 5) is a major determinant of the landscape and its character, contributing to its visual attractiveness, recreational value, ecological interest and agricultural productivity. Its geology also means that Dorset is a mineral rich county with a diverse range of resources, including some that make an important contribution to the county's economy.

3.7 As such the extraction of mineral resources is tightly constrained by the valuable landscape and nature conservation interests in the county and adjoining counties. Much of the Purbeck Stone and ball clay resource is located within the Dorset AONB and is within or close to the Heritage Coast. Purbeck Stone and Portland Stone forms part of or is in close proximity to the Jurassic Coast. Much of the sand and gravel bearing areas coincide with important landscapes and designated habitats, but much also lies in areas where there are opportunities to avoid or mitigate against the adverse impact of development by recreating habitats such as lowland heath.

3.8 The county contains deposits of both sand and gravel and underlying Poole Formation sands. The county is also a moderate producer of crushed rock, which is sourced from both Portland and Purbeck. Dorset's sand and gravel resources are largely concentrated in the South East area of the county. Urban development and population also concentrate here, and the built-up area sterilises much of the deposit.

3.9 The majority of building stones found in Dorset are limestones. The Isle of Portland provides the nationally important resource of Portland Stone. Additionally, Purbeck Stone, found in the Isle of Purbeck, is an important and distinctive local, and to some degree, national building stone resource. The quarries tend to be small-scale operations scattered about the area, and are part of the cultural and industrial heritage of Purbeck. Purbeck Marble is also found and is of national significance.

3.10 The Corallian formation, Inferior Oolite, Cornbrash and Forest Marble are found in west and north Dorset. The sandstones of the Cretaceous and Palaeogene (formerly the Tertiary) periods are found in west, north and south Dorset. Dorset's architectural heritage is largely due to the use of this variety of local stones.

3.11 Dorset contains one of only three areas in the country containing internationally important ball clay. This is located in the Wareham Basin.

3.12 The country's largest onshore oil field is found in the Wareham Basin. Permission has also been granted for one of the country's largest underground gas storage schemes at Portland.

3.13 Poor transport links present a problem, particularly for Purbeck stone and other building stones, as well as ball clay, located away from the strategic transport routes. Dorset has one wharf at Poole, handling marine dredged sand and gravel, one railhead at Wool for loading sand sent to London by train and one rail depot at Hamworthy (Poole), bringing crushed limestone from the Mendips.

Benefits of Mineral Extraction

3.14 The mineral industry in Dorset enhances local economic development by offering employment both directly for those working in a quarry or the transport system and indirectly in other industries in the supply chains or that support the workforce.

3.15 In addition, the provision of local Purbeck, Portland and other building stone maintains the intrinsic character of Dorset enabling historic and heritage buildings to be repaired or refurbished in traditional materials. New buildings can also be built in vernacular materials. It also allows traditional masonry skills to be maintained.

3.16 Although the negative impacts of mineral extraction are well documented and can include increased traffic generation, landscape, biodiversity and amenity impacts, mineral extraction has the benefit of providing positive opportunities. By working closely with the quarrying companies, new sites and extensions can be selected so that they provide benefits such as biodiversity enhancement and new recreational facilities. In Dorset, the creation of lowland heath as part of restoration schemes has been successful in a number of cases.

3.17 While there is not always going to be a choice over location, the minerals industry is encouraged to look for sites which will provide opportunities to contribute to Dorset's Biodiversity Strategy and green infrastructure network.

3.18 Finally, the increased use of recycled material extends the life of reserves and therefore results in fewer new quarries or quarry extensions being required.

Key Issues

3.19 The focus of the Minerals Strategy is to identify and resolve a series of key, strategic, spatial issues. These issues are the primary tasks that the Minerals Development Framework will need to tackle, although the Plan also addresses many other important and locally specific issues. The key issues are not necessarily specific to Dorset but their resolution will require a debate of the relevant local circumstances.

3.20 A range of issues pertinent to the Plan were developed through early stakeholder involvement. These issues were later refined through consultation. The key issues the Minerals Strategy needs to address were then defined and are set out below. The issues are explored in greater detail within the chapters that follow.

Key Issue 1

Facilitating the increased production of recycled aggregates in the most suitable locations.

Key Issue 2

Planning for an appropriate, robust and flexible level of aggregates provision having regard to demand.

Determining the most appropriate and sustainable locations for the extraction of aggregates in Dorset

Key Issue 3

Maintaining continued supply of ball clay, a mineral of national and international importance, whilst safeguarding and enhancing landscape and ecology importance.

The need to access a range of saleable clays, at one time, in order to produce blends of ball clay led by industry demand.

Key Issue 4

Identifying the most appropriate locations to maintain provision of Purbeck Stone, a building stone of national and local heritage significance, in an area of high landscape sensitivity.

The need to access the range of Purbeck Stone beds in order to meet demand whilst establishing a scale of extraction appropriate to the sensitive area.

Key Issue 5

Maintaining plandrovision of Portland Stone for its heritage significance and use as a principal building stone in an area extensively and historically quarried.

The impact of surface quarrying on the landscape, environment and local amenity due to lack of control over operations, including restoration, with virtually all of the permitted area covered by one old planning permission with minimal conditions.

Key Issue 6

Determining which minerals and minerals extraction/processing/transportation sites should be safeguarded and how should this be achieved.

Key Issue 7

Maintaining a continued supply of onshore hydrocarbons from within licensed areas, whilst safeguarding and enhancing landscape, areas of ecological importance and amenity interests.

Key Issue 8

Achieving high quality restoration, at the earliest possible opportunity, as an integral part of all minerals development. Ensuring restoration and afteruse is considered within the context of, and contributes to, the surrounding landscape character and local ecological interests.

4 Vision and Objectives for Mineral Extraction in Dorset

4 Vision and Objectives for Mineral Extraction in Dorset

4.1 The vision for the Minerals Strategy has been developed through a combination of stakeholder forum debate and structured consultation periods. The vision reflects the key issues that the Minerals Strategy will deal with in relation to the provision of aggregates, ball clay, Purbeck and Portland Stone, onshore oil and gas (hydrocarbons) and recycled aggregates.

A Vision for Mineral Extraction in Dorset

By 2028, the supply of minerals from and into Dorset will have supported Bournemouth, Dorset and Poole's continuing economic and population growth (which will be concentrated in South East Dorset) and the development of sustainable communities.

An adequate and steady supply of Dorset's minerals will have been secured efficiently and in environmentally acceptable ways.

The plan will have supported the sustainable production of oil and gas and the extraction of aggregates and ball clay.

Continued provision of building stones of heritage importance, including Purbeck and Portland Stone, will have been made. Quarries across the Purbeck plateau will be suited to their immediate, distinctive, limestone landscape and Portland Stone working will have seen a shift to underground mining, with the most sensitive areas of the island having been protected from surface quarrying.

The production and use of higher quality recycled aggregates as a substitute for primary aggregates will have increased.

The above will have been achieved whilst protecting local communities, enhancing the places in which people live, and protecting and enhancing the area's unique natural and built environment, including the AONBs, the Jurassic Coast World Heritage Site, the internationally and nationally designated ecological and geological sites and Dorset's many heritage assets.

At the end of the plan period, mineral workings in Dorset will be making their contribution to the mitigation of and adaptation to climate change through the efficient use of resources, positive restoration of worked and completed sites, the sustainable transportation of mineral resources and the provision of materials for flood defences and coastal protection and stability.

4.2 The remainder of this plan explains the strategy for delivering this vision. The Minerals Strategy should be based on a set of clear objectives for minerals development. The objectives help to implement and deliver the spatial vision and are translated into a spatial strategy and core policies.

Objective 1

To support the economy of Dorset through the steady supply of aggregates, ball clay and hydrocarbons. To contribute to the development of sustainable communities by securing an adequate and steady supply of Dorset's minerals required to construct their infrastructure and buildings and to manufacture the goods they require.

Objective 2

To strengthen the distinctiveness of Dorset's built environment by ensuring the supply of local sources of building materials including Portland and Purbeck Stone.

Objective 3

To ensure the most efficient and appropriate use of all resources through:

- the prudent and sustainable use of minerals
- recycling of construction and demolition waste as aggregate, and the production and use of higher quality recycled aggregates as a substitute for primary aggregates
- encouraging the best use of high quality minerals for the purposes for which they are most suitable and for which there are no more sustainable alternatives.

Objective 4

To maximise the opportunities for environmental enhancement offered through the restoration of worked sites and outside worked areas to enhance Bournemouth, Dorset and Poole's unique natural environment, historic environment and potential for recreation. This will be achieved at the earliest possible opportunity.

Objective 5

To ensure that adverse impacts of mineral working on the environment, local communities, businesses and tourism are minimised and that Natura 2000 sites are protected and enhanced appropriately in accordance with the Habitats Regulations.

Objective 6

To prevent the unnecessary sterilisation of valuable mineral resources and negative impacts of incompatible development on existing minerals operations or facilities.

5 The Overall Strategy for Minerals Provision

5 The Overall Strategy for Minerals Provision

5.1 One of the key features of the planning system is to ensure that the spatial aspects of development are properly considered. The main purpose of the Minerals Strategy is to plan for sufficient minerals extraction and associated development to meet the needs of the economy and society, whilst minimising impacts on environmental assets and amenity.

5.2 The Government is committed to ensuring that the planning system does everything it can to support sustainable economic growth and a sustainable future. Planning must operate to encourage growth and not act as an impediment. At the heart of the planning system, reflected in the NPPF, is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan making and decision taking. New development should be planned for positively and individual proposals approved wherever possible, within a timely manner.

5.3 The Minerals Strategy has been prepared using the best available evidence to assess reserves and future demand whilst building in sufficient flexibility to respond to changing circumstances without the need for policy review.

5.4 To achieve this, the Minerals Strategy identifies in general terms where and how much mineral development is to take place within the plan period. The spatial strategy explained in this chapter underpins the approach taken. The detail and justification for the spatial strategy is provided in the relevant mineral chapters which follow.

5.5 In the case of minerals planning, any strategy is constrained by the fact that minerals can only be worked where they occur and some resources are sterilised by other development. The options therefore for a spatial strategy for mineral extraction and associated development are prescribed to a large extent by the geological distribution of mineral resources within Dorset.

5.6 The Spatial Strategy is set out below and is illustrated on the Key Diagram (Appendix 4).

Spatial Strategy

i. **Providing an adequate and steady supply of a range of minerals** - Dorset has a wide range of mineral types, including aggregates, clay, building stone and industrial and energy minerals some of which are unique to the county. With each mineral type comes a different set of issues and strategies although generally it is intended to continue supply unless this would result in unacceptable environmental impacts. Cross boundary mineral movements, recycled aggregates and marine dredged sand and gravel make an important contribution to a sustainable supply of minerals. Safeguarding will be the tool to ensure that mineral resources are protected from sterilisation by incompatible development.

ii. **Providing a continued supply of aggregates** - The continued extraction and supply of sand and gravel and crushed rock is strategically important to the construction industry both in Dorset and beyond. Around 50% of the sand and gravel extracted in Dorset is exported to other authorities in the south west and to the south east of England. A similar amount of sand and gravel and crushed rock is brought into Dorset from surrounding counties. Work has been undertaken to determine the most appropriate level of provision of aggregates in order to achieve continuity of supply. Provision will be made to maintain a landbank of permitted sand and gravel reserves equivalent to at least 7 years' worth of supply over the period to 2028, based on the current agreed local annual supply requirement. In 2011, this was 1.58 million tonnes of sand and gravel, equating to approximately 9.36 million tonnes over the plan period, through the identification of specific sites from within two resource blocks. These resource blocks identify the spatial distribution of the sand and gravel resource, excluding major constraints. With regards to crushed rock the existing landbank (held in sites on Portland and Purbeck) is adequate to meet demand at the rate of the agreed local annual supply requirement (in 2011, 0.27 million tonnes per annum) up to 2028 and therefore no new sites will be identified unless exceptional circumstances can be demonstrated.

i. **Maintaining an adequate and steady supply of ball clay** - Ball clay is an industrial mineral which is of national and international importance because of its special qualities and rare occurrence. Its presence within the Wareham Basin (one of only three locations in the country) coincides with heathlands of European importance and the Dorset AONB. Further extraction of ball clay is supported to ensure provision of the range of grades demanded by industry, within environmental constraints. Provision will be made for up to 2.5 million tonnes of ball clay during the plan period, through the identification of specific sites in the Mineral Sites Plan. Extraction will be directed towards the 'Areas of Less Sensitivity' although to ensure an adequate and steady supply of the range of grades of clay, sites will be required within the wider ball clay consultation area.

ii. **Maintaining an adequate and steady supply of Purbeck Stone from within an area of search** - Purbeck Stone is another mineral of national importance. The entire resource is situated within the Dorset AONB. Future extraction of the range of Purbeck Stone beds is supported in order to provide an adequate and steady supply. This is particularly important for heritage purposes. New quarries should however be generally dispersed and designed to respect the character of the distinctive limestone landscape. Provision will be made for an average of at least 20,000 tonnes per year, taking into account landscape, environmental and other constraints, equating to 102,000 tonnes in total over the plan period. This provision will be made through a combination of the identification of sites in the Mineral Sites Plan and a criteria-based approach within a defined area of search

iii. **Encouraging a shift from surface quarrying of Portland Stone to mining** - Quarrying of the nationally important Portland Stone is a long established industry and continued extraction is supported. Due to the history of the consents, there have been continuing impacts on the environment and local amenity. Whilst there are existing permitted reserves of dimension stone sufficient to cover the plan period, mining as an alternative to surface quarrying is actively encouraged in order to minimise impacts. A strategy for seeking improvements to the old planning permission and directing working away from sensitive areas where possible is set out. This is illustrated spatially through the identification of areas where it is considered that surface quarrying would create a significant impact on the environment and/or amenity and by highlighting potential areas for mining.

Delivering the Strategy

5.7 The Mineral Sites Plan will develop this Strategy further by identifying specific sites. The Mineral Sites Plan will provide 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.

5.8 Until the Minerals Sites Plan is adopted the policies in this plan will provide guidance to determine applications as they come forward.

Presumption in favour of sustainable development

5.9 The National Planning Policy Framework (NPPF) sets out a presumption in favour of sustainable development which places an onus upon planning authorities to take a positive and proactive approach to development that improves economic, social and environmental conditions in the area. The Minerals Strategy has been prepared having regard to the importance of planning positively to support sustainable development in accordance with the NPPF. This is reflected in Policy SS1.

Policy SS1 - Presumption in Favour of Sustainable Development

When considering development proposals the Mineral Planning Authority will take a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework (NPPF). It will always work proactively with applicants jointly to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social and environmental conditions in the area.

Planning applications that accord with the policies in this Local Plan (and, where relevant, with polices in Neighbourhood Plans) will be approved without delay, unless material considerations indicate otherwise.

Where there are no policies relevant to the application or relevant policies are out of date at the time of making the decision then the Mineral Planning Authority will grant permission unless material considerations indicate otherwise – taking into account whether:

- any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the NPPF taken as a whole; or
- specific policies in that Framework indicate that development should be restricted.

Identification of Specific Sites in the Mineral Sites Plan

5.10 Policies for the provision of aggregates, Purbeck Stone and ball clay include an amount of material that will be provided for in order to maintain supply. This provision will be made up of permitted reserves and specific sites identified in the Mineral Sites Plan.

5.11 Specific sites, identified in the Mineral Sites Plan will be shown on an Ordnance Survey map base with the specific site boundaries drawn. Unless otherwise stated within this document, these sites will be preferred for mineral extraction and/or aggregates recycling over other non identified sites and planning applications for development of specific sites are likely to be considered as acceptable. Specific sites will be based on the spatial strategies included in the Minerals Strategy, subject to further assessment of potential impacts.

5.12 Sites will be assessed by the Mineral Planning Authority using the deliverability questions and site selection criteria set out in Appendix 1 of this document. Careful site selection is a key issue for sustainable development - the need for the extraction of mineral must be assessed against impacts on the environment and the local community. The criteria have been developed through consultation as a means of measuring the potential impacts of each site in a consistent manner and will be used as a tool to carry out the sustainability appraisal process. The 25 criteria cover a range of potential impacts, including, for example, landscape, air quality, economic development and impacts on settlements.

5.13 Where necessary, potential sites will be subject to appropriate assessment under the Conservation Regulations. Detailed assessment of ecological and hydrological implications on European nature conservation sites of mineral extraction will be necessary to support sites to be taken forward into the Mineral Sites Plan. The Mineral Sites Plan as a whole will also be subject to Conservations Regulations Assessment and Sustainability Appraisal, which will include assessment of cumulative impacts.

5.14 Applications for minerals development for those sites identified within the Minerals Sites Plan will be permitted provided that the application demonstrates to the satisfaction of the Minerals Planning Authority that the proposal complies with the relevant policies of this Plan. Applicants will also be encouraged to enter into pre-application discussions to ensure that, as far as possible, applications will be acceptable. Discussions should be undertaken both with the Mineral Planning Authority and other stakeholders including the local community as appropriate.

5.15 The Mineral Planning Authority has reasonable confidence that sites will be identified and permitted to maintain supply of minerals and achieve the levels of provision set out in the various polices. Chapter 17 outlines the proposed mechanisms for monitoring the effectiveness of the Minerals Strategy. If monitoring shows that the identified need is unlikely to be delivered, it may become necessary to review the strategy/policies.

Sites Not Identified in the Mineral Sites Plan

5.16 It is anticipated that the Mineral Sites Plan will be able to identify sites for the extraction of aggregates. However, for other minerals such as Purbeck Stone and ball clay, it is acknowledged that it may not be possible, for geological reasons, to identify sufficient sites to meet the need for all grades of stone/clay for the plan period. Where sufficient reserves cannot be identified the relevant chapters contain guidance on how to deal with applications for sites that would make up any shortfall in provision. When dealing with these applications consideration will be given to permitted reserves and allocated sites in order to determine whether there is a need for further sites and to assess any potential cumulative impacts of the development. In the case of aggregates the landbank will be an important indicator of need.

5.17 Where sites come forward that are not identified within the Mineral Sites Plan they will need to comply with all the relevant policies within this plan. The specific minerals policies and more general policies contained within the Minerals Strategy provide a sound basis for assessment. Any applications for sites that are not identified in the Mineral Sites Plan must be supported by a satisfactory level of evidence. It would be in the applicant's best interests to provide evidence that they have applied the site selection criteria to their proposed site.

Policy SS2 - Identification of Sites in the Mineral Sites Plan

The Mineral Planning Authority will use the Mineral Sites Plan as the vehicle for the identification of specific sites wherever possible, having regard to the policies in the Minerals Strategy, the site selection criteria and the presumption in favour of sustainable development as set out in the National Planning Policy Framework (NPPF).

Specific sites will be where viable mineral resources are known to exist, where landowners are supportive of mineral development and where any planning applications made are likely to be acceptable in planning terms.

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.

6 Climate Change

6 Climate Change

Introduction

6.1 Climate change is creating the biggest challenge yet to the plan area's environment, and the way of life of its residents now and in the future. There is widespread agreement that climate change is happening and is strongly influenced by human behaviour. Urgent action is needed to alter this behaviour and to consider how to adapt to the changes that are predicted. The main human influence on global climate is emissions of key greenhouse gases. Carbon dioxide (CO_2) is the main greenhouse gas, mostly derived from the combustion of fossil fuels for energy generation and transport. There are important linkages between climate change and minerals planning, as described in this chapter.

Addressing the potential changes through minerals planning

6.2 Projected changes in climate in the South West include warmer drier summers, wetter winters and more frequent extreme weather events such as storms and heat waves. It is estimated that by the end of the plan period the sea level off Dorset could be some 10-15 cm higher in 2030 than it was in 1990 [(3)]. There is likely to be increased coastal erosion, flooding and reduced water supply with potential changes to cropping patterns and species distribution.

6.3 There are two key aspects of climate change that are relevant to minerals planning:

a. reducing carbon emissions; and
b. preparing/providing for the effects of climate change.

6.4 Much of the discussion around climate change is about reducing carbon emissions, but preparing for the effects of climate change is just as important. Planning for the provision of the minerals required by our communities must include achieving lower carbon emissions and greater resilience to the impacts on climate change.

6.5 The Minerals Strategy addresses both these issues in various ways, including:

a. encouraging the reduction of transport of minerals by road and thereby reducing carbon emissions;
b. ensuring that mineral workings do not increase the risk of flooding;
c. where practicable, increasing flood storage capacity;
d. providing opportunities for the provision of winter water storage through quarry reclamation;
e. encouraging the mining of Portland Stone as opposed to quarrying – mining has been shown to produce less CO_2 than quarrying;
f. providing stone that can be used in sea defences and aggregates for use in flood defence works, where appropriate;

3 Comprehensive Climate Change Risk Assessment September 2010: Dorset County Council & Dorset Districts & Borough Councils.

g. encouraging the increased provision of recycled aggregates, and minimising the impacts of extraction of primary aggregates;
h. providing opportunities, through restoration schemes, to benefit biodiversity with particular emphasis on the creation of habitat for species affected by climate change; and
i. encouraging the growing of bio-mass energy crops as a possible after-use on mineral development sites, subject to suitability in the environment.

Climate change and new minerals development

6.6 Minerals are essential in maintaining our economy and lifestyle, but their extraction, processing and transport are probably responsible for about 7% of total global energy consumption. In addition, the process of restoring a site and the restored site itself have the potential to affect and be affected by climate change. It was estimated that in 2007 the UK mineral industry produced about 4 million tonnes of CO_2, approximately 0.6% of the UK's total greenhouse gas production for that year [(4)].

6.7 Reducing this carbon footprint in the face of accelerating demand for commodities and construction materials is a major challenge facing the minerals industry and its regulators both now and in the future. To assist in meeting this challenge, proposals for minerals development which require planning permission will be required to demonstrate that the wider issue of climate change, including reduction of CO_2, has been satisfactorily addressed.

Policy CC1 - Preparation of Climate Change Assessments

Proposals for mineral developments and aggregates recycling operations should be supported by an assessment of how climate change mitigation and adaptation measures have been incorporated in the design and operation of the proposed development and considered in its location. This assessment will include demonstrating that the proposals are energy, material, and water efficient. It must also demonstrate how emissions generated from traffic will be minimised.

Local authority carbon management action

6.8 The Carbon Trust estimates that UK local authorities spend £750 million a year on energy, and are one of the largest single sources of emissions, with over 25 million tonnes of CO_2. The Boroughs of Bournemouth and Poole and Dorset County Council are seeking to reduce these figures and at the same time show leadership in the area of carbon management. Some of the actions and approaches that have been taken are as follows.

4 DECC News Release, February 2009

6.9 Bournemouth Council has established the *Low Carbon Bournemouth Community Action Plan* which identifies actions that could be taken to tackle climate change through sustainable energy management. It adopts national targets of at least an 80% cut in greenhouse gas emissions by 2050 and at least 34% reduction in emissions by 2020. The Borough of Poole's Corporate Strategy includes a commitment to decrease the carbon footprint of Poole through reduced CO_2 emissions, both from large organisations and in the wider community.

6.10 In addition, the *Bournemouth, Dorset and Poole Renewable Energy Strategy* focuses on the use of renewable energy to meet electricity and heat needs in Dorset. The *Bournemouth, Dorset and Poole Energy Efficiency Strategy and Action Plan* identifies actions to improve energy efficiency and curb energy demand across Dorset.

6.11 Dorset County Council is committed to reducing it's greenhouse gas emissions. The *Carbon Management Action Plan*, developed in 2007, set the County Council an 11% reduction target in carbon dioxide emissions by 2010. Performance against this plan is monitored annually. During 2009 further review of the carbon management programme was undertaken and has been outlined in the *Dorset County Council Carbon Management Beyond 2010* report. In addition Dorset County Council is subject to the *Carbon Reduction Commitment*, which places new legal duties on the County Council to effectively manage its carbon emissions.

7 Aggregates

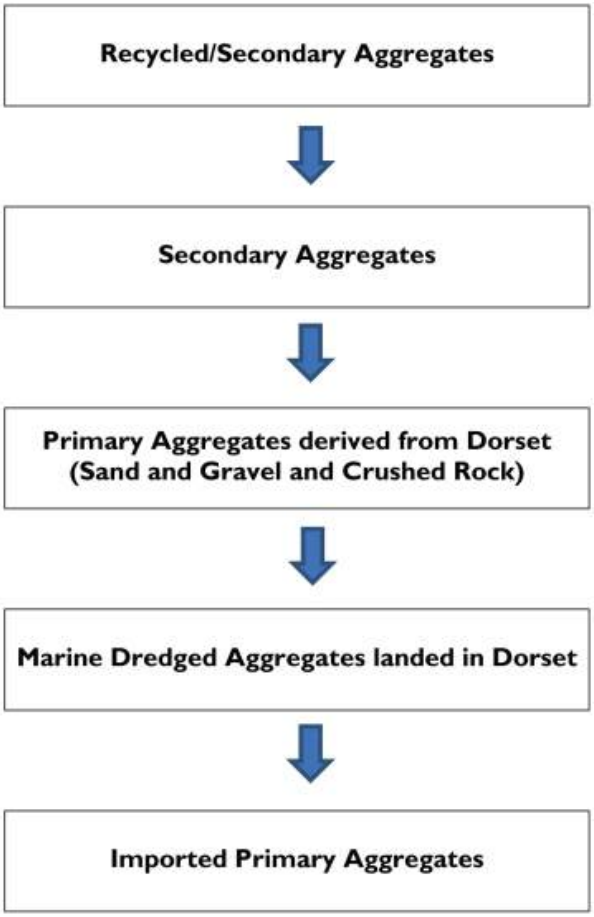
7 Aggregates

Introduction

7.1 Aggregates are essential to support sustainable economic growth. They are used for the construction and maintenance of hard infrastructure such as roads, airports, schools, houses, hospitals and flood and sea defences. They may be natural, secondary or recycled. The strategy for a sustainable aggregates supply in Dorset seeks to ensure that there is sufficient supply of material to support the development that is needed. This is consistent with the National Planning Policy Framework (NPPF). Aggregates can be produced from a number of sources and this chapter considers all forms of aggregate and the contribution that they can make to meeting Dorset's identified need.

7.2 This chapter follows the preferred hierarchy as follows;

Figure 6 Preferred Hierarchy for Aggregates Provision



Recycled and Secondary Aggregates

Key Issue - Aggregates Recycling

Facilitating the increased production of recycled aggregates in the most suitable locations, particularly in the west and north of the county

Introduction

7.3 Recycled aggregates are construction, demolition and excavation (CDE) wastes which can be re-used as aggregates, usually after some form of processing such as screening, washing or blending with primary aggregate. CDE waste includes crushed brick, concrete, soils and sub-soils and road planings. These materials may be used as they are, to provide bulk fill for construction projects or combined with primary (i.e. land-won or marine) material to manufacture concrete or material suitable for road surfacing and for re-use in materials for sea defences. These combined materials are known as hybrid aggregates.

7.4 Secondary aggregates are materials that are produced as industrial by-products, such as spent foundry sand, crushed glass, fragmented plastic or rubber, that can be used as aggregates. They can also be produced from other mineral operations, such as the sand removed to gain access to ball clay at sites such as Doreys. This is referred to in Chapter 8 on ball clay and in Policy BC3.

7.5 Article 4 of the revised EU Waste Framework Directive[(5)] sets out five steps for dealing with waste, the 'waste hierarchy'. Recycling is the third of the usual five stages of the hierarchy - prevention, preparing for re-use, recycling, other recovery and disposal. Recycling of aggregates has an important role to play in delivering the Waste Directive, reducing the extraction and use of primary aggregate, helping to make efficient and sustainable use of mineral resources and reducing the environmental impacts associated with their production. Government discourages the simple landfill of material suitable for recycling as aggregate by means such as the Landfill Tax.

7.6 The Minerals Strategy encourages the increased production of recycled aggregates. It also seeks to ensure that a wide range of processed recycled material is produced, to increase opportunities to reduce the amount of material extracted from the land or the sea-bed.

7.7 Although there are many benefits of using secondary and recycled aggregates as a resource, recycling of aggregates does have negative impacts. It reduces the amount of material for use in quarry restoration. This may require the review of existing quarry restoration schemes at sites relying on this material. In some situations this could lead to variations or delay in the restoration of quarries, particularly where restoration needs to be to dry land to avoid the risk of bird strike near airports. Recycled aggregate production can also cause noise, dust, visual and transport impacts, as with any quarry operation.

5 Directive 2008/98/EC

7.8 There is also the issue of the amount of energy required in the processing of recycled aggregates, and the transport impacts from taking the material to be recycled to the recycling sites; crushing, washing and blending it; and then transporting it to where it will be used. Against this can be set the fact that use of recycled aggregates conserves primary aggregates, facilitates the use of primary aggregate to its 'highest and best use' and can mean less quarries are developed.

Types of Facilities

7.9 The Minerals Strategy recognises that recycled aggregate production facilities include two distinct scales of operation. At one end of the scale are the smaller plants that primarily crush and screen material and produce lower specification materials more suited for uses such as constructional fill. These sites, which can include transfer stations, may also separate and bulk up material to be transported to larger sites. At the other end are the larger recycling sites which both produce higher volumes of output and may carry out more processing of the material being recycled. This can include washing and blending recycled material with primary aggregate to produce a high quality product suitable for a wider range of uses.

7.10 These larger and more specialised plants are of strategic importance in delivery of the strategy for recycled aggregates. Their typical permitted capacity or production levels are around or in excess of 50,000 tonnes per annum of high quality material. They generally benefit from long term (normally 25 years) or permanent planning permissions which justify the level of investment needed to produce high quality recycled aggregates. For example such facilities usually require an aggregate washing plant.

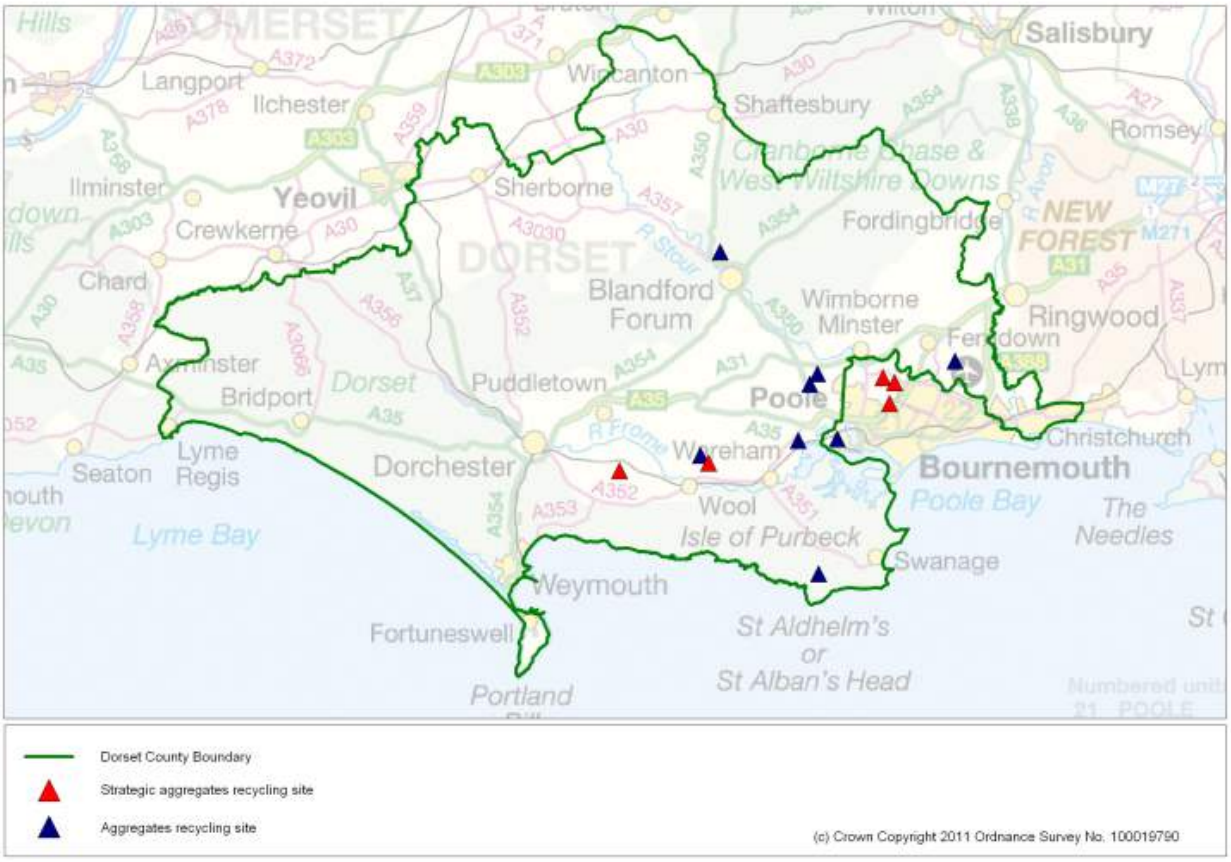
Locational Needs and Spatial Characteristics

7.11 Aggregate recycling sites have specific locational needs. Production and distribution of recycled aggregate is market driven. As with primary aggregate, the value of recycled material is relatively low and does not travel far. Sites should preferably be close to the sources of the material to be recycled and also close to the markets that the facilities serve. A location close to urban areas with good road access is favoured. The facilities may be located on brownfield land or at existing minerals or waste sites. In some cases, a location on an industrial estate is beneficial in terms of good access to material to be processed and good access to markets. A location on an industrial estate usually requires high levels of control of noise and dust, and rents can be prohibitively high.

7.12 A location within an existing quarry can be beneficial, particularly for the larger or strategic recycling sites, given that there is generally an existing washing plant with silt lagoons on-site, good road access and existing screening. Permissions for recycling operations within a quarry will normally be restricted to the life of the quarry in cases where it would not be appropriate to permit a permanent recycling operation. For example, the recycling use might conflict with a long term restoration plan for an after use such as nature conservation or recreation; or, it might compromise the ability of the site to be restored in keeping with local landscape character; or, where the quarry is away from the source of waste and the market and/or with poor access, the recycling use might be justifiable during the life of the quarry but not afterwards.

7.13 Figure 7 reflects these locational needs, with recycling sites located in relatively close proximity to the urban areas, especially the south-east Dorset conurbation and also close to Dorchester. This also reflects the location of the majority of current and worked out aggregate quarries. In contrast, the more sparsely populated areas of west and north Dorset have very limited coverage of recycling facilities. Those areas of Dorset within the viable catchment area of recycling facilities across the border would be served by those facilities, or by facilities within Dorset provided it was economically feasible to transport material to and from them. It is expected that some of Dorset's CDE waste arisings would flow out of the county to aggregates recycling sites in adjoining counties, and recycled material would return for use in Dorset.

Figure 7 Aggregate Recycling Facilities in the Plan Area



Current Production

7.14 No sub-regional or local apportionment for the production of alternative materials or recycled aggregates in Bournemouth, Dorset and Poole has ever been set. A report published in 2005[6] suggested that of the 4.47 million tonnes of recycled aggregates produced in the region in 2003, approximately 11.2% (501,000 tonnes) were produced in Dorset (including Bournemouth and Poole). However, the Mineral Planning Authority has undertaken a survey of known aggregates recycling sites in the Plan area[7] which provides more relevant and accurate information on output, capacity and the nature of facilities within the county. This information indicates that total average output over the past five years has been in the region of 190,000 tonnes per year. By comparison, the total permitted capacity for aggregate recycling production is over 580,000 tonnes.

7.15 Results show that there are thirteen known aggregate recycling sites of varying scales, which produce between them a variety of washed aggregate, fill material and soils. Five of the sites can be regarded as strategic facilities, with either a capacity or average output of 50,000 tonnes or more. Their distribution is shown on Figure 7.

The Strategy for Provision of Recycled Aggregates

7.16 An increased supply of recycled aggregates reduces reliance on primary won aggregate. This is taken into account in the assessment of the level of aggregates for which to make provision, as set out later in this chapter. Production of recycled aggregate is market driven. The Minerals Strategy seeks to ensure a steady, annual increase in the production of recycled aggregate, particularly the production of products of a high specification.

7.17 This will be achieved through:

- the maintenance of current production and, where possible and appropriate, an increase in output from existing facilities or development of new or improved facilities - through renewing temporary permissions and issuing long-term or permanent permissions, provided these are justified and adverse impacts can be satisfactorily mitigated;
- safeguarding existing recycling facilities for the life of their permission; and
- encouraging replacement capacity where production capacity is lost through termination of a permission.

7.18 Based on the information collected, there is scope for increased production at existing sites. New sites are also encouraged, and can be expected to arise where supply and demand exist.

7.19 Development proposals should comply with Policy RE1 and other relevant policies in this plan, including the Development Management policies. Proposals will need to demonstrate that the key issues such as access, landscape, amenity and environmental

6 Technical and Strategic Assessment of Aggregate Supply Options in the South-West Region - Capita Symonds, 2005

7 See Background Paper 3: Recycled Aggregates

impacts have been addressed and any adverse impacts satisfactorily mitigated. To ensure that European wildlife sites are safeguarded from any effects of development, proposals should comply with Policy DM5 (Chapter 16).

Policy RE1 – Production of Recycled Aggregates

Production of recycled aggregates, including high grade washed recycled aggregate, will be facilitated through permitting long term or permanent facilities at locations which:

a. are near to the source of material to be recycled and in locations favourable to the production of recycled aggregates (for example industrial locations, existing active quarries or waste sites, urban fringe and brownfield sites); or
b. replace temporary aggregate recycling permissions where the need for permanent retention can be demonstrated and where it can be shown that the temporary facility has operated without causing adverse environmental impacts and where long-term or permanent operation would not impede or conflict with restoration of any other use of the site.

Where it is considered that permanent or long term facilities for aggregates recycling may be inappropriate, temporary facilities will be permitted or renewed at suitable locations, including existing quarries and appropriate waste management sites, provided that any negative impacts can be avoided or mitigated to an acceptable level.

In cases where a recycling facility is permitted for operation within an existing quarry, the life of the permission will normally be restricted to the life of the quarry operation.

The Extraction of Primary Aggregates

Key Issue - Aggregates

Planning for an appropriate, robust and flexible level of aggregates provision having regard to demand.

Determining the most appropriate and sustainable locations for the extraction of aggregates in Dorset

7.20 Natural (or primary) aggregate is obtained from mineral sources subject only to processing through crushing and sizing. Two naturally occurring types of aggregate are produced in Dorset: land-won sand and gravel, and crushed limestone rock. As the character and geographic location of these are different they will be dealt with separately in this chapter.

Sand and Gravel

Spatial characteristics

7.21 Sand and gravel in Dorset is produced primarily from Poole Formation sand (geologically considered a bedrock deposit) and river terrace or plateau sand and gravel (geologically considered a superficial deposit).

7.22 Poole Formation sand is the most important important source of sand in the plan area, outcropping in the south east of the county. It is sometimes called 'soft' or building sand. It forms hills and ridges in a broad zone stretching from Dorchester to Wareham and around the fringes of Poole and Verwood. These sandy, less fertile areas, give rise to the ecologically important heathlands.

7.23 Between these areas of higher land run the river valleys of the Frome, Piddle, Stour and Avon. Extensive spreads of river terrace sand and gravel are deposited along the flanks of these valleys. It is sometimes known as 'sharp' sand and gravel. In the north west, the valley of the River Axe contains exceptionally deep gravel deposits, around 20m thick. The river valleys are often highly attractive unspoilt areas where to date there has been only limited extraction of sand and gravel. Within some river terrace deposits, large flint pebbles and cobbles are found, particularly east of Dorchester. These potentially form a source of building and decorative stone, but also may be crushed or used in restoration.

7.24 Plateau gravels are found capping many of the hills and ridges. Only isolated pockets now remain available, the majority already being worked out, built upon or of ecological importance. These deposits are of only limited economic importance.

7.25 Figure 8 shows the general spatial distribution of these three types of sand and gravel. They occur predominantly in the south east of the plan area and coincide with the location of most of the urban development in Bournemouth, Dorset and Poole.

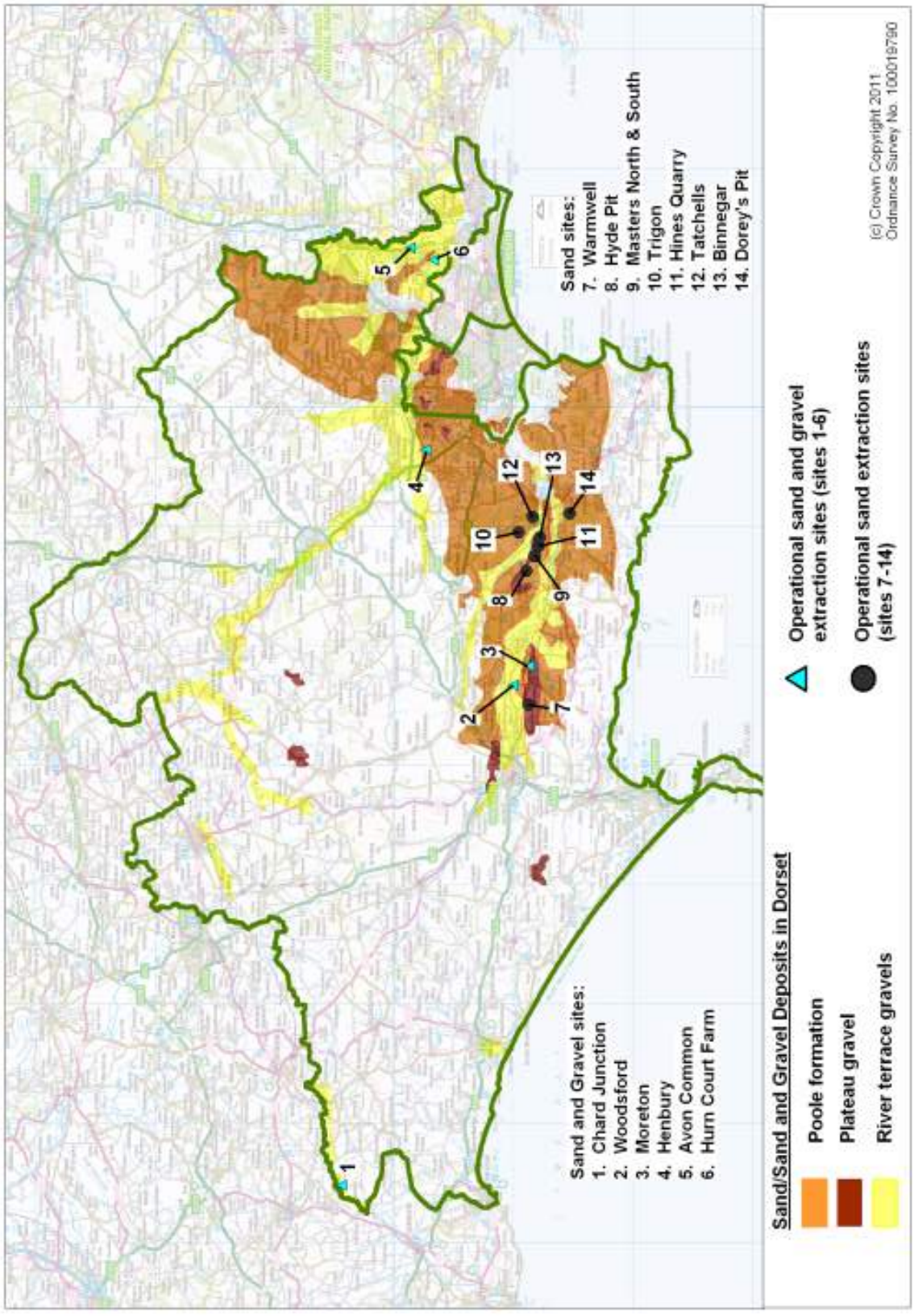


Figure 8 Sand and Gravel Quarries with Reserves at the end of 2010

Sand and gravel - the current picture

7.26 Dorset is the largest producer of sand and gravel in south west England. Sales in 2011 totalled 1.49 million tonnes (mt), of which approximately two thirds (1.07 mt) was sand from quarries largely working in the Poole Formation. The remaining third (0.42 mt) came from sand and gravel pits working river terrace deposits. At the end of 2010, there were 14 quarries in Dorset with permitted reserves totalling just under 17 million tonnes. Just over half of these reserves were from quarries predominantly producing sand. The number of active quarries varies over time as some exhaust their reserves and close or new sites open. Figure 8 shows the sand and gravel quarries with permitted reserves at the end of 2010.

7.27 The Poole Formation consists of an alternating sequence of fine to very coarse grained sand. The large variations in particle size and colours enable a wide range of products to be provided. It is not restricted to uses such as plastering or asphalt production commonly associated with 'soft' sand. In areas of the Poole Formation where ball clay is found, sand often forms a deep overburden or lies between the clay seams. This sand is now regarded as a secondary aggregate for statistical purposes. Sand extracted below the clay will continue to be treated as a primary aggregate.

7.28 Understandably, the industry is often unable to break down their permitted reserves of sand into soft or sharp sand. Following discussions with companies and their agents, sales and reserves figures have been divided by source (either Poole Formation or river terrace) where commercial confidentiality restrictions allow. This enables a useful assessment of supply and will avoid the risk of specific shortages of particular types of material being hidden within an overall total figure.

Key issues facing the extraction of sand and gravel

7.29 The production of the Minerals Strategy has considered the most appropriate level of provision of sand and gravel. Until recently, the Government published figures apportioning future aggregates provision between the English regions. These guideline figures were then broken into sub-regional apportionments by the regional planning bodies, advised by the Aggregates Working Parties. The latest regional apportionment figures were published in June 2009 and cover the sixteen year period 2005-2020. They required the former South West region to make provision for 85 million tonnes of sand and gravel over the sixteen year period. This was a reduction from the previous 2003 figure of 106mt.

7.30 In addition to figures for primary aggregates, the guidelines assumed that marine dredged gravel landed in the region will total 12mt over the period, compared with 9mt previously. Alternative aggregates (secondary and recycled materials) were assumed to increase from 121mt to 142mt. These regional guidelines were apportioned between each sub-regional area. This process of 'managed aggregates supply' was considered to provide an effective means of securing an adequate provision of construction materials without releasing excessive numbers of sites. The 2009 guidelines resulted in a reduced sub-regional apportionment for Dorset, compared with the previous 2003 figures. Based on the historic proportional contributions to supplies averaged over the period 2004-2008, the annual apportionment figures for sand and gravel fell from 2.27 million tonnes per annum (mtpa) to around 1.97mtpa.

7.31 The NPPF advises that Mineral Planning Authorities should plan for a steady and adequate supply of aggregates by preparing a Local Aggregates Assessment (LAA), based on a rolling average of 10 years sales data along with other relevant local information and an assessment of all supply options. This is a different basis for the calculation of appropriate future mineral supply than the previous apportionment process.

7.32 Total aggregate sales during the period 2002 to 2011 (the last 10 years) amount to approximately 15.78 mt, giving an annual average of 1.58 mt. For the purposes of the Minerals Strategy it is assumed that steady and adequate provision will continue to be made up to and including 2028, applying the annual production figure of 1.58 mt. It is recognised that this figure is not fixed and will vary annually with changing production figures, reflecting increases and decreases in levels of production. The 'rolling basis' of the methodology set out in the NPPF means that the appropriate annual supply for aggregates will be regularly revised by the Mineral Planning Authority through the LAA.

7.33 To maintain the necessary level of provision, the NPPF advises Mineral Planning Authorities to ensure that there is a stock of mineral planning permissions which will satisfy the annual supply requirement for a period of at least 7 years. This is known as the landbank - the total remaining quantity of mineral reserve with planning permission for extraction. At the end of 2011 there were just over 17.5 million tonnes of permitted sand and gravel reserves in Dorset. At the current level of average production (1.58 mtpa) this landbank would last just over 11 years if no further permissions were granted:

Permitted Reserves / Level of Provision = Remaining landbank

17.5 mt / 1.58 mtpa = 11.1 years

7.34 In order to assess the adequacy of the landbank on an ongoing basis, the co-operation of the industry will be needed to provide sufficient information to the Mineral Planning Authority each year on production and remaining reserves at each quarry. Since sand and gravel production and permitted reserve levels will be monitored and reviewed annually through the Annual Monitoring Report, the Minerals Strategy and Mineral Sites Plan, it is not considered necessary to plan for the maintenance of a landbank beyond the end of the plan period.

7.35 The requirement to produce a LAA annually will ensure that aggregate production levels are monitored and reported on regularly. This will indicate if and when the level of sales exceeds the level of provision. If sales are shown to exceed provision consistently, a review of the provision of aggregates will be triggered, although this is considered unlikely to occur during the plan period.

7.36 The Mineral Sites Plan, when adopted, will identify the sites required to deliver the aggregates provision strategy. If sites allocated through the Mineral Sites Plan become exhausted the Minerals Strategy will provide a sound basis for assessing new applications within the identified resource areas through application of the development management policies. In addition, should any exception ('windfall') sites come forward under Policy SS2 during the lifetime of the Plan, these will contribute to the delivery of the aggregates provision strategy.

Addressing the key issues and delivering the strategy - sand and gravel

7.37 The amount of sand and gravel that will need to be provided for through the Minerals Strategy and the Mineral Sites Plan can be calculated as;

Annual production figure X Years covered by the plan (17 years, 2011 to 2028) - Existing Permitted Reserves (at the end of 2011) = Requirement for new sites

(1.58 mtpa x 17 years) – 17.5 mt = 9.36 mt

7.38 There will be a need to identify new sand and gravel sites containing around at least 9.36 mt in the Mineral Sites Plan. It may be necessary following further assessment, to identify more than 9.36 mt of future allocations in the Mineral Sites Plan. Deliverability of annual aggregate supply is a key issue. It is not enough to simply identify a lump sum figure which is adequate to meet future needs over the long term - the Mineral Sites Plan must demonstrate with reasonable certainty that the appropriate annual level of production can be achieved year upon year. This may require identification of more than the minimum level of future production. Every effort will be made to ensure an appropriate split in provision, based on past trends, between sand from the Poole Formation and sand and gravel from river terrace or plateau deposits in order to avoid shortages of particular types of aggregate.

Strategic preferences for the extraction of sand and gravel

7.39 The County Council commissioned the British Geological Survey (BGS) to undertake an assessment [8] of the status of the sand and gravel resources in Dorset, Bournemouth and Poole. The assessment provides estimates of the total sand and gravel resources in the river terrace deposits and in the Palaeogene bedrock formations (largely Poole Formation). The figures for total resources were adjusted by excluding:

- Built up areas
- Areas with planning permission for sand and gravel extraction
- Areas within an Area of Outstanding Beauty (AONBs)
- Areas designated as Special Protection Area (SPA), Special Area of Conservation (SAC), Site of Special Scientific Interest (SSSI), National Nature Reserve or Heritage Coast

7.40 The BGS study findings confirmed that extensive sand and gravel resources exist in southern and eastern Dorset. Excluding the above constraints the sand and gravel resources in river terrace deposits amount to around 684 million tonnes. Sand within the Palaeogene bedrock (outside the excluded areas) totals around 1,803 million tonnes. These unconstrained areas have been mapped by the BGS and comprise an intricate pattern of areas of land, some large and some small, underlain by sand and gravel.

7.41 To represent the unconstrained sand and gravel spatially, two resource blocks were created, one for superficial river terrace sand and gravel and one for bedrock sand (primarily Poole Formation and Branksome Sand). These are shown in Figures 9 and 10. The resource blocks show the general area of land within which there is a high level of confidence that there is sufficient mineral to meet the relevant annual level of provision until 2028. Future sand and gravel quarries will be located within these resource blocks. The boundaries of the resource blocks are based on the BGS report mapping but have been drawn more widely to represent the general location of the sand and gravel resource and to acknowledge that the mineral in the ground may extend beyond the specific boundaries defined in the BGS report.

7.42 However, since the boundaries of the resource blocks are drawn generally they include some areas of constraint (such as SPAs and SACs) which had previously been removed for the purposes of the BGS study. As far as possible urban areas and the AONB have been excluded. The resource blocks do not correspond exactly to the areas of sand and gravel identified by the BGS, but given the quantities of aggregate identified in the BGS study there is confidence that the level of provision can be met from within the resource blocks.

8 Background Paper 1: Dorset, Bournemouth and Poole Sand and Gravel Assessment; External Report CR/11/049 - British Geological Survey, 2011

7.43 Inclusion of constrained land within the resource areas does **not** mean that future quarries will be located on the constrained land. There are many other constraints to development not considered within this study, such as proximity to houses, conflicting land uses, amenity and accessibility. It is not possible to include these in this high level study. These will be taken into consideration when specific sites are assessed for inclusion within the Mineral Sites Plan. The site assessment process will seek to identify the least sensitive locations for sand and gravel development (see Appendix 1). It will also need to take into account proximity to markets and suitability of transport links. Any identified impacts will need to be adequately mitigated in accordance with other policies and assessments. Future quarry proposals will be identified from land within these resource blocks subject to the normal and rigorous site assessment process which will either exclude constraints or ensure that any impacts are appropriately mitigated.

7.44 No sites will be brought forward for sand and gravel which fall within and/or are likely to affect European or internationally designated nature conservation sites. Nationally designated SSSIs are also afforded statutory protection. Detailed assessment of the ecological and hydrological implications of sand and gravel working in the resource blocks close to European or international sites will be necessary to support sites to be taken forward into the Mineral Sites Plan. Where significant doubts remain over possible effects on European sites, a precautionary approach to avoid inclusion of such sites will be taken.

7.45 The Mineral Planning Authority has carried out work to establish whether the level of provision set out is likely to be achievable, given the highly constrained environment of Dorset. A call for sites exercise was carried out asking industry to put forward potential future sites for consideration by the Mineral Planning Authority. This exercise provided evidence that sufficient reserves can be found from within the resource area to meet the need throughout the plan period. It was also evident through this exercise that future sites are likely to come from both the Poole Formation and the river terrace deposits.

7.46 It will be the task of the Mineral Sites Plan to identify sufficient sites for the extraction of sand and gravel, from within the resource blocks, to meet future needs. When specific sites are brought forward they will be judged on their individual merits following the site selection criteria (see Appendix 1) and will need to comply with all the relevant policies in the plan. Sites identified in the Mineral Sites Plan will be preferred for mineral extraction over other non-identified sites. Planning applications for development within identified sites are likely to be considered as acceptable.

7.47 Close liaison with delivery partners has been and will continue to be essential to the delivery of this strategy. Current technical meetings with adjoining counties and some mineral operators take place through the Aggregates Working Party (AWP).

7.48 In addition to sites to be identified in the Mineral Sites Plan, opportunities for unallocated (windfall) sites may arise. Windfall sites generally become available unexpectedly during the life of the plan and are likely to arise within the minerals resource areas. They tend to be small sites but do provide reserves of aggregate to contribute to the overall need. Windfall sites can include sites where mineral extraction is required before other development in a given location can go ahead, such as the creation of agricultural reservoirs, or where the prior extraction of minerals is required before other development takes place that may otherwise sterilise the resource (also see section on borrow pits, paragraphs 7.89 - 7.91). These types of application will be considered on their merits, having regard to all the policies in the Minerals Strategy.

Policy AS1 - Provision of Sand and Gravel

An adequate and steady supply of locally extracted sand and gravel will be provided by maintaining a landbank of permitted sand and gravel reserves equivalent to at least 7 years' worth of supply over the period to 2028, based on the current agreed local annual supply requirement for Bournemouth, Dorset and Poole This will be achieved from:

i. remaining reserves at existing permitted sites;
ii. new sand and gravel sites, including extensions to existing permitted sites, as identified in the Mineral Sites Plan;
iii. new sites not identified in the Mineral Sites Plan, provided:

   a. monitoring indicates that the sites identified in ii. above are unlikely to meet Bournemouth, Dorset and Poole's landbank requirements; or
   b. the proposed development is for the prior extraction of aggregate in advance of non-minerals development; or
   c. the development is part of a proposal for another beneficial use; or
   d. the development is for a specific local requirement.

Future sites required to contribute to meeting this supply will be located within the resource blocks identified on the Policies Map.

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 the 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.

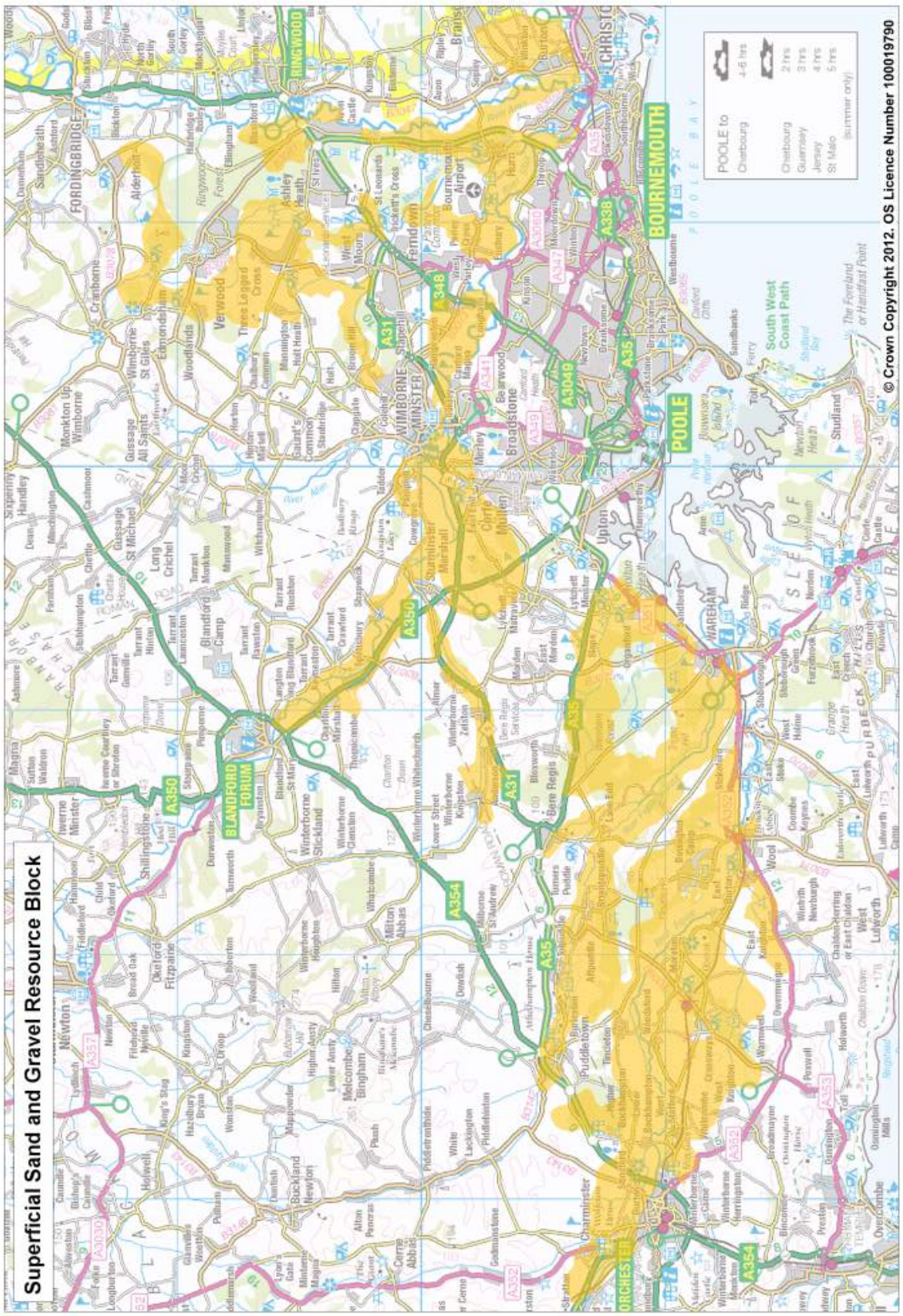


Figure 9 Superficial Sand & Gravel Resource Block

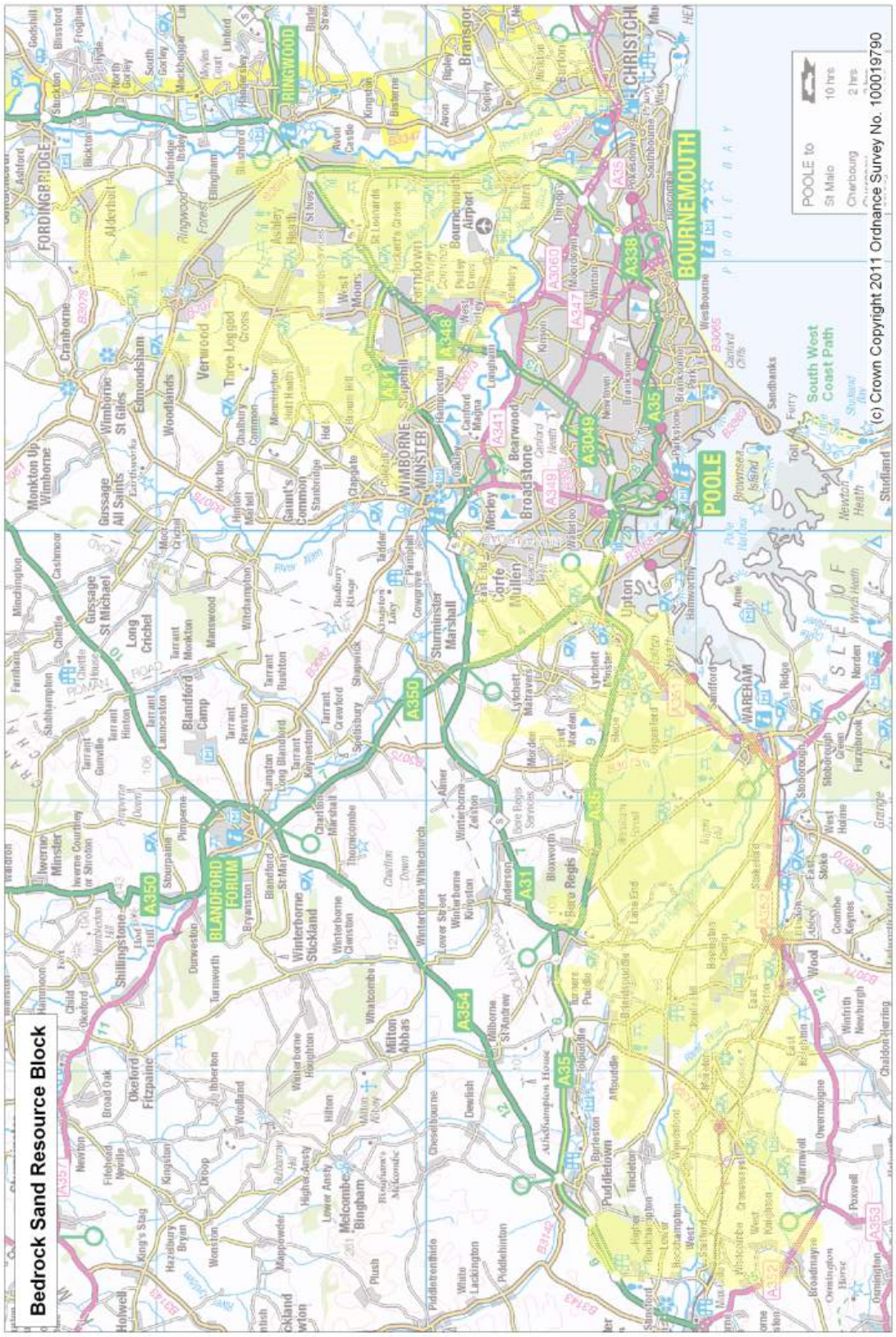


Figure 10 Bedrock Sand Resource Block

Extraction of sand and gravel in the AONB

7.49 Sand and gravel is widely found within the Dorset AONB and is currently extracted at Chard Junction, a quarry on the Dorset/Devon Border serving the western markets. Major extraction of sand and gravel in AONBs is generally discouraged because of its potential to cause serious harm to the landscape. The NPPF acknowledges this, stating that planning permission should be refused for major developments in designated areas except in exceptional circumstances, where it is in the public interest. The Minerals Strategy should as far as practicable, ensure that sufficient levels of permitted reserves are available from outside the AONB.

7.50 Where there is no harm to the AONB or where the harm is minimal and can be satisfactorily mitigated against, then extraction of sand and gravel may be appropriate in exceptional circumstances. This could be where sand is found in conjunction with ball clay. This specific issue is addressed in Chapter 8.

Monitoring and maintaining separate landbanks

7.51 Poole Formation sand and river terrace/plateau sand and gravels are geologically different and it is considered appropriate to monitor their supply separately. This will ensure that, should there be a decline in either type of aggregate, this will not be masked by overall production and the level of the combined landbank. The Mineral Planning Authority would then be able to take appropriate action to address a decline. Further analysis based on production from quarries within the different geological deposits makes it possible to identify separate landbanks.

7.52 At the end of 2011, the average of the previous ten years of production was 1.58 mtpa. This comprised 1.01 mtpa or 64% of Poole Formation and 0.57 mtpa or 36% of River Terrace sand/gravel. The figures of 36% for River Terrace and 64% for Poole Formation represent relative levels of production of the different types of aggregate. They are not intended to comprise a cap on future production levels. As the ten year rolling average varies year by year relative production levels may also vary.

7.53 Applying these relative proportions to the estimated reserves[9] (at the end of 2011) of River Terrace (approximately 7.6 mt) and Poole Formation (approximately 9.9 mt) aggregate gives indicative landbanks of 13.3 years for River Terrace/plateau sand and gravel and almost 10 years for Poole Formation sand.

- River Terrace: 7.6mt/0.57mtpa = 13.3 years
- Poole Formation: 9.9mt/1.01mtpa = 9.8 years

7.54 This exercise will be repeated annually to identify possible shortfalls in provision. Policy AS2 commits to the maintenance of at least a 7 year landbank for each type of sand/sand and gravel.

9 Mineral with a current permission for extraction, but not yet extracted

Policy AS2 - Landbank Provision

The Mineral Planning Authorities will maintain a separate landbank for both Poole Formation and River Terrace aggregate equivalent to at least 7 years' supply in each case.

Crushed Rock

Spatial characteristics

7.55 Limestone suitable for crushing for use as aggregate is found in both Purbeck and Portland. These two distinct areas have very different spatial characteristics and are particularly sensitive in terms of landscape and biodiversity interest. Further details on the spatial characteristics of Purbeck and Portland can be read in chapters 9 and 10.

7.56 The coastline of Portland is designated as part of the Jurassic Coast World Heritage Site and there are many areas of geological and ecological importance on the island, partly as a result of past quarrying activities. Currently crushed rock is produced at five quarries on Portland. Crushed aggregate and armour stone is produced alongside dimension stone from most of the quarries. Each of the operational quarries has reserves of dimension stone offcuts and wastage for use as aggregate. On Portland, stone from the cherty series, which forms the deepest quarried bed, is only suitable for crushing. Extraction of this stone results in a deeper void space in the quarry once extracted.

7.57 Similarly, Purbeck is an area of considerable environmental quality. The only aggregates quarry in the Isle of Purbeck is Swanworth Quarry, near Worth Matravers, which produces crushed rock from the Portland Beds. The Jurassic Limestone is generally regarded as a weaker or softer rock than Carboniferous Limestone and is normally unsuitable as a concreting aggregate. Swanworth Quarry is situated within the AONB and the Heritage Coast.

7.58 95% of crushed rock extracted in Dorset stays in the plan area. However, to meet local needs it is thought that around a third of a million tonnes of crushed rock and fine aggregate from the Mendips is brought to Dorset each year.

Crushed rock - the current picture

7.59 Annual output of crushed rock from Dorset varies according to demand. Total sales in 2011 were approximately 150,000 tonnes and remaining reserves at the end of the year were conservatively estimated to be approximately 13 million tonnes. Average annual production of crushed rock since 1999 is approximately 290,000 tonnes, while the average of the last 10 years of production is approximately 265,000 tonnes. Current reserves are made up entirely of stone from Portland and Purbeck.

The crushed rock landbank.

7.60 The key issue to resolve is the amount of crushed rock production needed over the plan period. The NPPF (paragraph 145) requires the Mineral Planning Authority to make provision for a minimum of 10 years worth of supply for crushed rock. This is to ensure on-going supply for the construction industry. Average annual production of crushed rock over the ten year period 2002 to 2011 was approximately 0.27 million tonnes per annum. Using this figure as the basis for the 10-year rolling average methodology and with permitted reserves at the end of 2011 conservatively estimated to be approximately 13 million tonnes, this is sufficient for around 48 years of production This comprises the crushed rock landbank as it stands at the end of 2011. The period of 48 years is well beyond the life of the Mineral Strategy and it is therefore considered that there is no need to identify any further sources of crushed rock at the present time.

Permitted Reserves / Level of Provision = Remaining landbank

13 mt / 0.27 mtpa = 48 years

7.61 In Chapter 10, the strategy for future extraction of Portland Stone encourages the relinquishment of those parts of the planning permissions within sensitive areas, such as those close to housing. If this happens, the remaining permitted reserves of crushed rock would be reduced. However, it is expected that any reduction would form only a small proportion of the total, and the landbank would remain sufficient for well over the Plan period.

7.62 There may be exceptional circumstances where it is appropriate to grant permission for the production and processing of crushed rock at a new site. This could be where there has been a marked changed in mineral demand or unexpected reduction in supply. Specific examples of exceptional circumstances are set out in Policy AS3 below

7.63 To ensure that European wildlife sites are safeguarded from any effects of development, any proposal resulting from a change of circumstances and an identified need for additional stone should comply with Policy DM5 of Chapter 16.

Policy AS3 - Crushed Rock

New sites for the processing and production of crushed rock will only be permitted within the Plan period in exceptional circumstances including but not limited to:

a. where development would enable a sustainable supply of minerals close to the market;
b. where an existing more sensitive site will be relinquished.

Marine dredged aggregates

7.64 Marine dredged sand and gravel is extracted from the sea bed from licensed areas off the coast of Hampshire, the Isle of Wight and West Sussex. The ability of marine aggregates supplies to make a contribution to local construction aggregate demand relies upon the material being able to access the market via a wharf. Marine dredged aggregates are landed at a wharf in the Port of Poole. Without this wharf, marine aggregates would not contribute to Bournemouth, Dorset or Poole's need for aggregate as the closest alternative point of landing is at Marchwood, in Southampton.

7.65 Marine aggregates make a relatively small but important contribution to the overall need for minerals in Dorset. Until the economic downturn impacted, landings were around 100,000 tonnes per annum. Landings are currently down to 60,000 to 70,000 tonnes per annum.

7.66 The principal constraints on the level of marine landings during the plan period are the production capacity to dredge and deliver the material to the wharves, security of port access (loss of wharves), channel and berth restrictions and the road transport system away from the wharf. There are also considerable pressures on wharf facilities throughout the country from other uses and the cost of land is likely to be a threat to future supply and expansion.

7.67 Without expansion, there is currently limited additional capacity at Poole Wharf. Landings are considerably constrained by the capacity of the wharf, as 4,000 tonnes is the maximum load that can be landed at any one time and total storage capacity of processed material is around 10,000 tonnes. Despite these capacity issues, substantial marine aggregate reserves remain along the South Coast and eastern English Channel for the long term.

7.68 With limited spare capacity at Poole wharf, there is little flexibility to deliver additional resources of marine dredged aggregates into Dorset unless the wharf were to be used as a trans-shipment wharf. This is where large articulated lorries take material directly from the ships for onward processing. This could be an option if increased supplies of aggregates are needed in the future and other sources constrained.

7.69 Unlike on land, the constraints to dredging are less about the availability of suitable unconstrained resources. This is demonstrated by the tonnages currently permitted. Dredging is subject to a system of licensing. The licensed areas, from which minerals are dredged and imported into Dorset, have a total permitted tonnage of 9.75 million tonnes per annum, of which in 2010 only 3.66 million tonnes were removed.

7.70 It is considered that capacity remains to continue a steady supply of landings of up to 100,000 tpa within the plan period in order to contribute to the overall need for aggregates in Dorset. The Mineral Planning Authority will safeguard the facility at Poole Port to enable and encourage landings and processing to continue. Policy SG3 deals with the issue of safeguarding wharves.

7.71 Marine dredged sand is also used for beach replenishments. Between 2005 and 2010 3.32 million tonnes of marine sand was pumped directly onto the beaches at Bournemouth, Sandbanks, Poole and Swanage. It is understood that further beach recharge is being considered for Bournemouth and West Bay in the coming years. This method of beach recharge requires no land transportation.

Impact of Marine Planning on aggregates resources

7.72 Adopted by the UK Government, the UK Marine Policy Statement is part of a new system of marine planning being introduced across UK seas. The Marine Policy Statement will enable an appropriate and consistent approach to marine planning across UK waters. It will ensure the sustainable use of marine resources and strategic management of marine activities from renewable energy to nature conservation, fishing, recreation and tourism. The policy statement contains a requirement for the marine planning authority to consider safeguarding marine mineral deposits.

7.73 Marine planning will contribute to the effective management of marine activities and more sustainable use of marine resources, creating the framework for consistent and evidence based decision making. This will be achieved through the Marine Policy Statement, Marine Plans and marine licenses.

7.74 Marine Plans must be consistent with the Marine Policy Statement, ensuring a strong link between national policy and individual developments. Plans will present and interpret national policies and apply area-specific policy, spatially where appropriate, to the management of marine resources and activities. The C-SCOPE Marine Plan for Dorset was published in 2012 and is intended to provide non-statutory guidance. It provides policies, and advice for users, managers and regulators of the marine plan area to ensure that their plans and activities contribute to sustainable development in the area.

7.75 The Marine and Coastal Access Act 2009 created a new type of Marine Protected Area, called a Marine Conservation Zone (MCZ) as shown in Figure 11. MCZs will protect nationally important marine wildlife, habitats, geology and geomorphology. The Marine Conservation Zone Project concerns the selection of MCZs in English inshore and offshore waters. Sites will be selected to protect not just the rare and threatened, but the range of marine wildlife. MCZs, together with other types of Marine Protected Area, will deliver the Government's aim for an 'ecologically coherent network of Marine Protected Areas'. This means the Marine Protected Area network will be a collection of areas that work together to provide more benefits than an individual area could on its own.

7.76 Discussions have taken place with the British Marine Aggregates Producers Association to consider the implications of the new marine planning system on the supply of marine aggregates to Dorset. The industry's view was to welcome the development of the Marine Protected Area network, on the basis that knowledge of sensitive and important habitats and species should reduce some of the risks and uncertainties associated with marine development. The planning process should recognise that marine aggregates extraction can only occur where commercial viable geological deposits exist. These deposits should not be sterilised by other activities that will prevent further extraction.

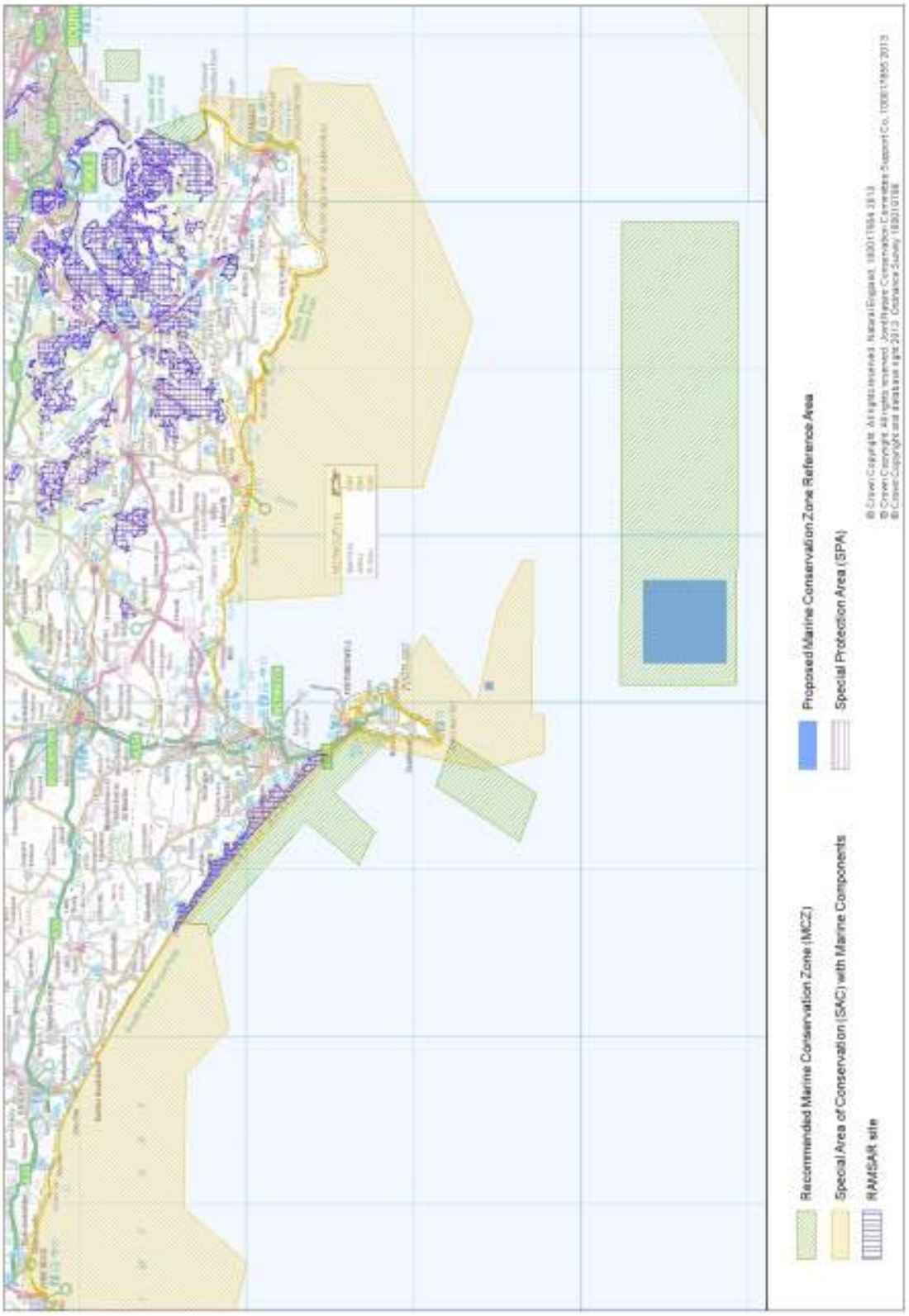


Figure 11 Marine Protected Areas

Further Imports and Exports

7.77 Imports and exports are an important consideration in ensuring a sustainable supply of aggregates nationally. This section explains the quantity of both sand and gravel and crushed rock that is imported to meet the need for aggregates in Dorset and the contribution that Dorset makes to the need for aggregates in other counties through exports.

Cross boundary movements

7.78 Around 7% of the sand and gravel produced in the plan area is sent to Hampshire, based on 2009 figures, while a slightly smaller quantity is brought into Dorset from quarries across the county boundary in Hampshire.

7.79 Relatively small quantities of sand and gravel are also imported from Devon and Wiltshire, with significantly larger amounts of aggregates being returned to these counties. Around 18% of Dorset's production of sand and gravel is sent by road to Somerset (about the same quantity of crushed rock and fine aggregates is sent back, partly as return loads).

7.80 Sand and gravel from Dorset is also supplied to south-east England, including sand sent to London via rail sidings at Wool.

7.81 Cross boundary movements have been indicated on the Key Diagram (see Appendix 4).

Port of Poole

7.82 In addition to marine dredged sand and gravel, Tarmac currently imports around 50,000 tonnes per annum of aggregate through Poole Port from Northern Ireland. This material supplies 40% of the material processes at an asphalt plant in Poole. Products for use in road building, play areas and driveways are produced at the site mainly supplying the Dorset market, with about 15% being exported to Hampshire. Imports by sea are necessary for this plant's operations due to the rising costs of road haulage and the availability of stone locally. There is the potential for the port to handle further quantities of imported aggregates, although the Mineral Planning Authority is unaware of any further examples at the current time.

7.83 Imerys exports a large proportion of its overseas customer's ball clay requirements through the Port of Poole. This makes a significant positive contribution to the operation of the Port.

Portland Port

7.84 Other than Poole, the only area where minerals (marine dredged or imported) might be landed within the plan area is Portland Port. However, the relatively low value of aggregates, the geographic location of Portland and distance to major markets, the storage space required and the need to process dredged material makes development of aggregates wharves at Portland unlikely.

Rail transportation of aggregates

7.85 Use of rail for the transport of aggregates is encouraged in national policies for minerals planning. Until recently, a rail depot at Hamworthy received crushed limestone from Mendip quarries in Somerset for local distribution. Approximately 100,000 tonnes was brought in annually. For economic reasons this activity is currently not operating, but could recommence if conditions change. Policy SG3 provides protection through seeking to safeguard facilities (including rail depots and wharves) from other developments that could prejudice their future use.

7.86 The rail network serving the plan area is not conducive to the establishment of additional rail depots. In the north, where the Salisbury-Exeter line passes in and out of Dorset, the Mendip quarries are relatively close, but road links are more direct. The north-south single line from Yeovil to Dorchester passes through a rural area with limited opportunity and need for such a facility. Work is being undertaken to increase capacity on the main line from London to Weymouth, which serves the Hamworthy depot. Possible establishment of new depots along this line will continue to be investigated and encouraged by the Mineral Planning Authority.

7.87 For dispatching sand to London, sidings at Wool serve as a railhead to load material extracted at Warmwell Quarry near Dorchester. Approximately 100,000 tonnes of sand are sent by rail annually. Figure 12 below shows the existing wharf, rail depot and rail head and the railway lines discussed in the text.

Figure 12 Dorset Wharves and Depots

Policy AS4 - Wharves and Depots

The Mineral Planning Authority will permit new mineral handling rail depots and wharves, and the expansion and/or modernisation of existing sites, where the need for the facility can be demonstrated.

7.88 Where activities require planning permission, proposals should comply with Policy DM5, to ensure that European wildlife sites are safeguarded from any effects of development, as well as other relevant policies in this plan.

Borrow pits

7.89 "Borrow pits" are short term quarries worked in close proximity to (and for the specific purpose of supplying) major road construction and similar civil engineering projects. Sometimes the use of such sites can facilitate the construction project and reduce the impact of heavy goods vehicles on the surrounding road network and the community, compared with bringing aggregates from more distant existing quarries. Minerals won from borrow pits can also contribute to the County's aggregate requirements and may help to avoid the use of better quality reserves from established quarries.

7.90 It is not appropriate to have a site specific policy relating to borrow pits, due to the difficulties predicting their possible location, and need for them. Furthermore, applications for borrow pits are only occasionally received by the Mineral Planning Authority. It is however considered necessary to have a policy for use as and when circumstances require.

7.91 Although there are clear advantages in using borrow pits, it is important to ensure that these short term benefits are not outweighed by damage to other important features such as biodiversity or archaeology. Any proposal for a borrow pit must demonstrate that the location is the most suitable source of material for the project, and that appropriate environmental safeguards covering both working and reclamation are included.

Policy AS5 - Borrow Pits

Proposals for borrow pits associated with construction projects will be permitted provided that all of the following apply:

a. the site lies on or in close proximity to the project so that material can be conveyed to its point of use with minimal use of public highways and without undue interference with footpaths and bridleways;
b. the material extracted will only be used in connection with the project;
c. it can be demonstrated that supply of the mineral from the borrow pit would have less environmental impact than if the mineral were supplied from an existing source;
d. the borrow pit can be restored without the use of imported material, other than that generated on the adjoining construction scheme; and
e. use of the borrow pit is limited to the life of the project.

8 Ball Clay

8 Ball Clay

Key Issue

Maintaining continued supply of ball clay, a mineral of national and international importance, whilst safeguarding and enhancing landscape and ecology importance.

The need to access a range of saleable clays, at one time, in order to produce blends of ball clay led by industry demand.

Introduction

8.1 Ball clay has been regarded for many years as an industrial mineral which is of national and international importance because of its special qualities and rare occurrence. The British Geological Survey (BGS) describes ball clay as 'relatively scarce globally' and hence of importance to the UK's economy. UK ball clay is an essential ingredient of perhaps, half of the world's production of sanitaryware.

8.2 Within the UK, ball clay only occurs commercially in the Wareham Basin of Purbeck and within two areas of Devon. Dorset clays are noted for their high plasticity and unfired strength and also low carbon content. They are particularly suited for tile manufacture and also in electro-porcelains, refractories kiln furniture and sanitary ware.

8.3 The Wareham Basin area is however subject to extensive national landscape designations and international and national nature conservation designations. The BGS suggests that the area contains, perhaps, the most diverse range of potentially conflicting resource development and management pressures in England. This makes the identification of new sites, to ensure continued supply, a difficult task.

8.4 The strategy for the continued supply of ball clay has been prepared following detailed discussions with the industry. The unique nature of the ball clay, its limited occurrence within the UK, the demanding technical specifications of its industry users and the sensitive location in which it is found are all debated within this chapter in order to develop a sustainable strategy for its continued supply.

Spatial Characteristics

8.5 The Dorset ball clay resource in the Wareham Basin is located in the district of Purbeck and covers an area of around 146km^2, shown spatially as the Ball Clay Consultation Area on Figure 16.

8.6 The landscape of the area consists of a gently rolling plain of heathland, farmland and forest and is drained by two main rivers, the Frome and the Piddle, which flow eastward into Poole Harbour. The southern skyline is formed by the Purbeck Ridge, but the most prominent relief feature is Creechbarrow, just north of the ridge (see figure 13). The landscape is characterised by a mosaic of semi-natural habitats, including heathlands, wetlands, woodland, grassland, estuaries, rivers and standing water and the enclosed landscape of the pine forest. Significant urbanisation exists to the east of the area around Wareham and Poole.

8.7 Agricultural improvements, forestry, urbanisation and to a lesser extent mineral extraction have severely fragmented and reduced the extent of many of the natural habitats in the area during the last decade. Due to its range of habitats and aesthetically attractive landscape, the Wareham Basin has extensive landscape and nature conservation designations. A large part of the area, and most of the basin south of the River Frome, lies in the Dorset Area of Outstanding Natural Beauty (AONB). In addition, the unspoilt coastline is protected as Heritage Coast and World Heritage Site. There are extensive areas of international nature conservation importance, including Ramsar sites, sites designated as Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) (see figure 14). National nature conservation sites include National Nature Reserves (NNRs) and Sites of Special Scientific Interest (SSSIs). The nature conservation importance of the area is well known and the protection of the remaining heathland and wetland is of national and local importance.

8.8 Scheduled Monuments and other non-scheduled features and archaeological sites, Conservation Areas and buildings of historic importance, such as Creech Grange, are found throughout the Wareham Basin.

8.9 Extensive areas of the basin are in the ownership of the National Trust or under commercial forestry. In addition, large areas are also used by the Ministry of Defence for training purposes.

8.10 The beauty of this area is recognised by many people who visit in large numbers. The area provides many recreation opportunities for visitors, such as walking and cycling routes, National Trust destinations as well as the historic villages within the district. Tourism makes a large contribution to the economy of this part of Dorset.

Ball Clay - the Current Picture

8.11 Ball clay operations in Dorset are currently managed by one company. Extraction is currently entirely from surface quarries. Operations comprise three large quarries; Dorey's and Povington, situated within the AONB, south of the River Frome, plus a third operation of a similar scale at Trigon located north west of Wareham outside the AONB. In addition, two smaller operations Furzeyground and Hawkpost are also situated within the AONB. Extracted material is transported by lorry to a centralised storage and processing facility at Furzebrook, near Wareham, for blending. From these five sites around 20 saleable clays are currently being worked and are producing in the region of 21 saleable blends. Figure 13 shows the permitted site boundaries for operational sites. It should be noted that this does not always relate to working areas as some areas within permitted areas are being restored or in the case of Trigon, being used for landfill.

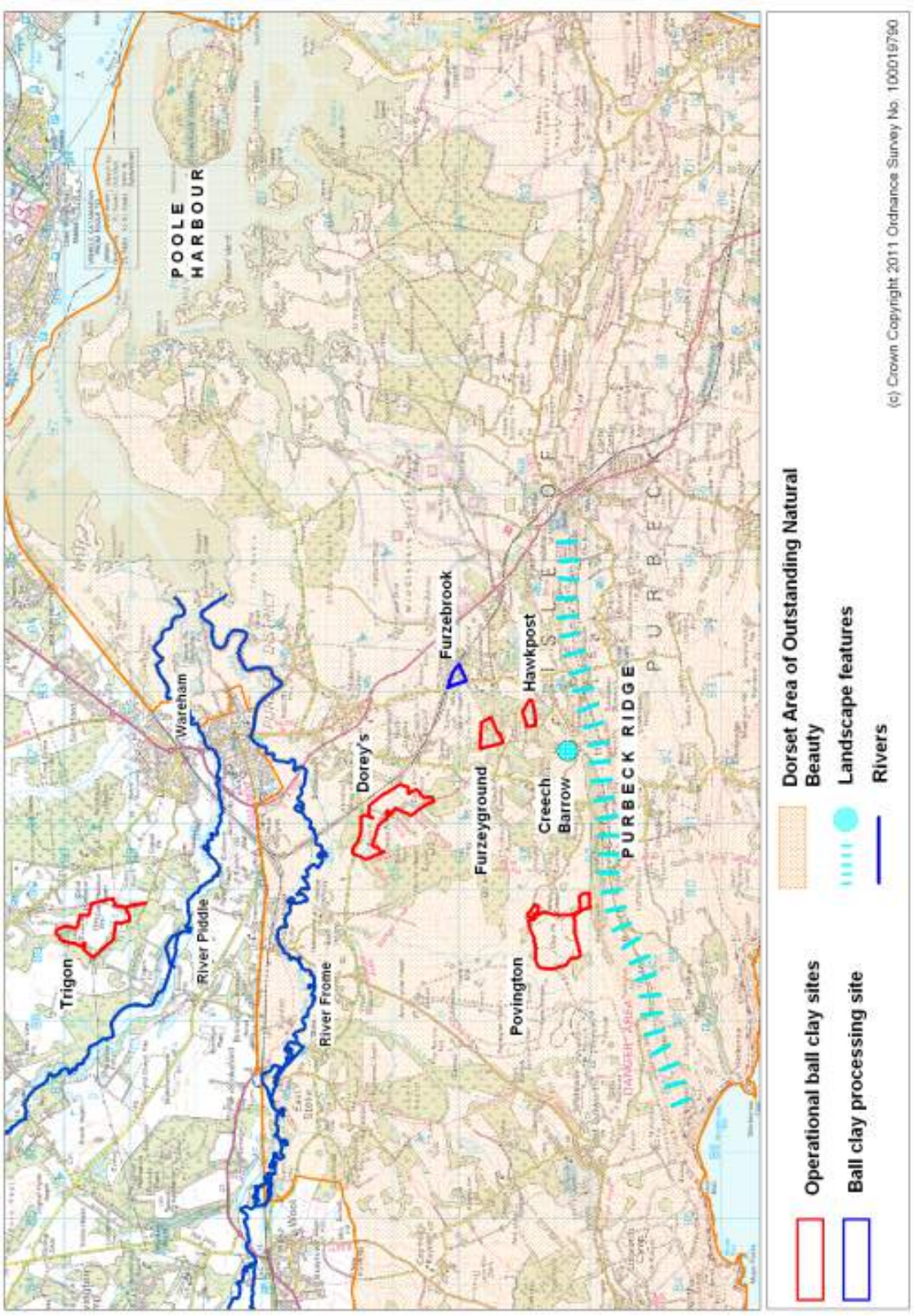
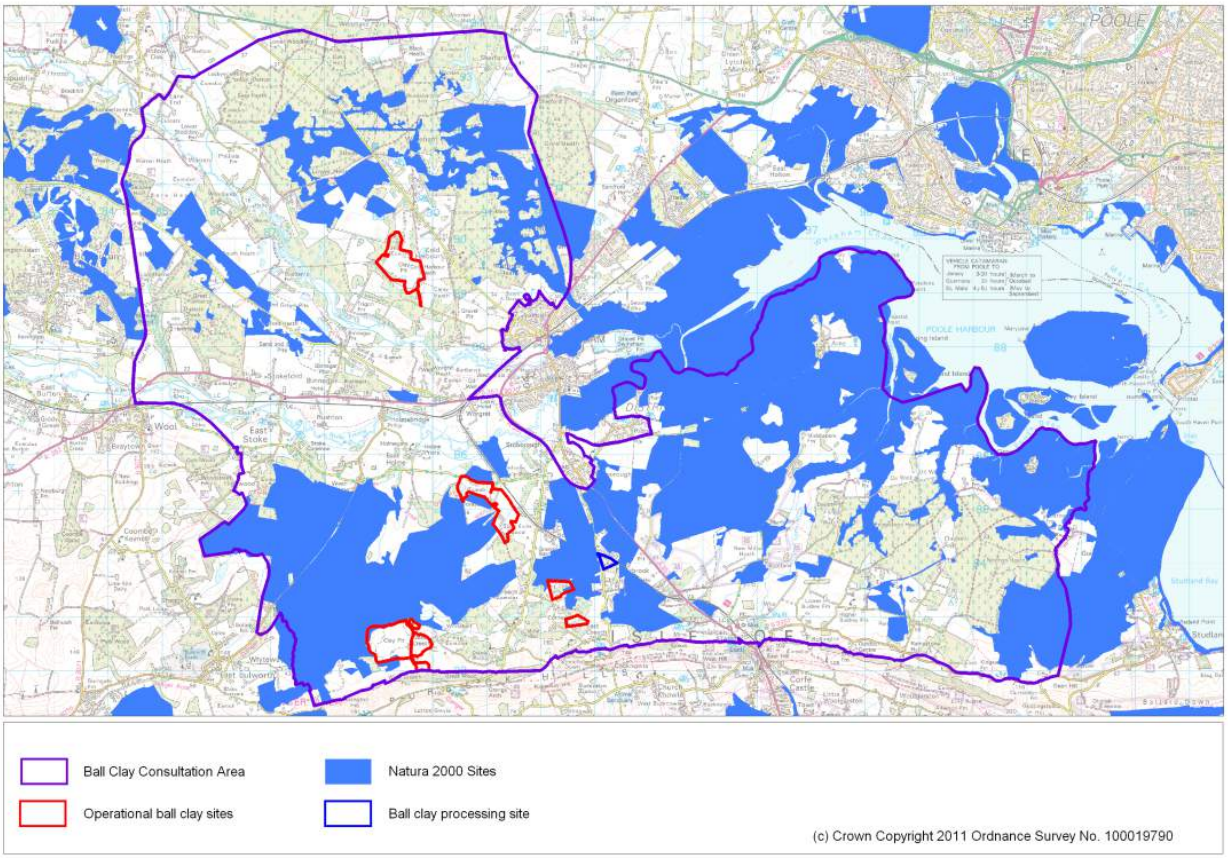


Figure 13 Existing Ball clay sites, landscape designation and features

Figure 14 Existing Ball clay sites and Ecological designations



8.12 Ball clay is a mineral of high export value. The economic importance of ball clay to the economy of Dorset is highlighted by the quantities exported. Based on anticipated 2011 figures around 64% of ball clay produced is transported in bulk to Poole and 9% by container to Southampton both for onward travel internationally, largely to Europe. About 20% of clay remains within the UK, mainly for use in the potteries of Staffordshire.

8.13 In addition, about 7% of ball clay produced is taken to South Devon for blending with clays produced there. Ball clays found in Dorset are of such a high quality they are needed to blend with Devon clays in order to produce products with specific properties.

8.14 The ball clay industry currently employs 40 people directly in Dorset and around a further 60 indirectly, as well as supporting local businesses.

8.15 Annual production of ball clay has fluctuated largely due to the global economic downturn. Considering production trends over the last 30 years and from discussions with the ball clay industry it is anticipated that future average annual demand for ball clay in Dorset will be around 250,000 tonnes per annum (tpa). This figure is higher than in previous years but would allow the Plan and the ball clay industry to adapt to changing circumstances and market fluctuation and allow for growth. This reflects the Governments commitment to securing economic growth through positive planning.

8.16 Estimated reserves at the five permitted ball clay sites totalled 1.5 million tonnes in July 2012. Based on an assumed anticipated annual demand of 250,000 tpa this gives an overall theoretical life of 6 years. Each individual site is important in contributing towards the current product range required by the market. It is misleading to give a figure for the overall life of Dorset ball clay reserves, but the figure gives an indication of the scale of permitted reserves, demonstrating the need for further reserves to be found to ensure continued supply. The larger sites, Doreys, Povington and Trigon, produce key ingredients or grades for producing the majority of clay products. The grades found at Furzeyground are more limited than those found at the larger operational sites and so make a lesser contribution to the overall longevity of the business in Dorset.

8.17 An application has recently been permitted for an extension to Doreys. This extension will provide additional life and contribute to the range of clay blends produced in Dorset (the additional permitted reserves have not been included in the figures that follow in this chapter). Notwithstanding this extension, if ball clay production is to continue, further reserves will be required.

Key Issues facing the extraction of ball clay

8.18 The key issue facing the extraction of ball clay in Dorset is the maintenance of a continued supply of a range of clays, whilst recognising the need to conserve and enhance the areas of high landscape and ecological importance in which the clay is located. The importance of ensuring this range of clays is vital to the continued viability of production of ball clay from Dorset.

8.19 The ball clay industry in Dorset is sustained by material of higher grade which requires very little secondary processing other than simply shredding. Importantly, this high grade ball clay is used to upgrade poorer-grade clays. Ball clay is a finite resource and the ball clay industry actively optimises the blending of clay grades to husband the resource in order to maintain the full range of blended products for as long a period as possible.

8.20 The British Geological Survey (BGS) was commissioned by Dorset County Council to undertake a study of the distribution of the ball clay resource. One of the key conclusions of this study was that the highest quality ball clays are found in the middle to west and southeast parts of the Wareham Basin. This study has been drawn upon in the preparation of the overall strategy for the provision of ball clay.

8.21 The Poole Formation hosts the ball clay resources and four 'host' clays are recognised. Of these, the Creekmoor Clay is the most important host clay, providing the highest quality ball clay (containing the lowest average silica and highest kaolinite values). It is these clays that are blended with more inferior clays, particularly found in sites outside the AONB (i.e. Trigon), in order to meet industry requirements. Making the best use of high quality materials is a key component to sustainable development.

8.22 The Creekmoor Clay outcrops in two principal areas south of the River Frome. These are within the AONB and much of the resource coincides with major conservation designations. In addition, parts of the outcrop are currently under commercial forestry. Although other subcrop areas lie north of the River Frome and outside the AONB, the BGS study confirms that it is unlikely that significant quantities of commercial quality ball clay will be found. Even if suitable ball clay deposits can be found within these less sensitive landscape areas there are important ecological designations which would need to be protected.

8.23 Based on quality and likely operational requirements, the main potential for developing Creekmoor Clay has been identified as south of the River Frome and south west of Wareham. Both areas are situated within the AONB and include ecologically sensitive areas.

Addressing the key issues

8.24 In order to address the key issues and develop a strategy to support the continued supply of ball clay, a detailed assessment [(10)]was undertaken to consider landscape and ecological related impacts contained within the ball clay bearing areas, and the ability of these areas to accept further extraction. There are many other constraints that will impact on future ball clay extraction but landscape and ecology were considered to be the most strategically significant. It should be noted that the assessment was undertaken primarily at a strategic level and that further detailed assessments will be needed through the development of the Mineral Sites Plan and/or applications.

8.25 The assessment of landscape character, designations, European protected and Biodiversity Action Plan species, ancient woodland and other important habitats concluded that impacts would be adverse. The impacts on much of the visual resources will be substantial

10 Background Paper 6: Potential Ball Clay Sites, Landscape and Ecology Impact Assessment, March 2011

and severe. This reflects the sensitivity of the receiving landscape which is highly designated, is very popular, accessible and a key recreational resource, contributing to south east Dorset's Green Infrastructure Network.

8.26 The assessment demonstrated the sensitivity of the ball clay bearing areas. The strategy for the continued production of ball clay must be carefully balanced against these competing priorities. However, given the recognised national and international importance of ball clay and its economic value, significant weight must be given to its continued extraction.

Delivering the Strategy - Provision of future reserves

8.27 Unlike aggregates, there are currently no national guidelines on future ball clay demand/provision or landbank requirements. Future demand relies on industry figures, supported by BGS information[11] The amount of ball clay for which the Minerals Strategy and the Mineral Sites Plan should plan for can be calculated as:

Requirements for new sites = Anticipated annual demand x Years covered by the Plan - Existing permitted reserves

Requirement for new sites = (250,000 x16) - 1.5 million tonnes [12]

Requirement for new sites = 2.5 million tonnes

8.28 Work has been undertaken to establish whether the aspiration of 2.5 million tonnes is an achievable figure given the highly constrained environment of the ball clay bearing area. A 'Call for Sites' exercise was carried out asking industry to put forward potential future sites for consideration by the Mineral Planning Authority. This exercise provided evidence which has been developed through further discussions and the identification of further reserves for consideration.

8.29 The level of demand being planned for within this strategy is higher than historic levels to allow for growth. Actual demand over a 7 year period (2005-2011) equates to an average of 220,000tpa. If this trend continues levels of permitted reserves will last longer than the 6 years suggested in para 8.16.

8.30 The strategy for the extraction of ball clay supports a steady supply to ensure provision of the range of grades demanded by the industry. However, this is in the context of the environmental constraints. The Mineral Planning Authority will work with and encourage the ball clay industry to identify and bring forward sites for allocation in the Mineral Sites Plan to ensure that provision can be maintained. It is acknowledged that significant investment is needed to undertake the complex geological investigation and environmental assessments required to allocate sites. It is therefore accepted the Mineral Sites Plan will be unlikely to identify sufficient sites to allow provision to be maintained at a level of 250,000 tpa during the plan period. However, the plan contains a suite of policies to assess planning applications as they come forward. This flexibility should allow ball clay to be delivered throughout the

11 Background Paper 06 - BGS Ball Clay: A Geological Appraisal to Inform Resource Planning

12 Note: Given the timing of the Doreys planning permission the additional permitted reserves have not been included in this calculation)

plan period, subject to sites meeting rigorous testing requirements set out within the relevant polices. If the industry is unable to come forward with sustainable sites then there will be a need to review the Plan and the level of provision being planned for.

8.31 Potential future sites for ball clay extraction are considered to be capable of delivering about 870,000 tonnes of reserves. When combined with existing permitted reserves (1.5 million tonnes), this would provide just short of ten years of supply if the assumed level of demand of 250,000 tonnes is maintained. Beyond this amount, the supply of ball clay is less certain, principally due to the landscape and ecological sensitivity of the area in which ball clay tends to be found.

Future applications likely to provide around 870,000 tonnes

Remaining shortfall = Requirement for new sites - future applications

Remaining shortfall = 2.5 mt - 870,000 tonnes= 1.63 million tonnes

8.32 Detailed testing of specific sites through the Mineral Sites Plan, and the planning applications process, including consideration of mitigation measures, will be required to demonstrate that delivering the strategy can be achieved without causing significant environmental impacts, unless otherwise justified through Habitat Regulations Assessment. Total provision over the plan period, based on an anticipated extraction rate of 250,000 tpa, should not exceed 2.5 million tonnes (excluding existing permitted reserves). Although the plan covers a period up to the end of 2028 it is likely that a review will take place well before this time. This review will enable any issues with regards to the deliverability of all grades of ball clay beyond 2028 to be identified.

8.33 Once the Mineral Sites Plan has tested in detail the ability of the ball clay bearing areas to produce and identify sites, regular monitoring will be essential to ensure that the aim of maintaining an adequate and steady supply of ball clay is realistic and achievable.

8.34 If monitoring highlights that the overall strategic aim of maintaining a steady supply of ball clay is unlikely to be delivered, it may become necessary to review this element of the Minerals Strategy in order to include more achievable and realistic levels of provision. This revision could consider a gradual reduction in the production or could reassess the constraints of the ball clay bearing area and possible mitigation which may allow extraction to take place. Conversely, if monitoring highlights that actual production is lower than the anticipated rate of 250,000 tpa this can be taken into account when considering the need to bring forward further sites.

Strategic Location of Sites

8.35 Future sites will need to be identified within the ball clay consultation area. Potential areas identified through the landscape and ecology assessment, and shown on figure 15 as 'Areas of Less Environmental Sensitivity', are an important starting point for the industry to investigate further as land within this area is generally less constrained than the wider Ball Clay Consultation Area. Careful attention should be paid when considering sites on the fringe of the Areas of Less Environmental Sensitivity that may lie in close proximity to European sites and could be indirectly affected by minerals development.

8.36 Although site investigation should be directed towards the Areas of Less Environmental Sensitivity proposals for sites, both within and outside the Areas of Less Environmental Sensitivity will be required in order to deliver an adequate and steady supply of all grades of ball clay. Sites will be considered on their individual merits in accordance with the policies in this plan. Formal Appropriate Assessment may be required for some sites when further detail is known either at the Mineral Sites Plan or planning application stage.

8.37 Impact on amenity and access considerations are also likely to limit the number of sites that come forward from within the identified 'Areas of Less Environmental Sensitivity'. The 'Areas of Less Environmental Sensitivity' do not include Trigon Heath SNCI and Old Farm Plantation which are being managed for their heathland wildlife for the duration of the Trigon landfill planning consent.

8.38 Strip mining, or similar small scale extraction methods, being discreet and unobtrusive, are thought to be suitable methods of extraction within sensitive landscapes. Rolling restoration could minimise landscape impacts by limiting the amount of land open to mining at any one time. Extraction could be screened by woodland or other existing natural features and sites could be generally dispersed.

8.39 Further investigations will be needed to identify sites where it would be acceptable to extract specific clays, such as Creekmoor Clay on a small scale. This might be where it is outcropping or found close to the surface. Such opportunities may exist within a broad area centred around Grange Hill and West Creech Hill and in the south around Norden Station and North East of Corfe, shown on Figure 15. It is acknowledged that these are particularly sensitive areas in terms of landscape, including historic cultural landscape, and ecology. The Mineral Planning Authority is keen to work with the industry to identify such opportunities through the Mineral Sites Plan. Site access, layout, design, working methods and phased restoration would need to be carefully planned in these sensitive locations including the identification of opportunities for creating priority habitats.

8.40 There is currently no evidence to show that an adverse effect on the integrity of European sites is a real possibility, such that it would create problems for the delivery of the strategy. However, it is acknowledged that for ball clay a situation may arise in the latter part of the plan period where the tests of Article 6 (4) may need to be considered and Government guidance *'Habitats and Wild Birds Directives: Guidance on the application of article 6 (4)'* (Defra, 2012) should be followed in such an instance.

8.41 No sites will be allocated within the Mineral Sites Plan for ball clay extraction which fall within and/or are shown likely to adversely affect the integrity of European designated nature conservation sites. Detailed assessment of ecological and hydrological implications of ball clay extraction close to European sites will be required for sites to be taken forward into the Mineral Sites Plan or made the subject of an application.

8.42 Further safeguards exist. It is a matter of law that at the Mineral Sites Plan stage, and at the application stage, further Habitats Regulations Assessment will be necessary.

8.43 The sites identified within the Mineral Sites Plan will comply with all relevant policies in the Minerals Strategy and will be preferred over other non-identified sites. However, where there is a demonstrated need for an alternative site, such as where allocated sites do not contain the required grade of ball clay, the Minerals Strategy provides guidance to deal with these applications.

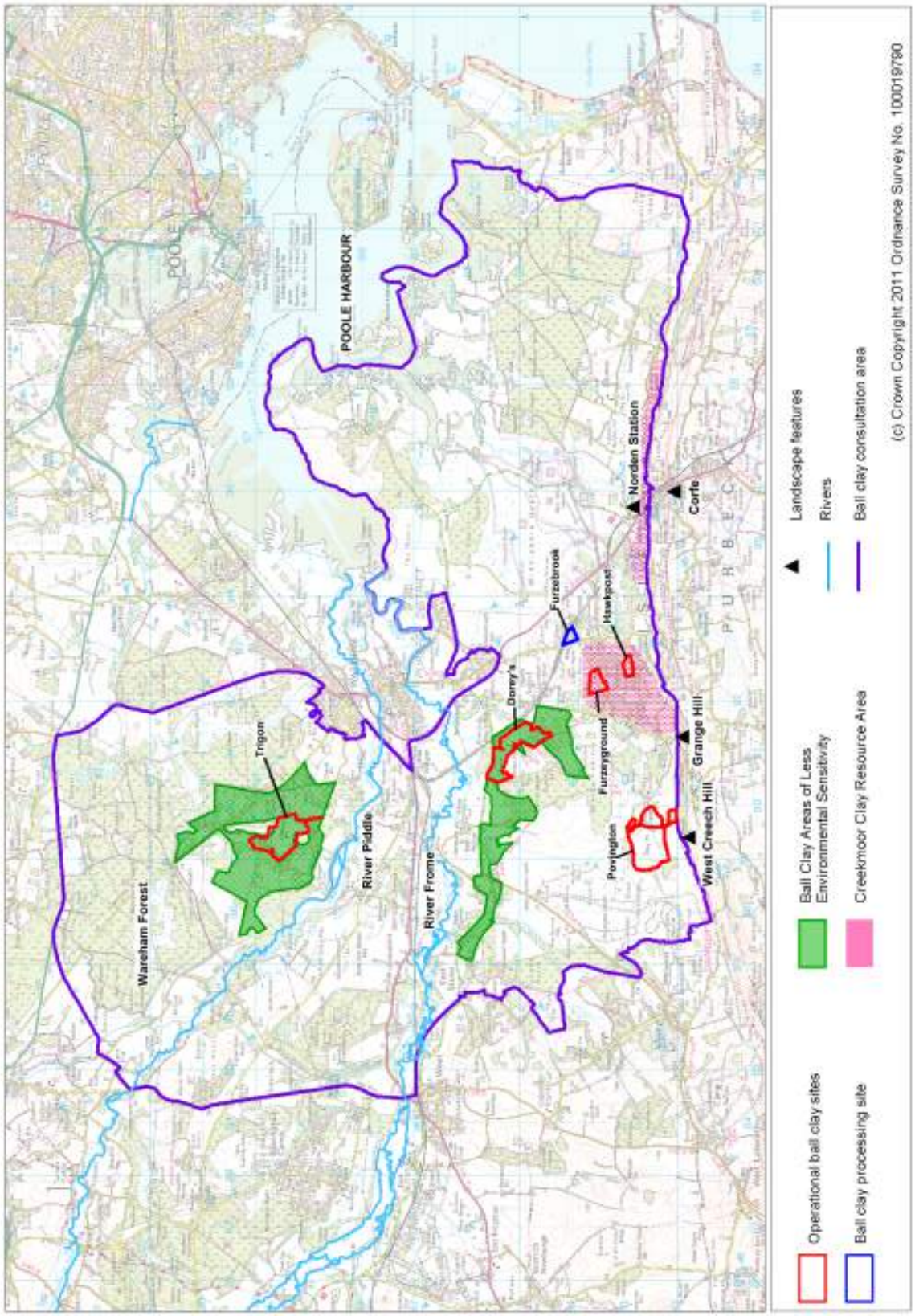


Figure 15 Potential Areas for Future Ball Clay Extraction

Policy BC1 - Provision of Ball Clay

The Mineral Planning Authority will aim to ensure an adequate and steady supply of all grades of ball clay through the provision of up to 2.5 million tonnes of reserves over the plan period from within the Ball Clay Consultation Area.

The sensitive environment of the ball clay bearing areas should be recognised and permission will be granted for the extraction of ball clay where all of the following specific criteria are met:

a. The scale, nature, location and duration of the proposal would not have a significant impact on the landscape character and quality of the AONB.
b. Where sites are situated within the AONB, the scale and method of working should be appropriate in scale and specifically tailored to reduce harm.
c. 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 the 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, unless in exceptional circumstances the provisions of Article 6(4) of the Habitats Directive are met.
d. A detailed restoration and aftercare scheme demonstrates how the enhancement of landscape, nature conservation habitats and geodiversity interest will be achieved, as appropriate.

Where there are sites allocated in the Mineral Sites Plan and applications are for additional sites, the need for a particular grade of clay should be demonstrated.

Consideration of Alternatives

8.44 The only real alternative to the extraction of ball clay through opencast methods is underground mining. Underground mining has taken place in the past, but the closure of the last mines at Aldermoor and Norden occurred in August 1999. Underground mining has obvious advantages to the environment over opencast extraction, particularly in terms of landscape impact, and as such has been explored for its future potential. At present, the industry and the BGS[13] believe that due to the complex geology of the Wareham Basin and stringent health and safety requirements, underground mining is currently economically unviable.

8.45 However, it is possible that underground mining may become the only feasible method of extracting the better quality clays due to environmental constraints and exhaustion of more accessible deposits. It is thought that any shift in extraction method will be beyond this plan period. The Mineral Planning Authority will encourage the ball clay industry to investigate this method further, where there are environmental benefits from doing so.

13 Background Paper 5: Ball Clay: A Geological Reappraisal to Inform Resource Planning

Transportation of Ball Clay

8.46 Due to the poor road network that exists locally within much of the ball clay bearing areas, access arrangements and transportation should be given careful consideration. This should ensure adverse impacts are minimised.

8.47 The extracted ball clay from the five operational sites needs to be transported to the Furzebrook processing site. Due to the short distances involved, the most efficient means to do this is by road. Rail is no longer a realistic method of transportation over these short distances. The only potential alternative method is through a network of conveyors although these do have the potential to give rise to visual and noise pollution and will rarely be a practical or economic alternative.

8.48 A large percentage of ball clay production from Dorset is shipped overseas either through Poole or Southampton ports. For logistical reasons the ball clay is transported to the ports by road in campaigns therefore it is not possible to stagger the transportation of the mineral and store it at the ports ready for onward shipping. This is due to the limited storage space at Poole Port and because the quality of clay will deteriorate if stored. Ball clay is generally 'dug to order' to allow the appropriate properties to be retained in the clays and so achieve a satisfactory product. Ball clay is also transported within the UK to places such as Staffordshire. This material is currently being transported on the road, being the most economic method of transportation. The Minerals Strategy should encourage the transportation of ball clay by rail internally within the UK.

8.49 Poole Harbour Commissioners would support further investigation into the delivery of ball clay by rail to the port if this could become economically feasible. Presently there is no cargo being handled through the port by rail, although the infrastructure remains intact to do so.

Policy BC2 - Ball Clay Transportation

Where the Mineral Planning Authority has identified unacceptable adverse impacts arising from road borne transportation of ball clay, operators will be expected to use alternative means of transport for the movement of ball clay to and from Furzebrook and for the onward distribution of ball clay from Furzebrook where practical.

8.50 To ensure that European wildlife sites are safeguarded from any effects of development, proposals should comply with Policy DM5 (Chapter 16).

The Associated Sale of Sand and Gravel

8.51 The overburden at ball clay pits can include large amounts of sand which has the potential to be sold as construction aggregate. Working more than one mineral product from a single pit has its benefits by reducing the total amount of ground opened for mineral extraction at any one time, potentially maximising efficiency, minimising waste material and reducing the need for primary material extracted elsewhere.

8.52 Proposals for working the ball clay can include the extraction of sand, which would be stockpiled for later sale to the market, or transported to a nearby sand and gravel site for processing. The quantities of sand and gravel present at some sites could greatly exceed the volume of ball clay.

8.53 Taking this material off site for sale does have negative impacts. It leads to a reduction in the amount of material available for restoration, possibly affecting final landforms. If stockpiled it may have landscape impacts. Finally it results in an increase in the volume of lorry traffic on the surrounding road network.

8.54 Extraction of sand and gravel in association with ball clay is currently occurring at Trigon. Annual output is around 50,000 tonnes per annum. However, the clay extraction causes a much larger tonnage to be dug and stored. As Trigon is situated outside the AONB and with relatively good transport links, this is seen as an acceptable level of activity. Sand and gravel extraction is also occurring at Dorey's Pit. Doreys is situated within the AONB and specific controls exist on this site restricting output of sand and gravel to 30,000 tonnes per annum. Although these examples of current permitted extraction levels are a useful guide, and demonstrate the sensitivity of the AONB, each proposal for sand and gravel extraction will be considered on its merits taking into account all material planning considerations relevant to the individual site before reaching any planning decision.

8.55 Due to its national and international importance, extraction of ball clay has been and will continue to be acceptable within the AONB, subject to environmental safeguards. Sand and gravel is relatively common. It is unlikely to be possible to demonstrate that exceptional circumstances exist that would justify extraction of large volumes of sand and gravel within the AONB in the public interest, even if in conjunction with ball clay extraction.

8.56 The strategy for dealing with future extraction of sand and gravel from ball clay sites gives appropriate consideration to acceptable volumes from sites within the AONB. It is not appropriate to specify a numerical limit for what is considered an acceptable level of extraction. Suitable levels will be considered on a site by site basis, bearing in mind how the site is proposed to be worked, arrangements for stockpiling and processing and access arrangements. Mineral extracted within the AONB will comprise only the interburden and overburden sand which is necessarily dug in order to access the ball clay.

8.57 Extraction, within the AONB, will also require thoroughly considered restoration schemes, establishing original landforms, such as heathland or field systems. Large water bodies are unlikely to be in keeping with the natural environment of the ball clay bearing area.

8.58 The extraction of sand and gravel in association with ball clay in sites outside the AONB would generally be acceptable. This issue is dealt with in further detail in Chapter 7.

Policy BC3 - Extraction of Sand and Gravel in association with Ball Clay within the AONB

Extraction of sand and gravel in association with ball clay workings within the Dorset AONB will be permitted where it can be demonstrated that:

a. the material is derived from the overburden and interburden;

b. the operation is of a reasonable scale;

c. any adverse visual and landscape impacts are avoided or capable of mitigation to the satisfaction of the Mineral Planning Authority;

d. restoration of the site would not be compromised, maintaining and enhancing the area's landscape character and ecology;

e. the road network can safely accommodate the additional vehicle movements without significant environmental or amenity impact; and

f. any adverse impacts on the ecology, amenity and recreational areas are capable of mitigation to the satisfaction of the Mineral Planning Authority.

Restoration

8.59 The issue of restoration, aftercare and afteruse of minerals development is dealt with in detail in Chapter 15. However, due to the particular ecological importance of the Wareham Basin there are considered to be specific opportunities that should be considered when identifying sites for ball clay extraction and developing restoration proposals.

8.60 A proactive approach has been taken through the Landscape and Ecology Impact Assessment to identify specific opportunities where restoration could help create and link up fragmented areas of heathland and areas of open access land. The Mineral Planning Authority will continue to work to identify further opportunities and actively encourage the minerals industry to look for positive outcomes of minerals extraction.

8.61 Restoration should also have regard to the AONB Management Plan which provides a framework for the conservation and enhancement of the Dorset AONB guiding all activities that might affect it.

Ball Clay Consultation Area

8.62 An important aspect of sustainable development is to safeguard resources from sterilisation, by other forms of development, for the use of future generations. In 1953, a ball clay consultation area was defined covering some 146km^2 of the Wareham Basin. This has recently been updated in consultation with the industry and the revised boundary is shown on Figure 16.

8.63 The consultation area creates a boundary within which Purbeck District Council are required to consult Dorset County Council over planning applications for non-minerals development. Further detail on safeguarding and development proposals that trigger consultation are included within Chapter 14.

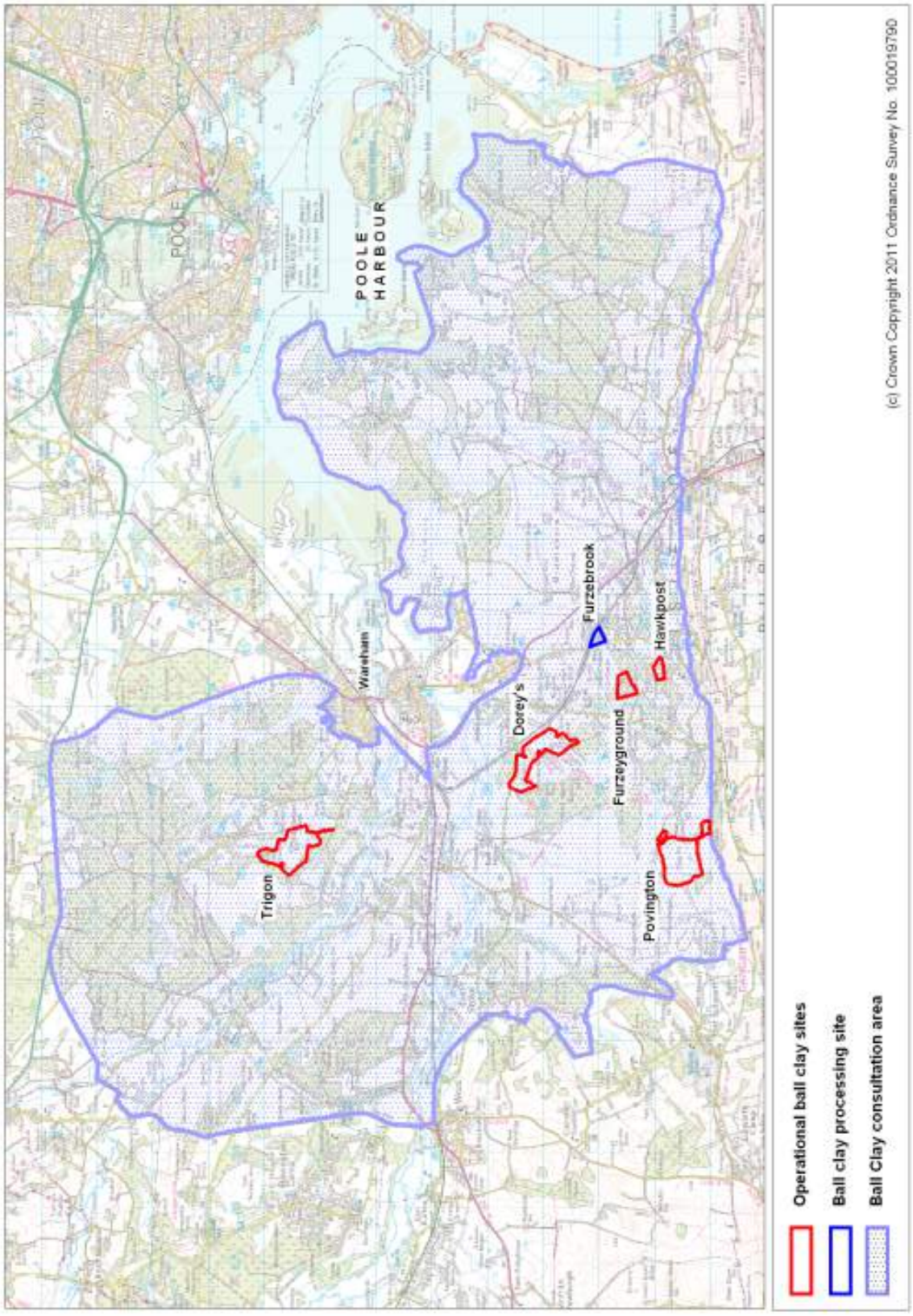


Figure 16 Revised ball clay consultation area

9 Purbeck Stone

9 Purbeck Stone

Key Issue

Identifying the most appropriate locations to maintain provision of Purbeck Stone, a building stone of national and local heritage significance, in an area of high landscape sensitivity.

The need to access the range of Purbeck Stone beds in order to meet demand whilst establishing a scale of extraction appropriate to the sensitive area.

Introduction

9.1 Purbeck Stone is a natural limestone, recognised as a principal source of building stone in England[14].

9.2 The quarrying of Purbeck Stone is a long established industry which for centuries has been providing dimension stone for local building and for use in some major cities. It continues to be in demand for a range of uses, in particular for repair and restoration of historic buildings, for architectural masonry, including building blocks, fine architectural features, walling, roofing and paving and internal flooring, and for monumental and ornamental work. It also has a market as a substitute material for other stones that are no longer available.

9.3 Many villages and conservation areas in Purbeck require the continued supply of Purbeck Stone in repair work and for new build in the vernacular material to maintain their special character. Additionally, many prestigious and ecclesiastical buildings throughout the south of England and beyond contain work in Purbeck stone and marble and demonstrate a wider than local need.

9.4 Over 100 people are employed in the Purbeck Stone industry, demonstrating its economic value to the area. Its cultural value as part of the landscape character of the Purbeck plateau is acknowledged [15]. Quarrying also provides exposures of the Purbeck beds, contributing to enhanced geodiversity and opportunities for scientific study, including through the recovery of fossils.

14 MPS1 Practice Guide
15 Conserving Character: Landscape Character Assessment and Management Guidance for the Dorset AONB (Dorset AONB 2008)

Spatial Characteristics

9.5 Purbeck Stone is generally confined to an area of about 10km^2 within the coastal zone south of Swanage and west to Worth Matravers. This limestone plateau is characterised by an exposed landscape of limestone grasslands and arable fields dotted with small limestone quarries and associated features. The long tradition of stone extraction has also shaped a near continuous network of stone walls and extraction routes. Moving northwards from Kingston Road, the landscape changes to a sweeping and secluded clay valley enclosed by a dramatic chalk escarpment to the north and the undulating limestone ridge to the south.

9.6 The area is of considerable environmental quality. The stone resource lies wholly within the Dorset AONB and partially within the Heritage Coast, demonstrating its exceptional scenic quality, with this part of the AONB being an important area for tourism. The latter highlights the importance of the area culturally, as well as in landscape terms. Quarrying activity has traditionally been carried out across the Purbeck Plateau for centuries and contributes to the local economy and the area's unique sense of place, with the landscape and ecology of the area having been influenced by quarrying historically. Across Purbeck, the rich historic and built heritage is expressed throughout the landscape. It can be seen in field patterns and their associated hedges and stone walls, the presence of a number of scheduled monuments including medieval strip lynchets and barrows, and a wealth of listed historic buildings and Conservation Areas.

9.7 The village of Worth Matravers and the hamlet of Acton lie within the plateau and are characterised by the use of Purbeck Stone. A large proportion of the plateau is in the ownership of the National Trust.

9.8 The Jurassic Coast World Heritage Site borders the coast around the Purbeck plateau, whilst the St Alban's Head to Durlston Head SAC runs along the coastal area. This contains an outstanding geological, paleontological and geomorphological interest coupled with wildlife interests in the form of vegetated sea cliffs and semi-natural dry grassland and scrubland. A significant part of the coastal area is open access land and the South West Coastpath runs through this area. The Purbeck Stone quarries are generally set back from this coastal area.

Purbeck Stone – The Current Picture

9.9 There are currently eleven active Purbeck Stone quarries, shown on Figure 17, of which nine produce Purbeck Stone of the Middle Purbeck Beds. Two quarries produce stone from the Purbeck Portland Beds. The quarries are worked by six different operators. Operators generally take stone from the quarries to their service area for processing.

9.10 The quarries located on the Purbeck limestone plateau are mostly of the Middle Purbeck Beds, which consists of two sequences – the 'Upper Building Stones' and the 'Lower Building Stones', separated by the Cinder Bed.

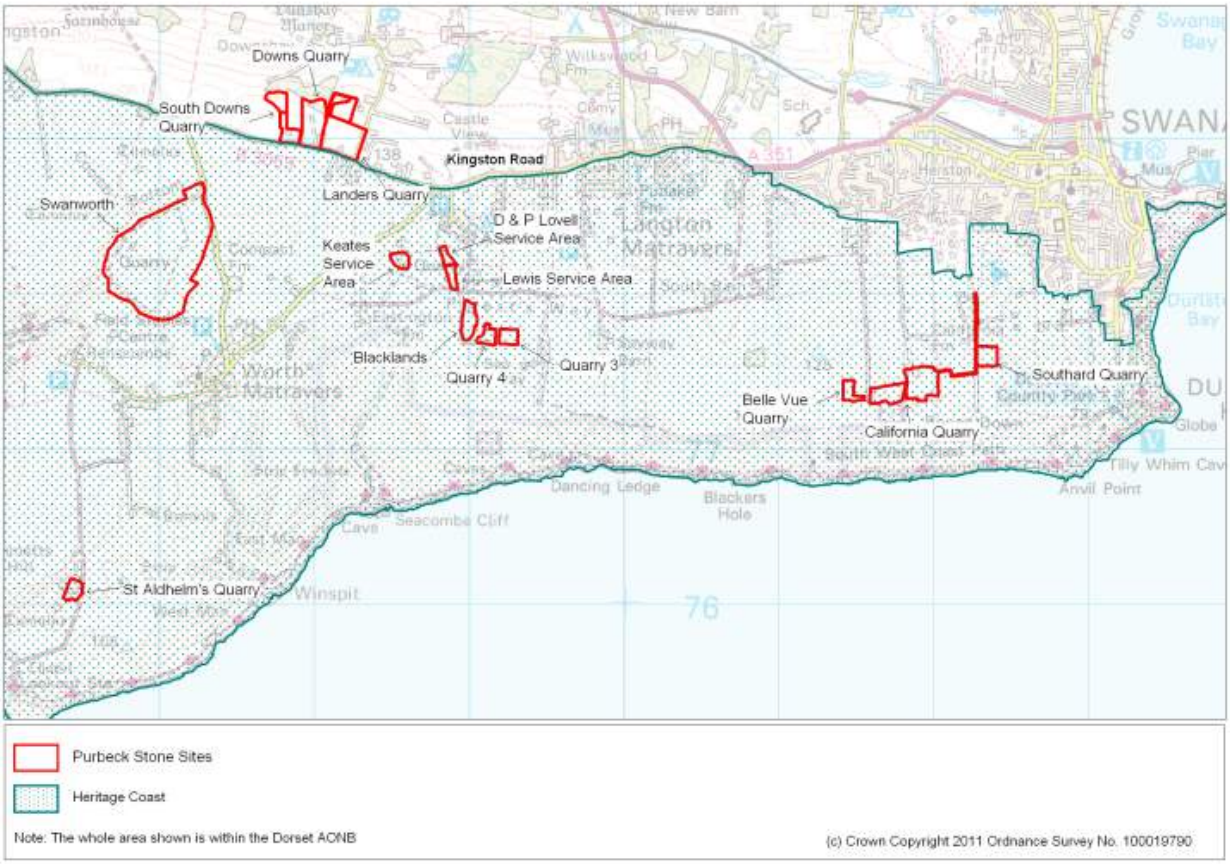
9.11 Within the Upper and Lower Building Stones, groups of useful beds are referred to as veins. The Upper Building Stones are comprised of (in descending order) the Laning Vein, the Freestone and the Downs Vein, whilst the Lower Building Stones comprise the New Vein and several other beds. About a dozen different seams within these veins have been worked at various times. Quarry operators need to be able to access a range of beds at any one time, since they have differing properties, colours and textures and are used for different purposes. Purbeck Stone therefore varies from white/cream to grey/brown to blue/dark grey.

9.12 The Upper Purbeck Beds outcrop on the north facing slope of the valley between Swanage and Corfe Castle. Here, burr, used in many medieval buildings in the area, and up to three seams of Purbeck Marble can be found, as well as some of the Upper Building Stones. Purbeck Marble is a type of Purbeck Stone that can be polished and which can be seen in interior church columns and monuments all over England. There is continued demand for this resource, in particular for use in interior work.

9.13 To the west and on the St. Aldhelm's Head peninsula, the Purbeck Portland Beds are found. They are used for ashlar, architectural and monumental work, for use both within and outside of Purbeck. As well as at St Aldhelm's Quarry, dimension stone has recently begun to be extracted at Swanworth, an aggregate quarry.

9.14 Total annual sales of Purbeck Stone have fluctuated over the past seven years between 15,000 and 24,000 tonnes. From 2005 to 2007, total annual output was in the region of 20 - 24,000 tonnes, with the highest annual output in 2006 at just over 24,000 tonnes. From 2008 to 2010 sales were towards the lower end of the range, with overall output dropping to around 15,000 tonnes, reflecting the economic downturn. Across the active quarries, output can be very small scale for some sites, and larger for others, and can vary annually depending on demand for particular types of stone.

Figure 17 Existing Purbeck Stone Sites (2011)



Key Issues facing the extraction of Purbeck Stone

9.15 The key issue for Purbeck Stone is ensuring the continued provision of this important resource in an area of high landscape sensitivity.

9.16 The industry requires access to the range of Purbeck Stone beds in order to serve the market. Upper and lower building stones are used for different purposes and these are usually accessed from different quarries (or different areas within a quarry). The nature of the geology of the plateau means that both the occurrence and quality of the marketable stone beds is variable and it can therefore be difficult to ascertain the workable reserve across a particular site prior to working.

9.17 At the same time, the AONB status of the area carries with it the highest level of protection. Purbeck Stone working is recognised as a key part of the cultural and historic evolution of the Purbeck plateau landscape. Historically, stone extraction has also taken place on the north facing ridge of the Corfe Valley, and some extraction continues here today. However, people's expectations of landscape quality and condition are greater now than in the past in such sensitive landscapes and quarrying activity must therefore be sensitively planned and managed, with the scale and nature of Purbeck Stone extraction and processing being considered carefully in relation to the objectives of the Dorset AONB.

9.18 Central to the strategy for Purbeck Stone therefore is determining the most appropriate locations for continued extraction and establishing a scale appropriate to this sensitive area.

Delivering the Strategy

Provision of future reserves

9.19 There is no Government guidance as to the amount of Purbeck Stone that needs to be provided. To ensure an adequate and steady supply, in line with national policy, the Mineral Planning Authority must rely on past trends and indications from the industry on future need to identify what provision needs to be made.

9.20 Average sales from 2004 to 2010 were around 18,000 tonnes of saleable stone per year. However, the average figure includes notably lower outputs experienced over the last three years. It is likely that the industry will want to see a return to higher output levels in the order of 20 - 25,000 tonnes. The level of provision should allow for a higher demand for Purbeck Stone to return and for an element of growth to be accommodated. The Minerals Strategy therefore proposes to make provision of Purbeck Stone (including Purbeck-Portland, but excluding Purbeck Marble) of at least 20,000 tonnes per annum on average over the plan period. To achieve this it is possible that the net capacity of allocated and permitted sites may be capable of delivering a higher overall production rate as sites will not all be worked at the same time, nor will they contain identical grades of stone. It is also the case that amounts will vary from year to year in response to demand, and some years may see production up to or even exceeding 25,000 tonnes.

9.21 The Minerals Strategy must determine how much stone needs to be delivered during the plan period, at the level of provision decided, taking into account existing permitted reserves. Remaining total permitted reserves of Purbeck Stone are estimated at between 238,000 and 282,000 tonnes[(16)]. This is based on information provided by the Purbeck Stone operators, taking into account wastage. The higher figure (282,000 tonnes) is the gross reserve and refers to the availability of good quality beds of stone (excluding material returned straight to the ground), whilst the lower figure (238,000 tonnes) is the net reserve and takes account of estimated processing waste.

9.22 Operators advise that waste produced through the processing of Purbeck Stone varies substantially depending on the end product. There is little wastage in stones used for purposes such as walling and rockery, whereas guillotine cut building stone encounters higher wastage due to the necessary offcuts, whilst an even higher proportion of waste occurs with sawn stone. Failures through cracked or vented stones also account for waste in cutting and shaping stone.

9.23 The percentage of waste in processing varies considerably between operators, ranging from around 25% to 60%. This may be partly due to the different machinery used by different companies, and the different range of products each produce.

16 As at May 2011

9.24 It is therefore considered necessary to provide a range of remaining permitted reserve. The higher figure (282,000 tonnes) refers to the availability of good quality beds of stone (excluding material returned straight to the ground). The lower figure (238,000 tonnes) takes account of estimated processing waste. Since the amount of processing waste is variable, it could be that more reserve is yielded than the lower net figure, depending on the market and products produced.

9.25 Total reserve figures only give a broad indication since they mask the availability of different beds of stone. It is known from discussions with the industry that some operators currently have shortages of certain valuable beds, particularly those comprising the upper building stones. Theoretically however, permitted reserves will run out by 2020 - 2022 (at a rate of provision of 25,000 tpa) and it is therefore necessary to make further provision of Purbeck Stone during the plan period.

9.26 The amount that needs to be provided is calculated as:

Annual requirement x Years covered by the Plan - Existing permitted reserves = Requirement for new sites

(20,000t x 17) - 238,000 = 102,000 tonnes

9.27 Provision will therefore be made for an average of at least 20,000 tonnes of saleable Purbeck Stone per year, which equates to 102,000 tonnes, to ensure that there are adequate supplies up until 2028. This provision will be made through the identification of sites in the Minerals Sites Plan, and through a criteria-based approach within a defined area of search.

9.28 It is considered that this figure is achievable within the area of search defined (see below). A 'Call for Sites' exercise has been carried out asking industry and landowners to put forward potential future sites for consideration by the Mineral Planning Authority. This exercise has provided evidence that there are more than sufficient potential resources within the plateau to meet the need throughout the plan period and justify Proposed Policy PK1. However, this relates only to the total amount of Purbeck Stone, rather than confirming the presence of the different types of stone that may be required.

Policy PK1 - Provision of Purbeck Stone

The Mineral Planning Authority will maintain an adequate and steady supply of the full range of Purbeck Stone beds for building and roofing purposes during the plan period.

Provision will be made for an average of at least 20,000 tonnes per annum of saleable Purbeck Stone, excluding Purbeck Marble and Burr.

9.29 Building and roofing stone purposes, stated in Policy PK1, are as defined in the MPS1 Practice Guide (Paragraph 96) and include monumental and ornamental uses. Purbeck Stone is taken to include the Purbeck-Portland beds.

Strategic Location of Sites

9.30 Provision will be made for Purbeck Stone through the identification of specific sites within the Minerals Sites Plan.

9.31 Due to local geology different beds are found at the surface, depending on their location on the plateau, and the quality of Purbeck Stone is variable within the area. The industry is knowledgeable of where the good quality stones occur and it is necessary to rely on sites brought forward by the industry for this reason.

9.32 Identification of sites will depend on the provision of the best available evidence to demonstrate that sites contain usable stone of the type required by operators and that this is relatively close to the surface to avoid excessive overburden having to be moved and stored. This will provide the industry with a high level of certainty that applications made within identified sites and in accordance with policies in this Plan will be permitted. Preference will be given to the development of these identified sites, in accordance with Policy SS2 (Chapter 5) and Policy PK2.

9.33 The identification of specific sites is more challenging than with other minerals, since it is not always possible to be confident of the quality of the different stone beds. These can thin out and disappear, be faulted, fractured or contain clay pockets. In addition, assessing sites for use later in the plan period may not always be possible due to financial or land ownership constraints.

9.34 To provide sufficient flexibility and ensure that the strategy, as expressed in Policy PK1, is deliverable, an area of search has been identified. The area of search is shown in Figure 18. The area of search is a broad area where knowledge of mineral resources is less certain. Within the area of search, planning permission for particular sites could be granted to meet any shortfall in supply, in accordance with Policy PK2, if suitable applications are made. In these cases, the Mineral Planning Authority will need to be satisfied that sites allocated in the Mineral Sites Plan would not maintain a sufficient supply of stone in accordance with Policy PK1. This will require evidence that: an allocated site will not be developed during the plan period; an allocated site does not contain sufficient workable stone; or that there is a need for a specific bed of stone that cannot be delivered from existing permitted or allocated sites.

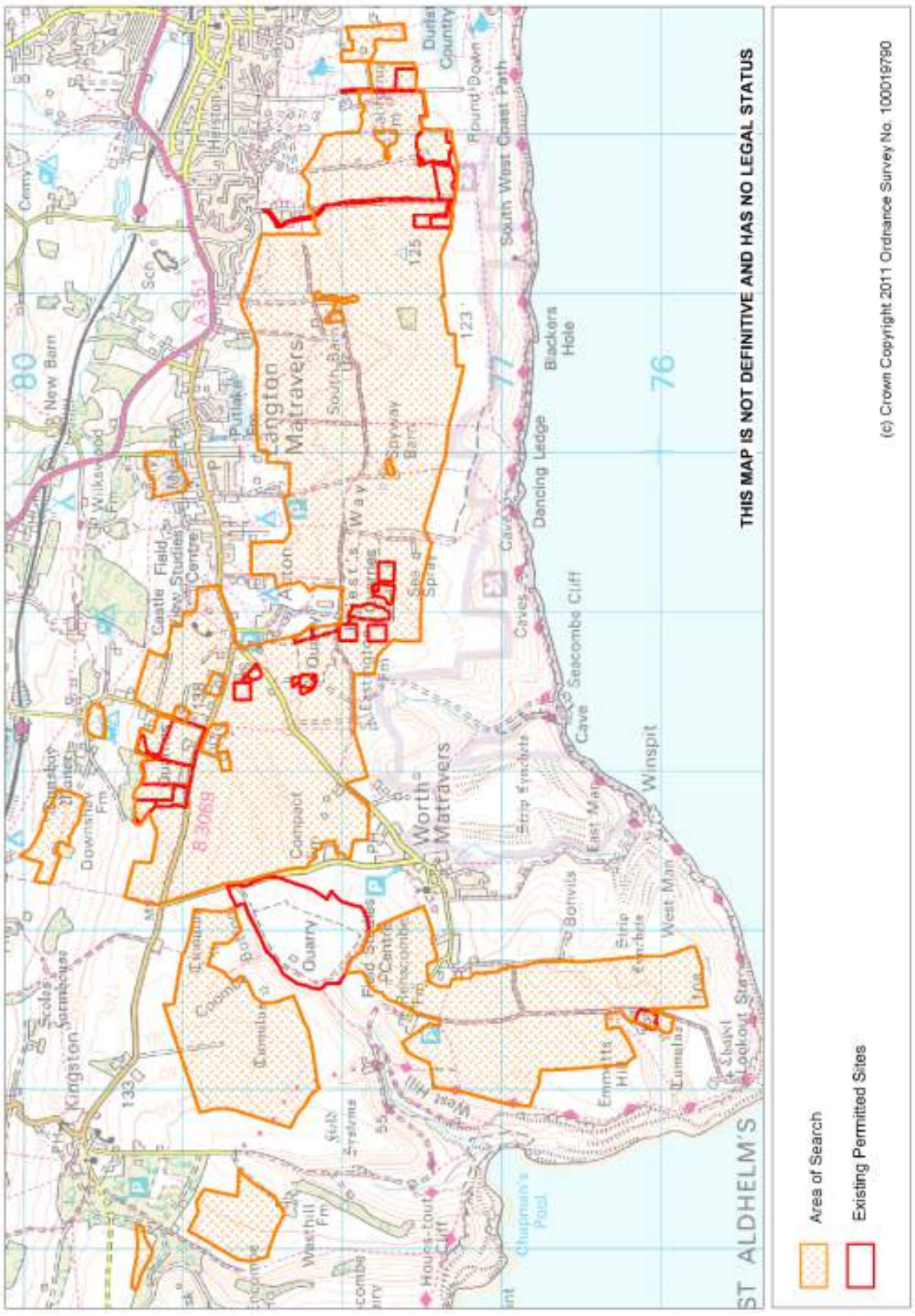


Figure 18 Purbeck Stone Area of Search

9.35 The area of search is based on British Geological Survey (BGS) mapping of the Purbeck Stone resource, excluding built up areas and areas of ecological and archaeological importance. Its boundary was defined through a strategic study to determine an area of least landscape and visual sensitivity[17].

9.36 There may be areas within the area of search which are unsuitable for quarrying on other grounds, due, for example, to impacts on residential amenity, access or localised visual, ecological and archaeological effects or where land ownership constraints are present. Such issues will need to be considered in detail at the Mineral Sites Plan stage and application stages and Policy PK2 provides the specific criteria against which proposals will be considered.

9.37 Purbeck Stone extraction should be generally dispersed and scattered and of a reasonable scale, which is in keeping with the current scale of operations and is capable of meeting the provisions of Policy PK2. Small scale quarrying is more likely to offer opportunities for landscape and visual mitigation to respect the landscape character during the operation of the sites, and provides scope for greater benefits in restoration[18]. This is consistent with the aims of the Dorset AONB Management Plan and the recommendations of the landscape and visual sensitivity study. Avoiding adverse cumulative impacts is a key consideration, which is addressed through Policy PK2.

9.38 Proposals for Purbeck Stone quarries should therefore comply with Policy PK2, and other relevant policies in this plan. In particular, consideration should be given to the policies on development management contained in Chapter 16 and on restoration in Chapter 15. Proposals will need to demonstrate that adverse effects on the environment and amenity can be avoided or effectively mitigated.

9.39 Purbeck Marble and burr are known to outcrop on the north facing slope north of Kingston Road, as far west as Kingston. There may be opportunities within this area for limited extraction of Purbeck Marble or burr, or where there is a need for a specific bed of stone, outside the area of search; but it is acknowledged that this area is particularly sensitive visually. In considering need, the Mineral Planning Authority will have regard to whether the application is principally for a bed of stone which is a significant building material for settlements in Dorset, or major historic buildings elsewhere, but does not occur within existing permitted sites or the Area of Search.

9.40 Where no need for a specific bed of stone can be justified, any proposal for an unallocated site outside of the Area of Search will be resisted unless there is clear evidence that it would deliver a net environmental, economic or social benefit over the granting of a comparable site within the Area of Search. Economic benefit in relation to this policy will be considered in the context of maintaining the overall supply of Purbeck Stone set out in this Plan. The applicant must satisfy the Mineral Planning Authority that the proposal would meet this requirement when considered against all of criteria a-f of Policy PK2 and other relevant policies in this plan.

17 Background Paper 8: Purbeck Stone Resource Area Landscape & Visual Sensitivity Study (DCC 2011). The assessment was made on key viewpoints centred around two zones of sensitivity (the coastal zone and the 'Purbeck ridge') and the settlement edges of Acton, Worth Matravers and Herston.

18 Background Paper 9: Purbeck Stone Extraction in the Dorset Area of Outstanding Natural Beauty (Dorset AONB, 2011)

9.41 Stone extraction is important to the economy in a number of ways. It employs local people and supports a range of skilled jobs. It also provides a supply of stone to various construction projects, including those where the type of stone is vital to maintaining local character or architectural integrity. These economic benefits and maintaining a viable stone industry are therefore important considerations when considering proposals against Policy PK2.

Policy PK2 - Considerations for Purbeck Stone Quarries

Provision for Purbeck Stone will be made by:

i. identifying suitable sites within the Mineral Sites Plan;
ii. permitting applications for non-allocated sites within the Area of Search, as shown on the Policies Map, if they are needed to meet a shortfall in supply that cannot be met through existing permitted or allocated sites; and
iii. permitting applications for non-allocated sites outside of the Area of Search if it can be demonstrated that there is a need for a specific bed of stone that cannot be met by (i) and (ii), or that they would offer a net environmental, economic or social benefit compared with similar development within the Area of Search.

Proposals for Purbeck Stone quarries must meet all of the following criteria:

a. their scale, extent and location are such that adverse impacts upon the environment and amenity can be avoided, minimised or adequately mitigated to the satisfaction of the Mineral Planning Authority;
b. they are accompanied by details of anticipated overburden and evidence of how this will be accommodated within the landform so as not to have a significant impact on the landscape character and quality of the Dorset AONB;
c. there will not be an unacceptable cumulative impact on the landscape character or amenity having regard to activities within the proposed site and other sites within the area;
d. existing characteristic landscape features, such as stone walls, are retained in situ unless the stone is incapable of being viably worked without disturbance to such features. Where disturbance is unavoidable proposals must include measures to minimise disturbance and/or mitigate the impact to an acceptable degree;
e. there would not be unacceptable impacts on the highway network or amenity arising from transporting stone from the quarry to the service area; and
f. in the case of applications for non-allocated sites, they would not prevent or constrain the delivery of an existing permitted or allocated site, having regard to the potential for cumulative impacts to occur.

9.42 To ensure that the St Albans Head to Durlston Head and Isle of Portland to Studland Cliffs Special Areas of Conservation are safeguarded from any effects of development, proposals should comply with Policy DM5 (Chapter 16). Mechanisms through which indirect effects could occur include: effects on species supported by the SAC, disturbance through the proximity of a site (for example through noise or dust), or impacts on the beneficial management of the SAC. Such issues are explained in Chapter 16 and should be fully considered where relevant.

Restoration

9.43 Chapter 15 sets out the approach to restoration in the county. Proposals should be in line with the policies and guidance set out.

9.44 The restoration of Purbeck Stone quarries should provide enhancement opportunities for biodiversity and geodiversity in appropriate areas and should reflect and contribute to the landscape character of the area, having regard to the management plans of the Dorset AONB and the Jurassic Coast World Heritage Site. The Mineral Planning Authority will expect ongoing and phased restoration wherever possible to reduce any negative cumulative impacts. Ensuring that worked out quarries are restored in keeping with the landscape character so as not to increase the overall area of quarry workings will assist in maintaining a balance between undeveloped or restored land and quarries (which is key to the landscape character).

Processing of Purbeck Stone

9.45 In the past the traditional small scale operations would each have had their own low-key processing units in small shacks. There were also masonry yards in Acton and Swanage. Today, some quarries have processing areas and masonry works on site, but there are also central service areas to which stone extracted from a number of different quarries is taken for processing.

9.46 It is necessary for a combination of dressing on site and processing at central service areas to continue in order that the Purbeck Stone industry can operate effectively. Operations such as sawing should take place within a building, at a service area, in order to minimise noise and visual intrusion. However there are some portable operations that can take place outside and at the quarry site without unacceptable impact, namely hand splitting for the production of, for example, roofing tile, walling and cladding, and small guillotining operations.

9.47 There is visual and landscape impact associated with central service areas, particularly along Kingston Road, where two of the largest service areas sit side by side, and on residential amenity, particularly around Acton and Blacklands. It is unlikely that new service areas will be permitted, in addition to those that already exist, due to the likely cumulative impacts that would result.

9.48 New service areas will be restricted where they would result in adverse impact, either cumulatively or in their own right, unless they are for replacement facilities which will deliver a net overall improvement.

9.49 It is important to ensure that impacts from the existing service areas are mitigated. Opportunities for improvements to the existing service areas will be sought by the Mineral Planning Authority wherever possible, principally through negotiations on planning applications for new quarries or ancillary development. This is important where there is an impact on residential amenity, through noise and visual impact. This is particularly relevant for Landers Quarry, Blacklands Quarry and service areas close to Acton. The Mineral Planning Authority will seek the establishment of appropriate buffers between service areas and residential properties. This might include the restoration of land and appropriate vegetation to offer buffering. In addition, where there is an impact on sensitive public rights of way improvements may be appropriate.

Policy PK3 - Service Areas

Proposals including the processing of Purbeck Stone will only be permitted if any sawing equipment is located within a building to minimise adverse impact on amenity.

Improvements to existing service areas, including the establishment of appropriate buffers between service areas and residential properties, will be sought wherever the opportunity arises.

Proposals for new service areas which would have an adverse impact on landscape or amenity will only be permitted if they are a replacement for an existing service area and they would result in a net reduction in adverse impacts.

Crushing of Purbeck Stone

9.50 The extraction of Purbeck Stone gives rise to a large percentage of waste material, through the occurrence of low grade stone unsuitable for use as dimension stone and through processing. The industry has some aspiration to use waste material for the non-traditional use of construction aggregate, through crushing.

9.51 The Mineral Planning Authority supports the extraction of Purbeck Stone primarily for traditional dimension stone uses. It will only support the crushing of Purbeck Stone in exceptional circumstances because this activity could limit the availability of material for restoration. The backfilling of Purbeck Stone workings to restore them to near original ground levels is important to minimise any long term impact on the landscape character of the area. It is considered that this should be the primary use of waste material.

9.52 Noise and dust associated with the use of mobile crushers could also have a detrimental impact on the wider environment, particularly in terms of the cumulative effect of additional quarry activities and on the tranquillity of the Dorset AONB. Additionally, the proximity of some quarries and/or service areas to the village of Acton and other properties, as well as other sensitive receptors such as public footpaths, means that crushing is unlikely to be acceptable in such areas.

9.53 It is recognised that there may be a demand locally for crushed Purbeck Stone, where imported stone is not appropriate, such as for use on local tracks and paths. The importation of material for such uses has potential for causing increased traffic movements to the area.

9.54 Swanworth Quarry is the only aggregates quarry on the plateau. It currently supplies crushed Purbeck Stone to the local area and is permitted until 2017. Swanworth is much larger in scale than the other quarries on the plateau.

9.55 The other, smaller, quarries primarily provide dimension stone. Economic implications mean that crushing operations at these sites are likely to be self limiting, with the Aggregates Levy and the relatively remote location of Purbeck Stone quarries making the material expensive.

9.56 Small scale and temporary crushing activity would be supported for use within a quarry site or service area (i.e. for haul roads or internal tracks) where it can be demonstrated that the stone is not required for the restoration of the site to an appropriate landform and there would not be any unacceptable impacts.

9.57 The crushing of surplus Purbeck Stone will be subject to Policy PK4 and other relevant policies within this plan (in particular see Policies DM1 and DM2). To ensure that European wildlife sites are safeguarded from any effects, proposals should comply with Policy DM5 (Chapter 16).

Policy PK4 - Crushing of Purbeck Stone at Dimension Stone Quarries

The Mineral Planning Authority will seek to restrict the crushing of stone at dimension stone quarries in Purbeck to a level which is small in scale, temporary and ancillary to the extraction and working of dimension stone quarried from the site, where the material is required for use within a quarry or service area. In all cases such activities should:

a. ensure there will be no adverse impact upon features, people or activities sensitive to disturbance from it;
b. only use stone which is not required for the restoration of the quarry site to an appropriate landform; and
c. be limited to stone extracted from Purbeck Stone quarries.

Permission will only be granted on a temporary basis for the crushing of surplus Purbeck Stone in addition to use within a quarry or service area where it can be demonstrated that there is an identified local need, it would not generate unacceptable impacts on the highway network and subject to a and b above.

Importation of Building Stone

9.58 Some Purbeck Stone operators import building stone sourced from outside the Isle of Purbeck and in some cases from other countries to increase their product ranges. There is some debate as to the need for and acceptability of this activity. Some operators would argue they need to import other stones for viability reasons. Others argue that there is no need for this to make the businesses viable and that it can undermine the important Purbeck Stone industry.

9.59 Importation can increase the adverse impacts of quarrying through increased lorry movements and visual impacts associated with the storage of the stone, especially given the sites' relatively remote and sensitive location within the Dorset AONB and in the Heritage Coast. The importation of stones from other areas simply for resale is not considered appropriate as this sort of activity can take place in more suitable and accessible geographical locations. The importation of stone from outside the Isle of Purbeck for the purposes of storing it and then selling it on unprocessed is therefore discouraged. The majority of operators are of the opinion that if they are given access to sufficient beds of stone then they can operate effectively without importation for resale.

9.60 It can be argued that importation of other stones for processing at Purbeck's service areas enables operators to work at full capacity and maintain local masonry jobs. For these reasons, importation may be acceptable in limited amounts at current levels. It is important to ensure that this remains a minor activity in relation to Purbeck Stone operations. Limits will be placed on imports in order to ensure impacts are minimised.

Policy PK5 - Importation of Stone from Outside Purbeck

The Mineral Planning Authority will only permit the processing and storage and resale of stone arising from outside Purbeck Stone quarries where it can be demonstrated that this is necessary to maintain employment and/or masonry skills and where this would be no more than a minor activity of a scale which does not undermine the viability of the Purbeck Stone or generate unacceptable impacts upon amenity or the highway network.

10 Portland Stone

10 Portland Stone

Key Issue - Portland Stone

Maintaining provision of Portland Stone for its heritage significance and use as a principal building stone, in an area extensively and historically quarried.

The impact of surface quarrying on the landscape, environment and local amenity due to lack of control over operations, including restoration, with the majority of the permitted area covered by one old planning permission with minimal conditions.

Introduction

10.1 Portland Stone is a limestone recognised as a principal source of building stone in England. Its quality freestones have famously been used for public buildings throughout Great Britain and internationally. It has a local, regional and national market for use in new build, repair and restoration, masonry, flooring, paving and rock armour. Portland Stone's whiteness is its most recognisable characteristic. Quarrying on Portland is a long established industry, with the stone having been used for many prestigious and now listed buildings outside Dorset, particularly in London. Notably, Sir Christopher Wren used Portland Stone in the re-building of many churches in London after the Great Fire, including St Paul's Cathedral.

Spatial Characteristics

10.2 Portland Stone is extracted on the Isle of Portland - a dramatic and distinctive limestone peninsula situated at the end of Chesil Beach. Portland limestone dominates both the natural and built landscape with many structures and buildings made of Portland Stone. It is key to and defines the area's cultural and industrial history. Remains of old workings can be seen across the island. Extensive quarrying has therefore influenced the island's character.

10.3 There are many conflicting demands on Portland's relatively small area. The coastline is designated as part of the Jurassic Coast World Heritage Site and as a Special Area of Conservation. There are many areas of geological, archaeological and ecological significance, some of which exist on unworked land but many of which are a result of past quarrying activities. Such areas are generally older quarries which contain significant industrial archaeology of historic quarrying techniques unique to Portland. The more recent quarries are generally larger voids resulting from modern quarrying practices.

Portland Stone – the current picture

10.4 There are currently six active quarries on Portland (one of which produces only crushed aggregate) and three underground mines. The quarries and mines are operated by two companies. Total production of dimension stone between 2006 - 2012 was in the region of 8000 - 10,000 cubic metres per year and there are around 100 people employed in the industry.

10.5 Three beds of dimension stone are extracted. The Whitbed and Basebed are dimension stones used in new build, cladding, restoration, flooring and paving. The Basebed is also a monumental and carving stone and is used for headstones. The Roach is mainly used for sea defences and was the material used for many of Portland's own buildings. The stones extracted from each quarry can also vary in terms of their character. Maintaining availability of the range of Portland Stone beds is important for the viability of the industry and to meet the needs of the market.

10.6 Much of the current extraction takes place under a large composite planning permission granted in 1951, covering around two thirds of the plateau forming the top of the island (known as Tophill). This permission for quarrying lasts until 2042 and is outlined in red on Figure 19. Within the permission, some areas remain currently unworked, others are active quarries and others have been previously worked and have been either abandoned or backfilled. Additionally, a number of areas have been modified under the Habitats Regulations, whilst in others legal agreements have been secured restricting quarrying activities. A small additional area was granted in 1971 for a strip of land along the southern border of Broadcroft Quarry. All sites that have planning permission for quarrying under these consents are subject to the Review of Old Mineral Planning Permissions (ROMP) under the Environment Act 1995, which requires reviews of mineral planning permissions granted prior to 1982 to bring them up to modern environmental standards[19].

19 See Chapter 16 for further information (Para. 16.75-16.78)

10.7 An additional 9ha area was also permitted later in the 1950s. This area remains unworked and is classified as dormant. More recently, a number of permissions have been granted for the mining of Portland Stone.

10.8 In addition to the extraction of dimension stone, the quarries covered by the 1951 permission have permission to extract stone for the purpose of crushing it as aggregate. More stone is produced annually for crushing than as dimension stone.

10.9 Crushed rock from Portland can be divided into two categories:

- Primary aggregate – derived from crushing of the cherty series, which underlies the dimension stone beds
- Secondary aggregate – derived from the overburden and waste stone from the dimension stone quarrying and masonry processes

10.10 This chapter focuses on the provision of Portland Stone for dimension stone purposes. However, extraction of the cherty series is referenced later in the chapter in relation to the impacts it has on Portland. The strategy for the provision of crushed rock, including the contribution that Portland Stone makes to it, is contained within Chapter 7: Aggregates.

Figure 19 Portland Stone Existing Permissions

Key Issues facing the extraction of Portland Stone

10.11 The 1951 permission has led to quarrying of large parts of the island with, to date, little planned restoration. A key issue relating to the extraction of stone on Portland is the lack of control the Mineral Planning Authority has over existing workings and restoration because there are few conditions attached to the permission to protect the environment and local amenity. This has significantly affected the landscape and impacted on the local community, with quarry working areas close to residential properties. The continued quarrying of stone from within permitted but sensitive areas is a significant issue.

10.12 There is an ongoing local, regional and national demand for Portland Stone for the repair and restoration of historic buildings, new build, masonry and monumental uses. This must be achieved with reduced impact on local amenity and the environment.

Spatial Strategy

10.13 The strategy for the supply of Portland Stone is to secure more environmentally acceptable ways of working and to minimise the impacts of quarrying.

10.14 Firstly, mining will be encouraged as an alternative to surface quarrying. This includes mining of existing permitted reserves of dimension stone and the mining of new reserves in exchange for the relinquishment of areas with existing permission for surface quarrying. The term 'mining' is taken to include both underground mining and high wall extraction in this chapter.

10.15 Secondly, improvements to the old planning permission will be sought and working will be directed away from sensitive areas where possible. Critical to this is the identification of areas within the old permission where it is considered that surface quarrying would create a significant impact on the environment and/or amenity. The Review of Old Minerals Permissions will play an important role in minimising the impacts of quarrying.

10.16 Mining has advantages over surface quarrying in that most of the operation is out of sight, there is a reduction in loss of surface features, there is significantly less noise and dust and no blasting vibration. Mining is considered a beneficial way of reducing impacts on local communities and protecting the landscape character and surface interests of currently unworked areas, whilst providing access to the important Portland Stone resource. Mining can also achieve a reduction in carbon emissions in comparison to surface quarrying, since there is no need to remove the overburden to access to dimension stone beds.

10.17 Underground and high wall mining can allow for reserves to be maximised by enabling dimension stone to be extracted from within sensitive areas. High wall mining, in particular, enables the extraction of stone from quarry faces along boundary areas using a series of small mines. The stone extracted this way might otherwise be unavailable since larger stand-offs from other land-uses are usually necessary with surface quarrying.

10.18 It is acknowledged that some modern surface quarrying techniques also present more environmentally acceptable ways of working. The use of sawing, pressure bags and chemical and diamond blade cutting all reduce the need for blasting and enable a smaller stand-off from adjoining land uses to be possible. Such techniques will also be encouraged as part of this strategy.

Provision of future reserves

10.19 Total current permitted reserves of Portland dimension stone are estimated to stand at over 450,000 cubic metres[(20)]. Based on current output levels this would mean that existing permitted reserves are adequate for around 50 years.

10.20 Although this is a substantial reserve, the Mineral Planning Authority considers that quarrying some areas of permitted reserve would result in a significant impact for environmental or amenity reasons. These areas are identified later in this chapter. Even if these areas were not to be worked as a result of any negotiations, there would still be sufficient reserves of dimension stone for over 35 years.

10.21 This is more than an adequate supply for the plan period. However, the strategy facilitates permission for mining to be granted in exchange for the relinquishment of areas considered sensitive to surface quarrying.

10.22 Reserve figures only reflect the total amount of Portland Stone available. To maintain an adequate supply of Portland Stone, the range of stone beds is required by the industry.

Presumption in Favour of Mining

10.23 Policy PD1 establishes a presumption in favour of underground and/or high wall mining.

20 At end 2012

10.24 Potential areas of opportunity for mining are identified in Figures 20 and 21. All the areas identified are accessible from either existing quarries or existing mine permissions. Those areas identified within the current permissions already have permission for surface quarrying and would require separate planning permission for mining.

10.25 The areas of opportunity are considered to have potential for mining based on the presence of Portland Stone. Their identification does not imply that they will be granted planning permission. Specific sites for mining will be identified in the Mineral Sites Plan, taking into account technical considerations, land ownership and potential impacts. Continued discussions with the industry will be necessary to ensure that adequate provision is made.

10.26 Proposals for mining outside of specific sites (once allocated), either within or outside of the areas of opportunity, will be considered on their merits. This could include areas such as the Coastal Strip and the area west of this on the southern part of the island. Further work would need to be undertaken to identify suitable portal locations for mining in this area.

10.27 In order to address the key issues identified and to offset any negative environmental impacts of mining, the policy requires significant environmental gains to be provided for permission for mining to be granted. This is expected to be achieved through the agreed relinquishment of an existing permission or part of a permission on a sensitive area on Portland where possible, or improved restoration on other land within the 1951 permission.

10.28 Mine stability will need to be fully considered in any application. Long term stability must be proven both during mine operations and following restoration. Any proposal would need to consider and address the impact of the mine entrance on the environment and local amenity. The cumulative impact of a mine with other operations should also be considered.

10.29 Mine voids have the potential to be backfilled with the waste rock generated from the mining operation. This is encouraged as it reduces the impact of HGV movements on Portland. Backfilling the open space is not for the purposes of stabilisation, although it would afford this by default. There is also the potential to use mines for other uses once the stone has been removed. Where mine portals coincide with habitat designations, restoration to nature conservation is likely to be appropriate. Achieving high quality restoration of mines should be integral to proposals for development (see Chapter 15 on Restoration).

10.30 Proposals for mining should comply with Policy PD1, as well as other relevant policies in this plan (such as the Development Management policies). To ensure that European wildlife sites are safeguarded from any effects of development, proposals should comply with Policy DM5 (Chapter 16).

Policy PD1 - Underground Mining and High Wall Extraction of Portland Stone

Proposals for underground mining and high wall extraction of Portland dimension stone, on the Isle of Portland, will be permitted where they meet all of the following criteria:

a. the mine is designed to ensure the long term stability of overlying land;
b. any adverse impacts from the creation of a mine entrance can be avoided or mitigated to the satisfaction of the Mineral Planning Authority;
c. significant environmental gains will be provided, which will generally be achieved through agreement to relinquish permission for surface quarrying of at least an equivalent amount of stone in Areas Sensitive to Surface Quarrying, as identified on the Policies Map;
d. material used for backfilling is sourced from within the proposed mine, wherever possible; and
e. suitable and safe proposals are made for the closure and sealing of the mine or an identified beneficial afteruse is identified; and surface areas are restored for a beneficial afteruse.

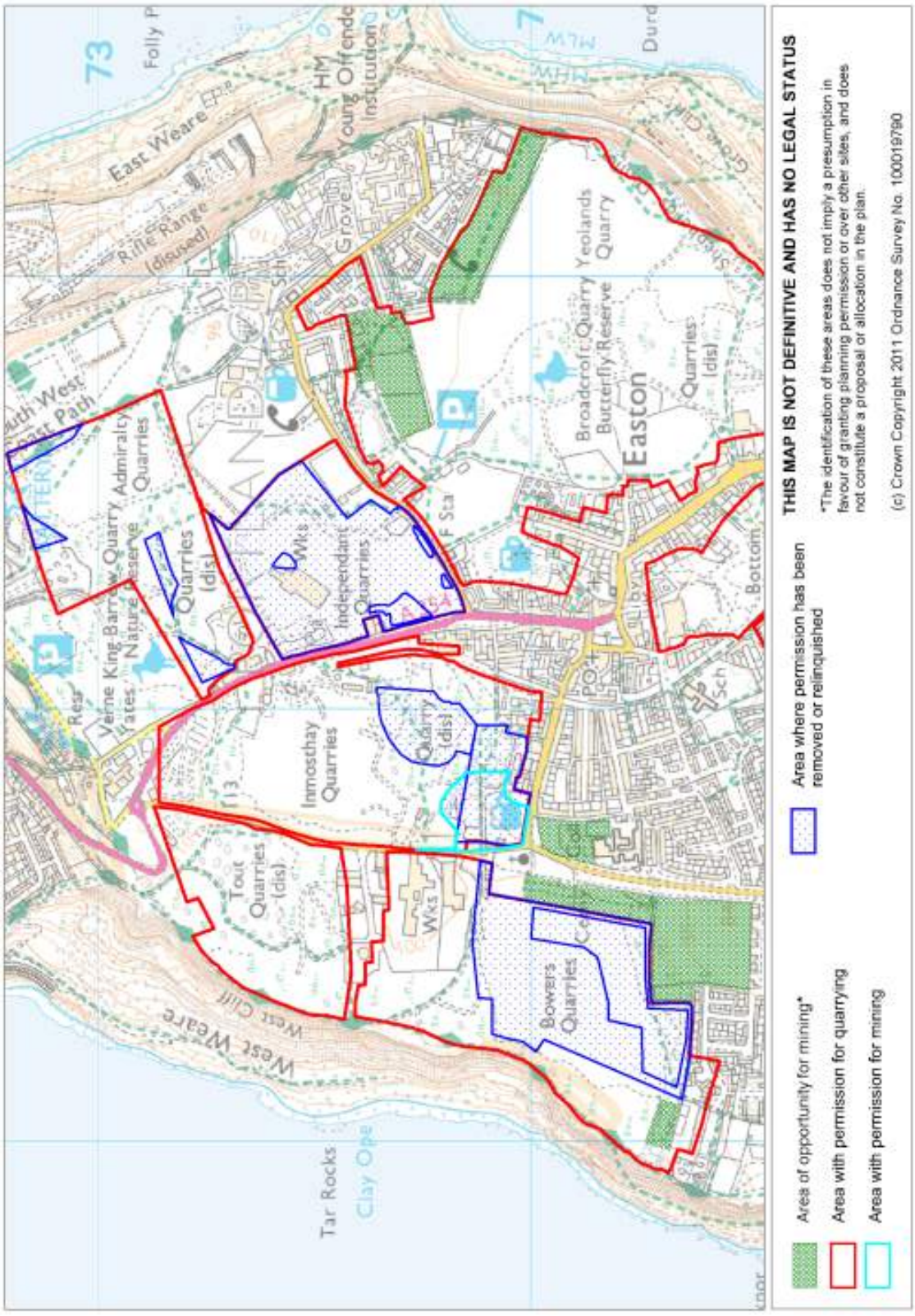


Figure 20 Areas of opportunity for mining - north

Figure 21 Areas of opportunity for mining - south

Further Surface Quarrying

10.31 Policy PD2 sets out a presumption against further surface quarrying of Portland Stone, unless such a proposal would result in a net environmental gain.

10.32 It is unlikely that granting further permission for surface quarrying will be appropriate, except in exceptional circumstances. A landscape assessment carried out to assess the potential impact of further surface quarrying on Portland concluded that further quarrying beyond the composite permission area would have a negative cumulative impact on the island's landscape character [(21)].

10.33 It is acknowledged that limited circumstances may arise which could offer a net environmental benefit. If granting permission would result in significant environmental improvements, through for example the agreed relinquishment of an existing permission on Portland, or part of a permission, or improved restoration on other land within the 1951 permission, then such a permission might be justified. Areas identified as particularly sensitive to surface quarrying are considered in detail below. Additionally, more environmentally acceptable surface quarrying techniques such as sawing, cutting and the use of pressure bags would be expected.

10.34 Proposals should therefore comply with Policy PD2 and other relevant policies in this plan (including the Development Management policies).

Policy PD2 - Surface Quarrying of Portland Stone

The Mineral Planning Authority will only grant permission for surface quarrying of Portland Stone on the Isle of Portland if:

a. significant environmental gains which deliver a net environmental benefit will be provided, which will generally be achieved through the agreement to relinquish permission for surface quarrying for at least an equivalent amount of stone in Areas Sensitive to Surface Quarrying, as identified on the Policies Map; and
b. environmentally acceptable surface quarrying techniques will be employed.

Areas Sensitive to Surface Quarrying

10.35 Areas on Portland within the 1951 permission that would be sensitive to surface quarrying and where impacts on the environment would be significant have been identified. These areas fall into three categories:

- preferred areas for voluntary relinquishment of permission for any surface extraction;

21 Background Paper 11: Isle of Portland Landscape Assessment (DCC 2010, amended 2011)

- preferred areas for voluntary relinquishment of permission to extract the cherty series; and
- areas where the establishment of an appropriate stand-off or buffer to protect residential amenity is preferred.

10.36 Figures 22 and 23 set out these areas. They are based on an assessment of the potential impacts of surface quarrying on a range of factors, including landscape, ecology, archaeology, residential amenity and the economy.

10.37 Extraction of the cherty series substantially increases the depth of the void created, thereby affecting restoration. The intensification and prolonging of operations as a result of crushing the cherty series for aggregate purposes can also have an impact on residential amenity including through increased HGV movements. This has been taken into consideration in identifying one area preferred for the relinquishment of permission to extract the cherty series only (as opposed to surface quarrying of the overlying dimension stone).

10.38 Areas where a stand-off should be established are where the permitted area adjoins residential properties and where future surface quarrying is considered possible. The specific extent of any buffers negotiated will need to be decided case by case on the basis of further environmental assessment.

10.39 It is intended that preservation of the identified sensitive areas may be achieved through voluntary means on the basis of negotiations between the Mineral Planning Authority and industry. Mechanisms to achieve this may be firstly through the granting of permission to mine an area as an alternative to quarrying it. Alternatively, permission may be granted for a mine or for an area of surface quarrying outside of the currently permitted area. Policies PD1 and PD2 require that significant environmental gains are achieved in such cases, which is likely to be through the relinquishment of permission to quarry an identified sensitive area.

10.40 Additionally, Policy PD3 seeks the relinquishment of permission for surface quarrying in these areas when opportunities arise. This may be achieved either through planning obligations sought in negotiations undertaken on applications for ancillary mining and quarrying development or through the Review of Old Mineral Planning Permissions process. (See also Policy PD4).

10.41 The above mechanisms secure the protection of sensitive areas by voluntary means only. Where working would affect the Special Area of Conservation, the Mineral Planning Authority would be able to issue a Modification Order, under section 97 of the Town and Country Planning Act 1990 (as amended), to ensure that such interests are protected.

Policy PD3 - Relinquishment of Permission

The relinquishment of planning permission for surface extraction or extraction of stone from the cherty series will be sought when opportunities arise within the Areas Sensitive to Surface Quarrying, namely those areas identified on the Policies Map, and in other areas where significant environmental improvements would result.

10.42 The appropriate scale of relinquishment of permission for surface quarrying will need to be determined on a case by case basis, depending on the scale and nature of the application. The significance of any environmental impacts relating to the proposal will be considered.

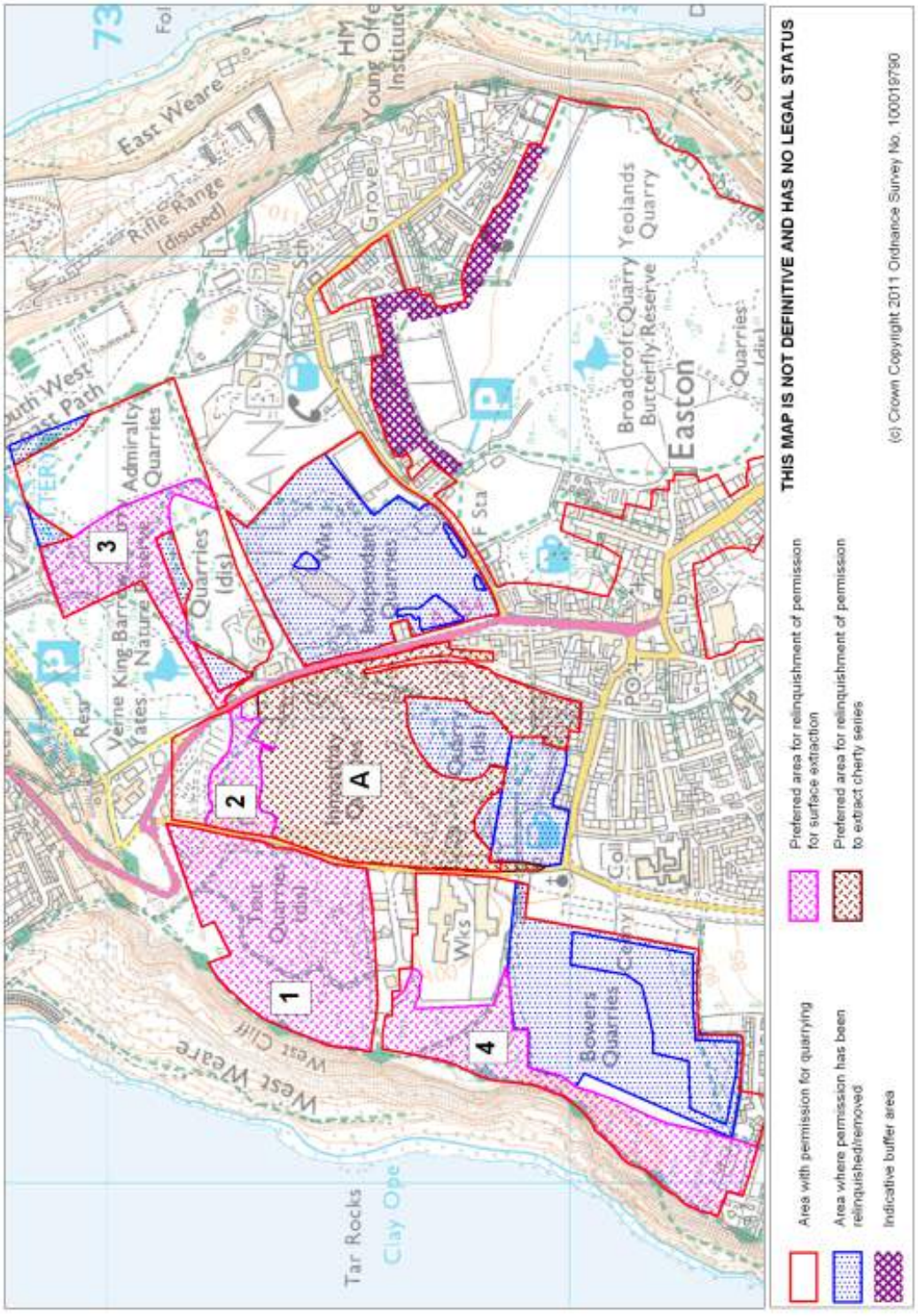
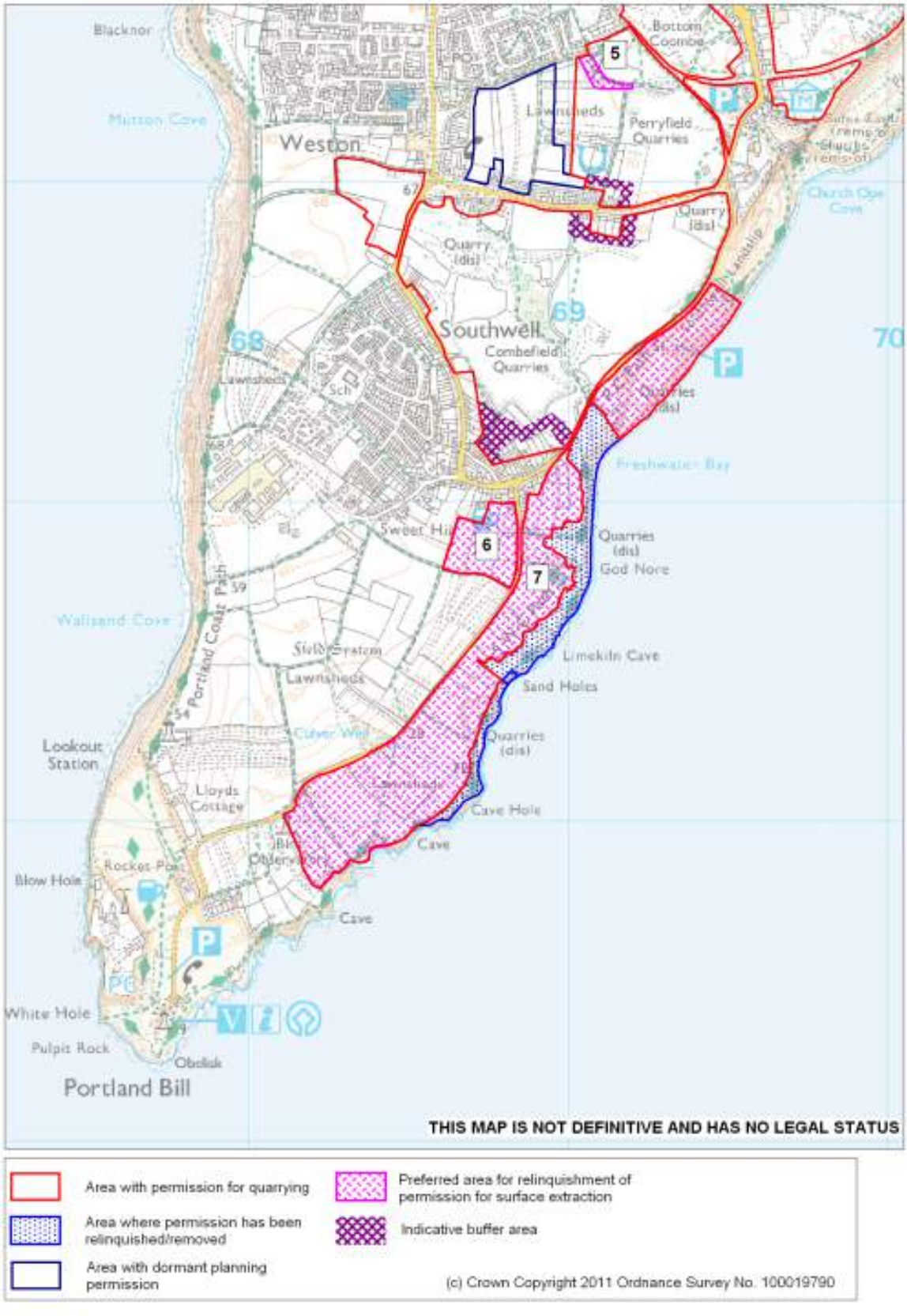


Figure 22 Areas Sensitive to Surface Quarrying - North Portland

Figure 23 Areas Sensitive to Surface Quarrying - South Portland



Description of Areas Sensitive to Surface Quarrying Identified on Figures 22 and 23

Preferred areas for the relinquishment of permission for surface extraction:

1. Tout Quarry – an abandoned quarry notable for its industrial archaeology, recreational and ecological value.
2. Northern part of Inmosthay Quarry – comprising a disused quarry, notable for ecological value and industrial archaeology.
3. Waycroft and Withies Croft – disused and partly restored quarry areas, notable for international and national ecological value.
4. Bowers Quarry - cliffside and historically worked area notable for its national ecological value, its archaeological and recreational value, and the significant visual and landscape impact surface working would result in.
5. North-west area of Perryfields – border area of the active quarry where a buffer to protect residential amenity and listed windmill is considered necessary.
6. Southwell – unworked area of greenspace where visual and landscape impact of surface working would be significant.
7. Coastal Strip – largely unworked area of greenspace and coastal undercliffs. The area is sensitive to surface quarrying for a number of reasons: it partly falls within the Jurassic Coast World Heritage Site and is notable for international and national ecological and geological value; it has an important recreational value, forming part of the South West Coast Path; it includes an area designated as a Scheduled Monument; visual and landscape impact of surface working would be significant; and the impact on residential amenity would be significant in the vicinity of Southwell. Within the SAC, there is the need to protect the entirety of the raised beach (both SSSI and non SSSI) which forms a key feature of the World Heritage Site.

NB: Numbers are for reference purposes only and do not indicate any order of priority.

Preferred area for the relinquishment of permission to extract the cherty series:

A. Inmosthay Quarry – designated SSSI with a plan to restore limestone grassland agreed.

Areas where an appropriate stand-off should be established:

- North and north-east boundary of Broadcroft Quarry
- South-west border of Perryfields Quarry
- The northern and southern boundaries of Coombefield Quarry

10.43 Figure 23 also shows an area to the west of Perryfields Quarry and north of Weston Street with dormant permission. Appropriate stand-offs would also need to be established here. The presence of a dormant permission enables the Mineral Planning Authority to have greater control since a new application would need to be made before any working could take place. The Mineral Planning Authority would expect to be able to require full modern

conditions including the establishment of an appropriate buffer. It is considered that the site could be mined as an alternative to surface quarrying and so it is identified as an area of opportunity for mining in Figure 21.

Review of Old Mineral Permissions on Portland

10.44 Proposed Policy PD4 sets out how the Mineral Planning Authority will seek to minimise the environmental impacts of existing permissions. This will be achieved through the Review of Old Mineral Planning Permissions (ROMP) process and voluntary agreements.

10.45 The ROMP is a requirement of the Environment Act 1995 and is intended to bring old minerals permissions up to modern environmental standards by attaching new planning conditions. The review of the 1951 composite planning permission has a significant role to play in improving the management of quarrying on Portland and is one of the principal means of securing improvements to the existing permission. Policy PD4 provides a strategic basis on which negotiations relating to the ROMP on Portland can be based.

10.46 The ROMP will in particular seek to achieve the conservation and enhancement of designated environmental and historic features on the island and to reduce impacts on amenity. This may include securing agreement not to quarry in particular sensitive areas such as the Areas Sensitive to Surface Quarrying shown on Figures 22 and 23. It will seek the establishment of appropriate stand-offs to protect residential amenity (in particular in the areas shown on Figures 22 and 23) and will be the principal means of achieving this. The use of more environmentally acceptable working methods will also be an important consideration. This may include sawing, the use of pressure bags and chemical cutting in surface quarrying techniques.

Policy PD4 - Minimising Impacts of Existing Permissions on Portland

The Mineral Planning Authority will through the Review of Old Mineral Planning Permissions and through voluntary agreements seek to:

a. secure more environmentally acceptable ways of working;
b. establish appropriate stand-offs between quarry operations and adjacent residential dwellings (and other sensitive locations and developments);
c. ensure that quarries are operated in a way which minimises adverse impacts arising from dust, noise and blasting vibration upon the amenity of people in residential areas or upon other uses sensitive to such impacts;
d. secure the protection of the Isle of Portland Site of Special Scientific Interest, the Isle of Portland Local Geological or Geomorphological Site, Sites of Nature Conservation Interest, BAP Priority Habitats and the habitats of protected species;
e. ensure that the Dorset and East Devon Coast World Heritage Site and its setting is safeguarded;
f. secure the protection of scheduled monuments and their settings, and other important undesignated archaeological remains including evidence of former quarrying;
g. secure the protection of Easton, Weston and the Grove Conservation Areas, Listed Buildings and historic landscapes (heritage assets);
h. protect and/or enhance the landscape and minimise the visual impact of quarrying on Portland.

Restoration of Quarries on Portland

10.47 The restoration of existing quarries on Portland is another important consideration and something that forms part of the Review of Old Mineral Planning Permissions. Additionally, improved restoration schemes for existing sites that fall under the 1951 permission may be sought as part of environmental gains referred to earlier in this chapter. The Minerals Strategy therefore provides guidance to ensure that the restoration schemes agreed upon are the most appropriate. Proposed Policy PD5 sets out the Mineral Planning Authority's aims for restoration of quarries on Portland.

10.48 Some of the quarries and permitted areas coincide with the Isle of Portland Site of Special Scientific Interest (SSSI), as illustrated in Figure 24. Some damage has been caused to the SSSI by quarrying activities and there is potential for temporary loss of areas of interest within the old permission areas. Restoration of the ecological and geological interests is usually achievable with the establishment of the right landform and substrate and there is significant opportunity for enhancement of biodiversity as a result. This is a key priority for restoration of the existing quarries within the SSSI.

Figure 24 Coincidence of Composite Planning Permission and Isle of Portland Site of Special Scientific Interest

10.49 Outside of the Isle of Portland SSSI there are other areas which have naturally revegetated and have ecological interest. There are also areas which are of value for showing geological successions or evidence of traditional methods of quarrying (such as stone beaches and remains of tramways). These are of significant industrial archaeological and heritage importance. These features should be protected and enhanced. Public access is also desirable. This can be achieved on land restored for nature conservation purposes.

10.50 The emerging West Dorset, Weymouth & Portland Local Plan allocates areas of quarried land on the northern part of Portland to form a 'Portland Quarries Nature Park'. The proposed park aims to secure the long term future of the island's most important disused quarries, ensuring public access, long term management and interpretation of these culturally important sites. Restoration in line with the above would enable an appropriate afteruse that contributes to the Portland Quarries Nature Park.

10.51 Returning a quarry to near original ground levels for agricultural grazing is an option for areas outside of the Isle of Portland SSSI and areas of industrial archaeological significance. These areas are generally the more modern quarries. Such areas may also be suitable for restoration to BAP priority habitat. It is important that topsoil removed prior to quarrying is retained for restoration.

10.52 Chapter 15 sets out the Mineral Planning Authority's approach to restoration. Support will be given to proposals which contribute to this strategy. Liaison with the local community on working and restoration proposals will also be supported.

Policy PD5 - Restoration of Sites on Portland

Schemes for the restoration of mineral sites on Portland should achieve the following:

a. reinstatement of areas of the Isle of Portland SSSI to a favourable condition;
b. safeguarding, enhancement and where necessary reinstatement of significant ecological and geological interests;
c. creation or reinstatement of limestone grassland habitats in localities that link up or buffer areas of existing significant ecological interests;
d. preservation of any industrial archaeological features or landscapes that show evidence of traditional methods of quarrying;
e. reinstatement of typical Portland landscape features, such as field patterns and stone walls, where appropriate;
f. reinstatement and where appropriate enhancement of public rights of way;
g. reinstatement of agricultural land and facilitation of agricultural afteruse where appropriate.

Proposals for the afteruse of sites will be expected to contribute to the aims of the Portland Quarries Nature Park where relevant.

11 Other Building Stones

11 Other Building Stones

Introduction

11.1 This chapter considers the overall strategy for the production of other building stones in Dorset (excluding Purbeck and Portland Stone).

11.2 Most of the limestones of the Lower and Middle Jurassic which outcrop in North and West Dorset have been quarried for use as a local building material. Historically, this has included the use of types of Inferior Oolite, Corallian limestones and Forest Marble, as well as Lower Purbeck in the Dorchester Ridgeway area. Additionally, the sandstones of the Cretaceous and Paleogene periods have been used as a building stone in West, North and East Dorset, including, notably, Upper Greensand and heathstone.

11.3 The use of such stones, traditionally supplied from small-scale local quarries, has made a substantial contribution to the richness, diversity and charm of small towns and villages in Dorset, many of which are designated as conservation areas.

11.4 Flint, found as nodules in the Middle and Upper Chalk, has also been extensively used throughout the whole Chalk Downland area, traditionally gathered from ploughed fields. It has also been obtained from the Clay with Flints, found on top of parts of the Chalk Downlands, as the clay was prepared for brickmaking. Flint has also been extracted from Woodsford Quarry in the Frome Valley, taken from the Terrace Gravels. Flint can be used as either a building stone material or as an aggregate.

11.5 In order to maintain local built character, quarrying of local stone is important.

Spatial Characteristics

11.6 The majority of the outcrops of these building stones coincide with the Dorset Area of Outstanding Natural Beauty (AONB). Figure 25 shows that almost the entire Upper Greensand outcrop and a large proportion of the Inferior Oolite and Cornbrash and Forest Marble formations occur in the western part of the AONB. This area is characterised in the far west by a diverse topography with broad rolling hills and a patchwork of farmland and hedges, with steep greensand ridges and incised valleys (known as West Dorset Farmland), whilst chalk valleys and uplands characterise the landscape moving eastwards. The Cornbrash and Forest Marble outcrop north of the coast lies within the South Dorset Lowlands. Building stones also outcrop along the North Dorset limestone ridges.

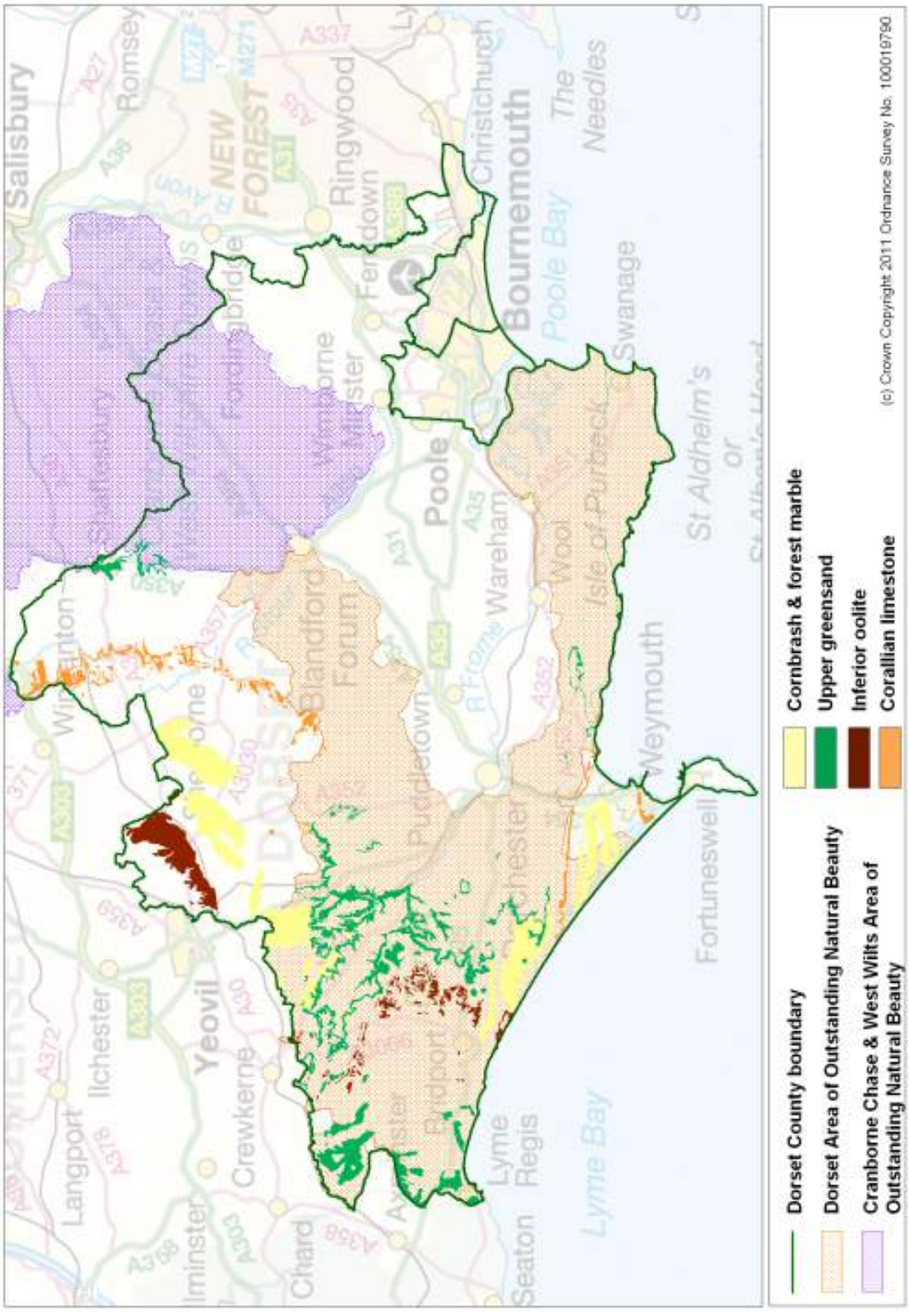


Figure 25 Other building stones

11.7 There are currently seven sites with permission for the extraction of different types of building stone. All are located in rural areas in West or North Dorset and currently produce stone on a traditional basis, working in campaigns according to demand.

Provision of Building Stone

11.8 The Minerals Strategy supports the extraction of further reserves of building stone during the plan period. There is an ongoing need for small quantities of building stones in Dorset in order to maintain the character of the county's towns and villages, both in terms of restoration of historic buildings and new build in the local vernacular style. The English Heritage Strategic Stone Study recognises the importance of the supply of local stones in conservation work and this is particularly important having regard to designated conservation areas. National planning policy recognises that development should respond to local character and history, and reflect the identity of local surroundings and materials[22].

11.9 Some of the existing local building stone quarries will run out of reserves during the plan period. The Mineral Planning Authority encourages the use of stone where it is to be used to maintain the fabric or character of individual buildings or settlements, whether this is from a new or reopened quarry, or an extension to an existing quarry.

11.10 Due to the nature and geographical locations of potential building stone quarries, small-scale operations to supply a specific local need are considered suitable, provided that the impact on landscape and the road network is carefully considered, since the resources will usually lie within rural areas. Proposals for building stone quarries (other than Purbeck and Portland stone) should comply with Policy BS1, as well as other relevant policies in this plan (including Development Management policies).

22 National Planning Policy Framework, Paragraph 58

Policy BS1 - Building Stone Quarries

Proposals for small-scale building stone quarries, other than Portland and Purbeck Stone, will be permitted, where they meet all of the following criteria:

a. the stone is of a type historically used for building in the local area and is to be used to maintain the fabric or character of individual buildings or settlements in the local area, or a significant historic building elsewhere;
b. the proposal would be of a type, scale and output appropriate to the market identified in (a) above; and
c. the proposal would not individually or cumulatively with any other sites result in a level of mineral activity, or traffic generation, which would have an unacceptable effect on landscape, the environment or local amenity.

11.11 Given the extent of historic quarries in the county and the difficulty in predicting future demand for a certain type of stone from the re-opening of a quarry, it is not possible to direct future workings to particular areas. However, where possible specific sites will be identified within the Mineral Sites Plan. As a result, the safeguarding of building stone is of key importance to the strategy. Chapter 14 sets out the minerals which will be safeguarded in order to avoid sterilisation of important building stone resources.

11.12 Since the building stones described in this chapter are also an important geological resource, Dorset Important Geological and Geomorphological Sites group (DIGS) and/or a county geologist will be notified when new excavations are proposed.

12 Hydrocarbons

12 Hydrocarbons

Key Issue

Maintaining a continued supply of onshore hydrocarbons from within licensed areas, whilst safeguarding and enhancing landscape, areas of ecological importance and amenity interests.

Introduction

12.1 This chapter considers the overall strategy for development associated with the extraction of onshore hydrocarbons (oil and gas), as well as the storage of gas underground, in Dorset.

12.2 Dorset has a long association with oil and gas exploration and production, with initial searches in the 1930s and the first commercial discovery at Kimmeridge in 1959. The discovery of a significant oilfield at Wytch Farm in 1973 has put Dorset at the forefront of onshore oilfield development and intensified the search for oil throughout southern England.

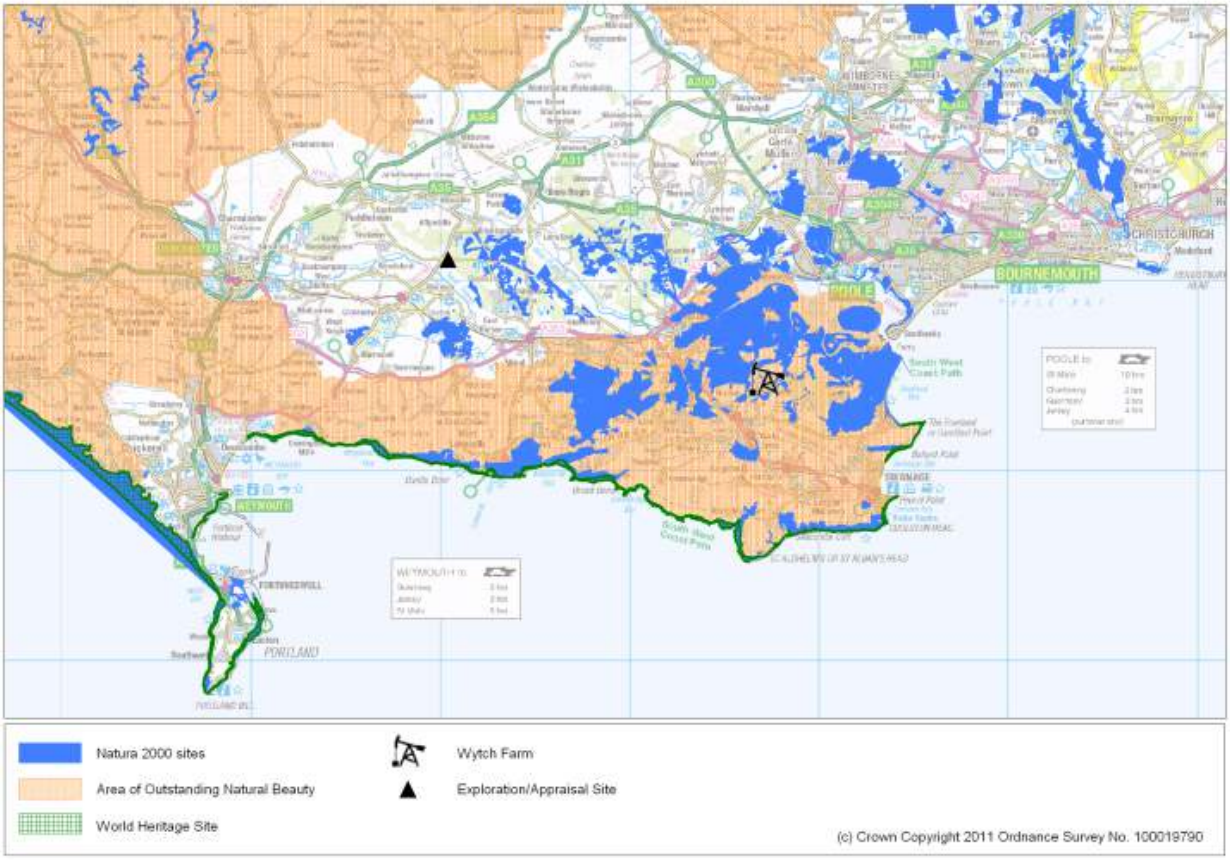
12.3 The discovery of further commercial reserves, including those under Poole Bay, led to the Wytch Farm development becoming the most productive onshore field in Europe, reaching output levels of 110,000 barrels per day (bpd). This has since fallen to a current level of around 10 - 20,000 bpd.

Spatial characteristics and current production

12.4 Conventional oil and gas operations are the subject of a licensing system by the Department for Energy and Climate Change (DECC). Petroleum Exploration and Development Licences are issued by DECC through licensing rounds, which generally take place annually. Licenses grant exclusivity to operators in the licence area. They do not however give consent for drilling or any other operations.

12.5 The current licenced areas in the county mainly cover south and south east Dorset, including Purbeck. Many of the areas are sensitive environmentally, with habitats designated at the European level for their value scattered amongst them, notably the Dorset Heaths SAC and Dorset Heathlands SPA. The Dorset AONB extends through three of the licenced areas. In addition, part of the Dorset & East Devon Coast World Heritage Site coincides with the licenced areas. The designations are illustrated on Figure 26. Such designations may present constraints on production and processing sites in the future and would need full consideration in line with the policies of the Minerals Strategy and relevant legislation. Applications for hydrocarbons development may only come forward within licensed areas at any given time. Policies for hydrocarbons development in Dorset will apply within the licensed areas.

Figure 26 Natura 2000 Sites, AONBs and World Heritage Site



12.6 Extraction of hydrocarbons in Dorset has historically been undertaken in such areas, with Wytch Farm being located in the Dorset AONB and the well sites being dispersed amongst European and nationally protected habitats. The designation of the European wildlife sites largely postdates the oilfield development. Land management has been important in keeping the development unobtrusive within the forest and heathland landscape.

12.7 Wytch Farm has a total of 95 wells, operating from 10 sites on the Isle of Purbeck. The Wytch Farm oilfield, located around the southern shores of Poole Harbour, hosts the majority of these sites, which lie within the Frome, Bridport and Sherwood oil bearing reservoirs. The smaller Wareham oilfield (west of Wareham) and Kimmeridge oilfield (at Kimmeridge Bay) also form part of the Wytch Farm operations. For the purposes of this document, 'Wytch Farm' is taken to include all three oilfields.

12.8 Oil is processed at the Wytch Farm gathering station. Crude oil is exported by pipeline to a storage and loading facility at Hamble, Southampton, whilst gas is exported by pipeline directly into a gas pipeline transmission system at Sopley, north of Christchurch, for feeding into the main domestic gas network. Additionally, liquid propane is distributed direct to customers by road tanker. Extended reach directional wells have been drilled offshore into the Sherwood reservoir underlying Poole Bay, with the well of the greatest distance extending 11km from the onshore well site. This brings considerable environmental benefits by enabling the furthest parts of the reservoir to be drilled from an onshore site.

12.9 Elsewhere in Dorset, there has more recently been oil and gas exploration and appraisal activity east of Dorchester, whilst an underground gas storage facility has been permitted on Portland.

Provision of Hydrocarbons

12.10 Oil and gas are primary sources of energy in the UK. Natural gas in particular is used to generate electricity and oil is used to derive petroleum for use as fuels. Oil and gas are also used for domestic heating and are important process fuels in industry. In addition millions of products are made from the chemical processing of oil and gas. UK oil and gas currently supplies around 60% of the country's energy needs.[23]

12.11 Whilst an increase in low carbon sources of energy is vital to meet targets to reduce carbon emissions and to mitigate against climate change, there continues to be a need for oil and gas, with the Government's energy policy being to ensure secure, diverse and sustainable supplies.

12.12 Onshore oil and gas production, whilst being relatively small in comparison to offshore production, makes an important contribution to supply with the additional advantage of proximity to demand. The Government's policy is that energy resources such as oil and gas, like other minerals, are essential to support sustainable economic growth and local planning authorities should give great weight to the benefits of mineral extraction, including the economy. It is therefore important that there is a sufficient supply to meet the country's needs.

23 http://www.decc.gov.uk/en/content/cms/meeting_energy/oil_gas/oil_gas.aspx

12.13 The nature of operations for conventional oil and gas development is very different from other mineral working. They are less intrusive in terms of their generally smaller land-take and more flexible in locational requirements. Impacts can be minimised by locating development so as to avoid the most sensitive areas and through site design and management.

12.14 There are three phases of oil and gas development - exploration, appraisal and production - each of which requires planning permission. Potential impacts and planning issues vary according to the particular phase of activity.

12.15 The Minerals Strategy supports further exploration, appraisal and production of onshore oil and gas, subject to the considerations set out in this chapter. Technical feasibility and economic viability needs to be taken into account alongside consideration of potential impacts. Policy guidance is provided for each phase of development in order that operations are effectively managed and potential impacts are minimised. It is important that specific conditions are attached to any permission to ensure that amenity and environmental interests are protected.

Exploration and Appraisal

12.16 The exploration and appraisal phases are carried out to establish the presence, extent and characteristics of hydrocarbons and the economic viability of their extraction.

12.17 Exploration encompasses a range of activities including geological mapping, geophysical/seismic investigations and the drilling and investigation of wells and boreholes to assess prospective sites in more detail. Surveys establish if the potential geological structures to hold oil and gas are present. Seismic investigations are temporary in nature and generally have very limited environmental impact.

12.18 The only way firmly to establish if oil or gas is present is to drill a borehole, which requires planning permission. Although such sites are temporary and usually small-scale in nature, drilling during the exploration phase is an intensive activity undertaken 24 hours a day for both health and safety and operational reasons. During this time there could be visual, lighting and noise disturbance and impacts on local roads. Proposals for exploratory wells will be considered on their individual merits in accordance with the policies in this plan and should address all these issues.

12.19 If hydrocarbons are found, the appraisal phase may follow. The operator will need to carry out longer-term testing of the reservoir to determine its characteristics, which could involve installing a beam pump and removing oil by tanker each day. The number of tanker movements would need to be considered as part of determining the acceptability of a proposal. Flaring off gas may also be necessary, as well as additional wells to confirm the extent of the accumulation. Proposals for appraisal should look afresh at the issues considered at the exploration phase and consideration should be given to the long term suitability of the site since such wells may be developed for production purposes.

12.20 Exploration boreholes, appraisal wells and any ancillary facilities should be located in the least sensitive location, in environmental and residential amenity terms, that are commensurate with geological factors and operational constraints. The Mineral Planning Authority would need to be provided with information on the extent of the geographical area of search and how the site has been selected within this area. The area of search is defined as the area within which the exploration or appraisal will take place in relation to the wider reservoir. It should be demonstrated that location selection has had regard to nature conservation interests, residential amenity, historic environment and best and most versatile agricultural land. It should also be demonstrated that facilities are of minimal landscape and visual impact and offer the best opportunity for the appropriate and adequate mitigation and/or compensation of any adverse effects.

12.21 Where a target reservoir is directly beneath an environmentally sensitive area, opportunities for directional drilling from outside of the sensitive area should be explored. The Mineral Planning Authority will also need to be assured that adequate mitigation measures against pollution from spillage and the disposal of drilling residue are in place.

12.22 Proposals for drilling will only be acceptable close to dwellings if noise levels can be reduced to an acceptable level. Careful consideration will be given to controlling vehicular activity and routing, controlling the disposal of mud and other drilling residue, and controlling noise and light emissions from drilling rigs particularly in relation to night time operations.

12.23 Because of the three stages of oil and gas development, it is possible to require restoration of well-sites to be undertaken at the end of exploration or appraisal rather than allowing the operator to keep the site 'on hold' before moving onto the next stage for environmental and amenity reasons. Proposals should therefore include a scheme for restoration to take place as early as practicable if oil and gas is not found. If oil and gas is found in economically viable quantities, it is expected that development to the next stage would take place within a reasonable time frame as agreed with the Mineral Planning Authority.

12.24 Where activities require planning permission, proposals should comply with Policy HY1, as well as other relevant policies in this plan (such as the Development Management Policies).

Policy HY1 - Proposals for Exploration and Appraisal

Proposals for exploration and appraisal of onshore oil and gas will be permitted where they meet all of the following criteria:

a. well sites and associated facilities are sited in the least sensitive location from which the target reservoir can be accessed;
b. it has been demonstrated that possible effects that might arise from the development would not adversely affect the integrity of any SAC, SPA or Ramsar site either alone or in combination with other plans or projects;
c. any adverse impacts can be avoided or mitigated to the satisfaction of the Mineral Planning Authority, with safeguards to protect environmental and amenity interests put in place as necessary;
d. it can be demonstrated that there would be no adverse impact on the underlying integrity of the geological structure;
e. an indication of the extent of the reservoir and the extent of the area of search within the reservoir is provided to the Mineral Planning Authority;
f. exploration and appraisal operations are for an agreed, temporary length of time; and
g. well sites and associated facilities are restored at the earliest practicable opportunity if oil and gas is not found in economically viable volumes, or they are developed within a time frame agreed.

Production

12.25 If economic concentrations of hydrocarbons are found, the operator may seek to develop the field commercially. This is a complex operation including a number of different elements and options.

12.26 Small fields may be exploited using the existing exploration and appraisal wells. Oil can be stored on site, with tankers transporting the oil to refineries.

12.27 Larger fields may require additional wellhead sites linked by pipelines. Directional drilling, whereby a number of wells are drilled from a single location, may be used to minimise the number of sites required to exploit the field. Directional drilling is considered preferable to the creation of additional well sites. Above ground facilities, including potentially a gathering station to provide a central facility to prepare the hydrocarbons for export, and transport links, pipelines and offices may be required. Impacts similar to industrial development may be experienced, with pollution prevention being a potential long-term concern.

12.28 Since various elements are involved in a production site, it is usually beneficial for the development to be considered on a comprehensive basis, rather than a series of separate proposals. A development framework setting out as far as practicable the expected extent and number of facilities required for the development of the oilfield, as well as the anticipated timings for installation, will therefore be required.

12.29 As there is likely to be some flexibility as to the location of extraction and processing facilities, they should be located to minimise adverse effects on landscape, nature conservation interests, residential amenity, historic environment and best and most versatile agricultural land.

12.30 Additionally, it is expected that any adverse impacts will be mitigated to an acceptable level. The Mineral Planning Authority will need to be assured that adequate measures against pollution from spillage are in place.

12.31 The long term management of impacts on the environment will also be required, which should be proportionate to the development. Consideration will need to be given to the use of tree screens and appropriately managed areas around well sites or facilities in order to reduce visual impact. Additionally, where areas are sensitive ecologically, opportunities for habitat management should be explored.

12.32 The life of an oil field or production site is governed by a number of factors, including technology and recovery techniques, economics and regulatory changes. The life and the facilities required could therefore be subject to extension and this may necessitate or provide opportunities for environmental enhancement. It may also require the integrity of infrastructure to be demonstrated to the Mineral Planning Authority where it is proposed that this will continue to be used.

12.33 Where additional fields are discovered during the life of a site, these should wherever possible be exploited using existing well sites and facilities in order to minimise impacts.

12.34 Proposals for both the development of new oilfields and production facilities, and amendments or extensions to existing sites, should comply with Policy HY2, as well as other relevant policies in this plan (such as the Development Management Policies).

12.35 Landfall pipelines associated with offshore developments will be considered against the requirements of Policy HY2 and are considered to fall under 'ancillary development'.

Policy HY2 - Proposals for Production Facilities and Ancillary Development

Proposals for hydrocarbon production well sites and facilities, and other related ancillary development, will be permitted where they meet all of the following criteria:

a. a full appraisal programme for the oil and gas field has been completed to the satisfaction of the Mineral Planning Authority;
b. a framework for the full development of the field is submitted for approval by the Mineral Planning Authority;
c. facilities required for hydrocarbon production sit within the agreed development framework, are justified in terms of their number and extent, and are progressively installed wherever possible;
d. extraction, processing, dispatch and transport facilities are sited, designed and operated to minimise environmental and amenity impacts and provide proportionate environmental enhancements;
e. any adverse impacts, both individual and cumulative, can be avoided or mitigated to the satisfaction of the Mineral Planning Authority;
f. it has been demonstrated that possible effects that might arise from the development would not adversely affect the integrity of any SAC, SPA or Ramsar site either alone or in combination with other plans or projects;
g. it can be demonstrated that there would be no adverse impact on the underlying integrity of the geological structure;
h. existing facilities are used for the development of any additional fields discovered unless the applicant satisfies the Mineral Planning Authority that this would not be feasible and any adverse impacts can be mitigated;
i. where a proposal uses existing production facilities, the integrity of the existing infrastructure can be demonstrated, having regard to local environmental factors.

12.36 In relation to internationally designated nature conservation areas, it should be demonstrated that the proposal would not cause any adverse effect either directly or indirectly, in line with Policy HY2 (f) and Policy DM5. There are a number of mechanisms by which proposals for oil and gas production could impact on such a site, namely through proximity and effects on species, hydrology and the management of such sites. These issues are explained in Chapter 16 and should be fully considered as part of any proposal.

Wytch Farm

12.37 Wytch Farm is now a mature reservoir, with many of the original planning permissions requiring restoration by 2016. In 2012, the current owners of the site applied for permission to extend the life of the oilfield to 2037. Existing reservoirs have the potential to produce economically viable quantities of oil for the plan period. There will need to be a balance made between the need for continued production and the ability of the environment to accommodate this. Policy HY2 provides the framework for considering proposals related to Wytch Farm.

12.38 Wytch Farm faces a number of unique issues due to its ecological context, whereby some well sites are sited within and amongst European habitats, as well as SSSIs. Consideration therefore needs to be given to the implications of continued production on this sensitive area. A key issue is the need to manage the integrity of European sites. There are a number of ways through which ecological impacts could occur, including through the proximity of well sites to heathland; effects on species and hydrology; and the impacts of continuing nitrogen deposition. The potential implications resulting from a delay in restoration of well sites which coincide with European habitats, should the life of Wytch Farm be extended, is also an important issue.

12.39 An inherent conflict can arise between land management areas established to provide tree screening for well sites, and the ecology of the European heathlands, where tree screens prevent, or at least delay for the lifetime of the development, the favourable management of the heaths for wildlife. Owing to the dispersed nature of the infrastructure at Wytch Farm, and its location within the Dorset AONB, a wider landscape management approach is likely to be desirable to increase the capacity of the landscape to absorb the visible infrastructure, whilst meeting the strict protection afforded to the heaths.

Transportation of Hydrocarbons

12.40 Since there is the potential for further production in Dorset and since oil and gas fields are typically located in relatively remote areas, policy HY3 directs movement to pipelines wherever practicable. Where possible, export terminals should be sited where they can feed into a long distance pipeline.

12.41 Pipelines less than 10 miles require planning permission from the Mineral Planning Authority, whilst any pipeline 10 miles or over would require authorisation from the Secretary of State for Trade and Industry under the Pipelines Act 1962.To ensure that European wildlife sites are safeguarded from any effects of development, proposals including pipelines should comply with Policy DM5 (Chapter 16).

Policy HY3 - Transportation of Hydrocarbons

Developments for hydrocarbons production will be required to use pipelines. Where it can be demonstrated that this is not feasible, economically and/or environmentally, rail or road transport will be considered.

Where road transportation is the only feasible option, it should be demonstrated that this would not give rise to unacceptable impacts on the environment or highway safety.

Decommissioning and Restoration

12.42 At the end of their lives, oil and gas production sites are decommissioned. This involves dismantling and removing facilities, prior to full restoration of the land. Depending on the size and number of components of a site, this can be a complex operation resulting in its own impacts. There may be a substantial amount of material that needs to be taken

away from the site as a whole, and additional facilities may be required to enable decommissioning to take place. One effect of this is the traffic that will be generated. Additionally, pollution control during decommissioning will be important.

12.43 The Mineral Planning Authority will therefore require a strategy detailing the decommissioning and restoration phases to be submitted for approval, prior to any activities beginning. This should detail the proposed schedule and methods of decommissioning activities, along with timescales, as well as anticipated impacts on environment and amenity, including through transportation and the mitigation proposed. This should be in line with the principles set out in Chapters 15 and 16 on restoration and development management. The content of such a strategy should be discussed with the Mineral Planning Authority in advance of its preparation and should be relative to the scale of operation.

12.44 In line with Policy RS1 (see Chapter 15), restoration should enable the long term maintenance and enhancement of the environment. The restoration scheme for a production site will need to be comprehensive in taking into account the oilfield, well-sites and ancillary facilities as a whole. The removal and restoration of individual well sites and facilities should take place when they are no longer needed in the production process, unless it can be demonstrated that there is a need to retain them that outweighs any effect on the environment or amenity.

12.45 The area in which Wytch Farm is located consists of a mosaic of heathland, farmland, woodland and scrub and restoration will need to take account of the landscape character of the wider area. The area is interspersed with internationally and nationally protected heathlands, which are BAP priority habitats and the subject of ongoing habitat management. Restoration should therefore strive to achieve favourable condition within such designated areas and opportunities for habitat improvement and creation within the wider area should be maximised.

Policy HY4 -Decommissioning and Restoration of Production Facilities and Ancillary Development

The Mineral Planning Authority will require:

a. restoration of production well sites and ancillary facilities at the earliest practicable opportunity when they are no longer required as part of the production operation, in accordance with the agreed framework for development of the oilfield; and
b. the submission of a strategy detailing decommissioning and restoration of the site to be agreed prior to the commencement of decommissioning. This should include proposed mitigation where necessary to address identified impacts of decommissioning.

Unconventional Gas Resources

12.46 Unconventional gas is natural gas which is trapped deep underground by impermeable rocks, such as shale rock or coal beds. Unconventional gas resources include shale gas, the extraction of which uses a new technology known as hydraulic fracturing. Extraction of shale gas does not currently take place in Dorset. Exploration in the UK is at a very early stage and it is unknown whether there is potential for this activity in Dorset or if the geology is suitable. The unique quality of Dorset's coastal environment, the presence of important leisure and tourism interests, and the need to protect local amenity will demand careful attention should there be interest in considering this technology. Shale gas extraction is subject to the same licensing as oil and gas development and would require planning permission for exploration, appraisal or production activities. Any proposal for shale gas development would need to comply with Policy HY1 or Policy HY2, as well as other relevant policies in this plan (including the Development Management policies).

12.47 Impacts from shale gas extraction may include noise and vibration. Proposals would need to demonstrate that the integrity of the geological structure will remain intact and that there would be no adverse impact on ground stability during or after extraction. Of key importance will be the need to avoid any harm to the outstanding universal value or integrity of the Dorset and East Devon Coast World Heritage Site, including the stability of the cliffs, and its setting. As such, proposals must comply with Policy DM2. Particular attention should also be given to potential effects on water resources to ensure that there would be no adverse impact in line with Policy DM3, as well as the disposal of water produced during well stimulation and gas production.

Underground Gas & Carbon Storage

12.48 Underground natural gas storage facilities are required in the UK to assist in securing our energy supply. Additionally, technological advances now offer the potential for carbon dioxide emissions to be captured, thereby preventing their release into the atmosphere. As with natural gas, carbon dioxide requires suitable underground storage facilities. The National Planning Policy Framework states that mineral planning authorities should encourage underground gas and carbon storage if local geological circumstances indicate its feasibility.

12.49 Storage facilities can be provided in salt caverns (by either conventional underground mining or by solution mining) or depleted oil and gas fields (showing a proven capability to retain hydrocarbons for millions of years).

12.50 In Dorset, it is known that there is a thick layer of Triassic rock salt with the necessary properties for underground gas storage, and suitable for the creation of salt caverns through solution mining. A known suitable area lies in the Weymouth and Portland area.

12.51 Planning permission was granted in July 2008 for the Portland Gas Storage facility and associated development. Portland Gas Storage has a permitted storage capacity of 1000 million cubic metres, comprised of 14 salt caverns located underground (at a depth in excess of 2000m) at the north-east corner of the island. This is equivalent to 1% of the UK's total annual demand. This will be linked by pipelines to the nearest point on the National Transmission System at Mappowder in North Dorset. Gas is to be taken and stored in the Portland facility and then returned, as and when required by the storage users.

12.52 The facility is expected to be constructed and put into operation during the plan period. There is also potential for increasing the capacity of this facility.

12.53 Proposals for underground gas storage will be considered against Policy HY5, as well as other relevant policies in this plan (such as the Development Management policies). Sites and associated development should be located to minimise any impacts. Consideration should also be given to potential impacts on the environment and amenity during construction phases. To ensure that European wildlife sites are safeguarded from any effects of development, proposals should comply with Policy DM5 (Chapter 16).

Policy HY5 - Underground Gas Storage & Carbon Storage

Proposals for underground gas storage in suitable geological structures will be permitted where the Mineral Planning Authority is satisfied that all of the following have been achieved:

a. the proposed site has been selected so that adverse impacts on the environment and residential amenity are not significant and in any case are kept to the minimum practicable;
b. associated surface development is the minimum required and is appropriately located;
c. the capacity and integrity of the geological structure has been proven suitable; and
d. where possible, positive environmental enhancements (associated with the development) are demonstrated.

13 Other Minerals

13 Other Minerals

Common Clay

13.1 Common clay includes clays extracted for brick and tile manufacture or for other purposes such as lining landfills and puddling.

13.2 Wide Tertiary clay vales (comprising Reading Formation and London Clay) and Cretaceous (Wealden) clays are found in Dorset and are regarded as a relatively abundant resource, concentrated primarily in the south east of the county.

13.3 There is currently only one operational clay pit in Dorset. Wealden clays are extracted at Godlingston, north of Swanage (see Figure 27). These are used in the on site production of bricks characteristic of the local area and for specialised markets, including hand made bricks in a variety of sizes and colours to suit customer requirements. Approximately 3 million bricks are produced per annum. This is small scale when compared with the total UK production of around 2 billion bricks per annum. The predominant markets for the brick produced are the south east of England but bricks are also supplied locally and into other parts of the UK and Ireland.

13.4 Current reserves of brick clay at Godlingston are in excess of 25 years based on current geological understanding of the site and therefore sufficient for the plan period. Reserves of Wealden Clay need to be safeguarded from other non minerals development to allow for future extensions. This is covered in Chapter 14.

13.5 Until recently, Tertiary clays, were also worked at Knoll Manor, near Corfe Mullen, and used in a tile making plant at Hamworthy. Although not currently in use, a valid permission for extraction still exists.

13.6 It is unlikely that demand for Dorset's common clays will change significantly from the current low-key extraction rates. As the reserves at Godlingston are sufficient to ensure an adequate supply of clay throughout the plan period, it is not considered necessary to identify specific sites for the extraction of common clay within the Mineral Sites Plan.

13.7 If proposals do come forward for additional clay pits, the Development Management policies set out in Chapter 16 provide the framework to assess proposals, particularly DM1 which sets out key criteria for sustainable minerals development.

Chalk

13.8 Chalk is widely found in the plan area, extending in a broad swathe from Ashmore and Cranborne in the north east, across the rural county in a south westerly direction towards Eggerdon Hill and in an easterly narrowing band towards Swanage. Its outcrop largely coincides with the AONB areas in Dorset.

13.9 The chalk is of Upper Cretaceous age and can be used in the manufacture of cement, dressings for agriculture and as a filler, extender or whitening agent in the manufacture of paint, paper, polymers and pharmaceuticals. Due to its quality, its end uses have been generally limited to agricultural dressings, lime mortars and as a low grade fill material.

13.10 There is currently one site with permission for the extraction of chalk at Whitesheet Hill, west of Maiden Newton (see Figure 27). This site, permitted under a Review of Mineral Planning Permissions (ROMP) in 2009, contains reserves of two products, screened chalk for spreading on fields as agricultural improver and lump chalk for use on cow tracks and cattle shed floors. Based on current figures it is thought that this site has sufficient reserves for around 23 years extraction.

13.11 There are also a number of very small excavations authorised under agricultural permitted development and it is thought that this will continue where small quantities of material are required.

13.12 In view of the low demand for this material and current reserves it is not considered necessary to identify further sites for chalk extraction in the Mineral Sites Plan.

13.13 If proposals do come forward for additional workings they will be required to demonstrate a need for the chalk. The Development Management policies set out in Chapter 16 provide the framework to assess proposals, particularly DM1 which sets out key criteria for sustainable minerals development.

Silica (Industrial) Sand

13.14 Silica sands contain a high proportion of silica in the form of quartz and are an essential raw material for many industrial purposes. The distinction between sand used for industrial purposes and used for construction aggregate is based principally on application and market specifications, with different uses demanding different combinations of properties. Silica sand with potential for industrial use is geologically and geographically sparsely distributed within the UK, with Dorset being the only producer in the south west.

13.15 In Dorset, sand for industrial/non-aggregate use is primarily sourced from the Poole Formation. These sands are an important source of construction aggregate but they are also highly siliceous and relatively clean, making it possible to work them on a modest scale for industrial or semi-industrial applications such as resin-bonded foundry sand, manufacture of fibre-glass and for facing bricks and sports-turf sand. However, the Poole Formation is not a nationally important resource of silica sand, probably due a lack of important local markets and increased competition from other silica sand resources in more distant markets[24].

13.16 The Mineral Planning Authority is required by national policy to make a contribution to national requirements and will aim to maintain a landbank of silica sand permissions, as far as possible and realistic, provided that the industry comes forward with suitable applications. The system used to ensure a landbank and continuing flow of aggregate minerals cannot readily be applied to silica sand for industrial uses given the specialised requirements of the silica sand industry.

24 Mineral Resource Information for Development Plans: Phase One Dorset, Bournemouth and Poole - British Geological Survey Technical Report WF/01/01 2001

13.17 The National Planning Policy Framework (NPPF) (para 146) requires a landbank of at least 10 years for silica sand sites. In Dorset, silica sand sites produce sand for both aggregate (i.e. construction related) and non-aggregate (i.e. industrial sand) purposes. It is therefore not possible to identify a 10 year silica sand landbank for any one site based on the entire output of that site. To address this issue the Mineral Planning Authority will, at sites producing silica sand for industrial purposes, annually monitor the levels of output of both aggregate and non-aggregate sand and for the latter use the average of the last three years [25] to derive a 10 year landbank for industrial silica sand for the relevant site. This will indicate whether there is an adequate permitted reserve for future production of industrial silica sand.

13.18 The relative size of the industrial sand landbank will be indicative of the need for new permissions and the Mineral Planning Authority will aim to ensure that a landbank of at least 10 years for industrial silica sand is maintained for relevant individual sites. The need for the mineral must be balanced against environmental and amenity constraints and there may be overriding environmental and/or amenity reasons why the stock of permitted reserves at some sites may not be replenished as they are used up.

13.19 It is expected that production of industrial sand will primarily be from existing quarries, but could require new sites or extensions to existing sites. Silica sand for industrial or non-aggregate uses has in the past been produced at various quarries including Masters Pit, Henbury, Warmwell and Binnegar quarries. Production from Binnegar has ceased, but continues at Masters Pit, Warmwell and Henbury (see Figure 27). All sand production is expected to cease at Warmwell within the next 2-3 years. At Henbury it is estimated that a 10 year landbank exists for some grades of sand, but reserves are insufficient to maintain a 10 year landbank to 2028 at present sales. Continued production of industrial sand will be investigated through the site allocations process. Industrial sand deposits are safeguarded through the safeguarding of the wider Poole Formation resource. As industrial sand is primarily sourced from the Poole Formation, new sites or extensions to existing sites will be located within the Bedrock Sand Resource Block shown in Chapter 7.

25 The National Planning Policy Framework Technical Guidance (March 2012, paragraph 53) stated that landbank requirements for silica sand should be calculated by multiplying the average of the last three years production for which figures are available by the appropriate number of years, having regard to the quality of sand and the use to which the material is put. Note that the current Planning Practice Guidance suggests using the average of the past 10 years to derive the landbank figure.

Policy IS1 - Industrial Sand

The Mineral Planning Authority will ensure that an appropriate contribution is made to the national requirement for silica sand for industrial uses. This will be achieved within the Bedrock Sand Resource Block through existing production sites, extensions to such sites and/or at new sites, provided that:

a. a need for the mineral (industrial silica sand) which cannot be met through the existing landbank at each relevant site can be demonstrated; and
b. any adverse impacts associated with extraction, processing or transportation can be avoided or satisfactorily mitigated.

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 the 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.

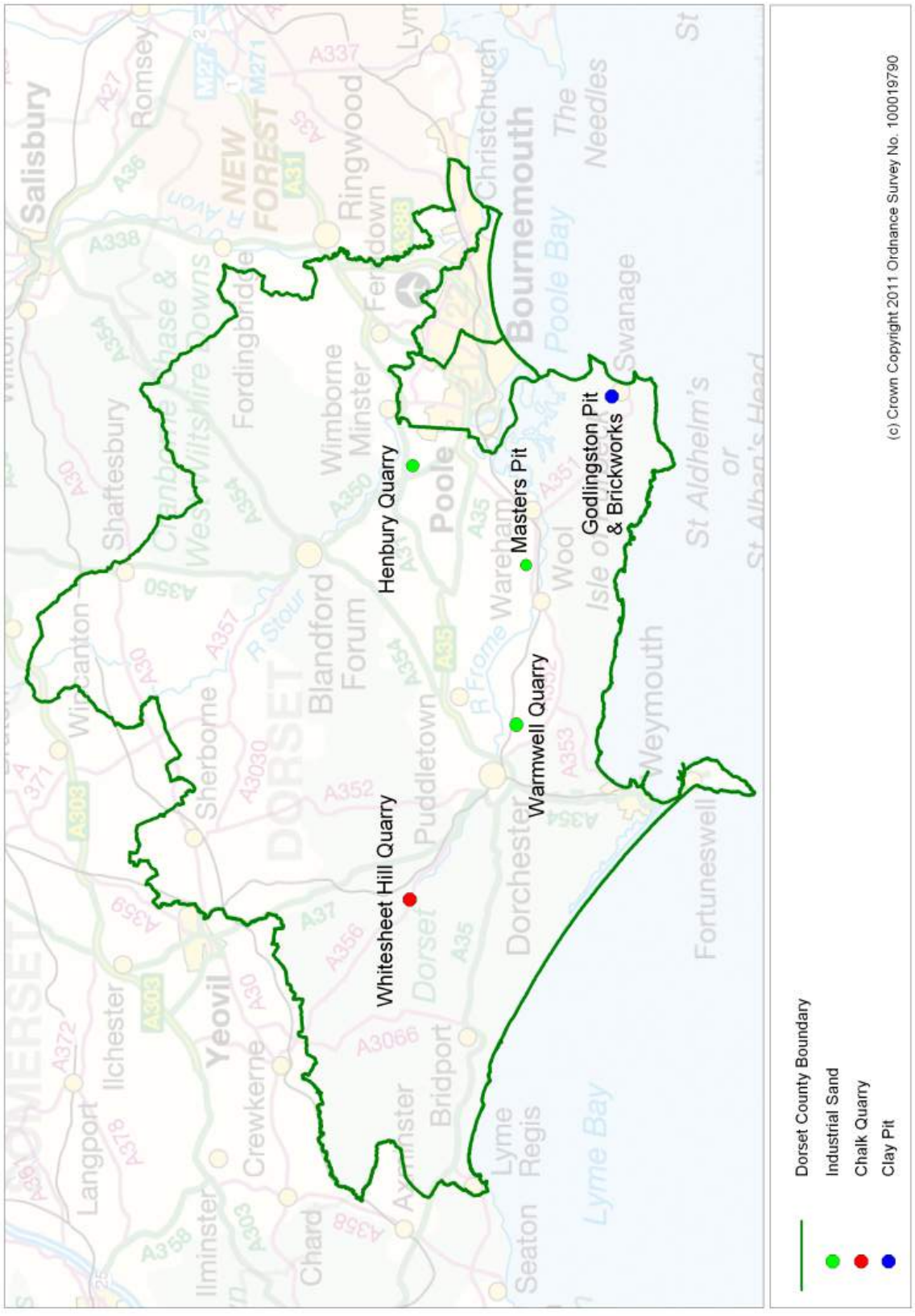


Figure 27 Locations of Sites for Chalk, Clay and Industrial Sand

14 Safeguarding

14 Safeguarding

Key Issue - Mineral Safeguarding

To determine which minerals and minerals extraction/processing/transportation sites should be safeguarded and how this should be achieved.

Introduction

14.1 Minerals can only be worked where they are found. In the plan area, potential mineral working areas may be limited by landscape and environmental designations or existing settlements; there may also be competition from non-minerals development. Government policy requires proven mineral resources to be safeguarded from sterilisation (such as being covered by buildings) and that there should, where practicable, be prior extraction of the mineral if it proves necessary for built development to take place.

14.2 Identification of mineral safeguarding areas does not provide a presumption in favour of working the mineral, and is not a guarantee that there is mineral present of viable quantity or quality.

Minerals to be safeguarded

14.3 The key mineral resources in the plan area are aggregates (river terrace sand and gravel, Poole Formation sand and crushed rock), limestone (including Portland Stone, Purbeck Stone and other building stone), hydrocarbons and ball clay. The Poole Formation sand includes sand produced for non-construction purposes. Given its importance, the aggregate resource that can be extracted economically will be safeguarded, along with the limestone and ball clay resource.

14.4 Hydrocarbons are economically important but since they are found deep underground they are not specifically safeguarded. The sites where they are extracted and processed are safeguarded under Policy SG3.

14.5 Other minerals include brick clay and chalk, but since demand for these is significantly less and it is unlikely that this situation will change in the long term, these resources are not considered to be of economic importance and are not safeguarded. There is one exception, namely the Wealden Clay resource around the existing Swanage Brickworks. A limited area west of the site is safeguarded to ensure the availability of future supplies.

Safeguarding the minerals resource

14.6 Two separate designations are applied for the purposes of mineral safeguarding, the Mineral Safeguarding Area (MSA) and the Minerals Consultation Area (MCA). The MSA identifies the mineral resource identified by the Mineral Planning Authority as worthy of safeguarding. The MCA identifies the area within Dorset County where the district and borough authorities are required to consult the Mineral Planning Authority over non-minerals development. Both the MSA and the MCA are identified on the Policies Map of this Plan (see Appendix 3) and will be reflected on Local Development Framework Adopted Policies Maps.

14.7 The minerals safeguarding approach does not seek to predict how much mineral is likely to be needed over the plan period but safeguards the viable mineral resource. Viability will change over time – with increasing scarcity, resources that are currently considered non-viable will become increasingly viable. However, the Minerals Strategy does not safeguard the entire mineral resource – the best current estimate of viable resources is safeguarded for future assessment and possible use.

Mineral Safeguarding Area

14.8 In Bournemouth, Dorset and Poole, the MSA comprises the proven mineral resource (based on mapping prepared by the British Geological Survey (BGS)) and amended to exclude:

a. previously worked land (provided the mineral resource is exhausted)
b. roads
c. land within settlement boundaries and
d. proposed urban extensions (where these coincide with the safeguarded building stone resource).

14.9 For sand and gravel, the MSA is based on mapping prepared by the BGS[26] and additional work commissioned from them on the sand and gravel resource[27]. Although this identified considerable reserves of sand and gravel within Bournemouth and extending into Poole, the majority of this resource is not safeguarded given its location within an urban area. However, more open areas to the north of Poole and Bournemouth where an aggregate resource exists have been included within the MSA.

14.10 A Ball Clay Consultation Area was identified in 1953, covering 147 km^2 of the Wareham Basin. This was updated in 2009 in consultation with the industry. This Consultation Area is designated as the ball clay MSA and has been incorporated into the MSA for Bournemouth, Dorset and Poole. It does not include land below the High Water Mark. The recent BGS ball clay study[28] has confirmed no changes are needed to the current ball clay safeguarding area.

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26 DiGMapGB-100 Mineral Resource data for Dorset, plus buffer (BGS 2007).
27 Background Paper 1: Dorset, Bournemouth and Poole Sand and Gravel Assessment (BGS External Report CR/11/049). BGS, 2011.
28 Background Paper 5: Ball Clay: a geological reappraisal to inform resource planning (BGS Minerals and Waste Programme Commissioned Report CR/11/50). BGS, 2011.

14.11 For Portland Stone, Purbeck Stone and other building stones, the areas to be safeguarded are the outcrops of these minerals as identified by BGS resource mapping, with roads and land within settlement boundaries removed. These have been modified and adjusted, removing those areas not considered worthy of safeguarding. Finally, the area of brick clay resource adjacent to the Swanage Brickworks (referred to in Chapter 13) is also included within the MSA.

14.12 The open operational land of Bournemouth International Airport is included in the MSA, while the areas covered by built development are excluded. If at some time in the future the open operational land (or any part of it) is no longer required and is proposed for built development, it will be subject to the same assessment process for prior extraction as any other land within the MSA.

14.13 Non-mineral development within the MSA must demonstrate that the sterilisation of proven mineral resources will not occur as a result of the proposed development, and that the development would not pose a serious hindrance to future extraction or processing in the vicinity. If this is not possible and there is a clear and demonstrable need for the non-minerals development to go ahead, the Mineral Planning Authority will work with the relevant district/borough and/or the developer to assess the feasibility of, and where possible ensure, prior extraction of an agreed proportion of the mineral resource before it is sterilised. Proposals for prior extraction of minerals must demonstrate that the site will not be left incapable of development for non-mineral use.

14.14 It is expected that the developer will carry out the necessary site investigations to prove the mineral resource. These will take into account factors such as the availability of the mineral, its relative scarcity, the timescale for the development going ahead, the possible extraction of the mineral and the viability of such extraction.

14.15 The Mineral Planning Authority and the districts and boroughs of Dorset will cooperate to minimise conflict between development options and proposals within their existing and emerging planning documents and to ensure that relevant statutory responsibilities, including provision of areas of Suitable Alternative Natural Greenspace (SANG), are discharged.

14.16 Proposals for prior extraction are required to be environmentally feasible[29] and potential impacts will be assessed on a site-by-site basis, using the environmental criteria set out in this Plan and taking into consideration the scale and timescale of the proposed built development and the proposed level of prior extraction.

29 Paragraph 143, bullet point 5 of the National Planning Policy Framework.

Policy SG1 - Mineral Safeguarding Area

The Mineral Planning Authority will resist proposals for non-mineral development within the Mineral Safeguarding Area, as shown on the Policies Map, unless it can be demonstrated that the sterilisation of proven mineral resources will not occur as a result of the development, and that the development would not pose a serious hindrance to future mineral development in the vicinity.

Where this cannot be demonstrated, and where there is a clear and demonstrable need for the non-minerals development, prior extraction will be sought where practicable and where it would not leave the site incapable of non-mineral use.

Mineral Consultation Area

14.17 As the Boroughs of Bournemouth and Poole are Mineral Planning Authorities in their own right, MCAs are **not** designated in the Bournemouth or Poole areas. In the Dorset County Council area, a MCA is designated in addition to the MSA, having the same boundaries as the MSA. District and borough authorities within the Dorset county area are required to consult Dorset County Council over non-minerals development proposals within the MCA. The MCA will be mapped and supplied to the districts/boroughs for use in their development management role.

14.18 The definition of development triggering a consultation is:

a. any extension of and/or change to the curtilage of a property within the MCA;
b. any material change in the use of land, particularly a change of use to residential areas, dwellings, schools, churches, visitor/tourist attractions, recreational areas, hospitals, hospices, travellers sites, cemeteries and prisons within the MCA;
c. any new built development proposed within the MCA.

14.19 Development within the curtilage of an existing property **does not require consultation**, in order to exclude the majority of routine householder or other (including employment, office and retail) applications.

Policy SG2 - Mineral Consultation Area

A Minerals Consultation Area is defined within Dorset County Council only. It has the same boundaries as the Minerals Safeguarding Area. District and Borough Councils will consult the County Council as Mineral Planning Authority on proposals for non-minerals development within the designated Mineral Consultation Area, as shown on the Policies Map. The Mineral Planning Authority will resist inappropriate development within the Mineral Consultation Area.

Safeguarding minerals facilities and other related development

14.20 Existing minerals sites and facilities are considered to include (but are not necessarily limited to): bulk transport facilities (including pipelines); industrial processes utilising minerals (such as roadstone coating plants and concrete batching and concrete product plants); aggregate rail depots and wharves; permitted but not yet worked quarries, mines and plant and facilities associated with existing quarries or mines; existing oil and gas production and distribution facilities; aggregate recycling facilities; and any sites proposed through the Minerals and Waste Development Framework for any of these uses. Some of these sites may be of a relatively low land value and could be vulnerable to pressures for redevelopment for other uses. However, they could be difficult or impossible to replace if lost to other uses.

14.21 The Minerals Strategy safeguards all such sites and facilities in Bournemouth, Dorset and Poole. There should be no non-minerals development within or in the vicinity of a safeguarded minerals site or facility that could encroach on the minerals operation and/or prevent or prejudice the working or processing of minerals in any way. This is intended to protect both the mineral and the non-mineral uses. This safeguarding requirement may be set aside where it can be demonstrated that there will either be no adverse impacts on the production of minerals or mineral products, or any adverse impacts can be satisfactorily mitigated.

Policy SG3 - Safeguarding of mineral sites and facilities

The Mineral Planning Authority will resist development that could prejudice the use of safeguarded operational and/or permitted mineral sites (including quarries, mines, associated plant and infrastructure and facilities) unless:

a. an alternative new site or facility within an acceptable distance can be provided, which is at least as appropriate for the use as the safeguarded location (and there would be no break in operations); or
b. it can be demonstrated by the applicant that there is no longer a need for a facility of this nature in the area; or
c. it can be demonstrated that the site is unused or dormant and is unlikely to come back into use.

The MSA is illustrated in Figure 28. For the Dorset County Council area, the MSA coincides with the MCA.

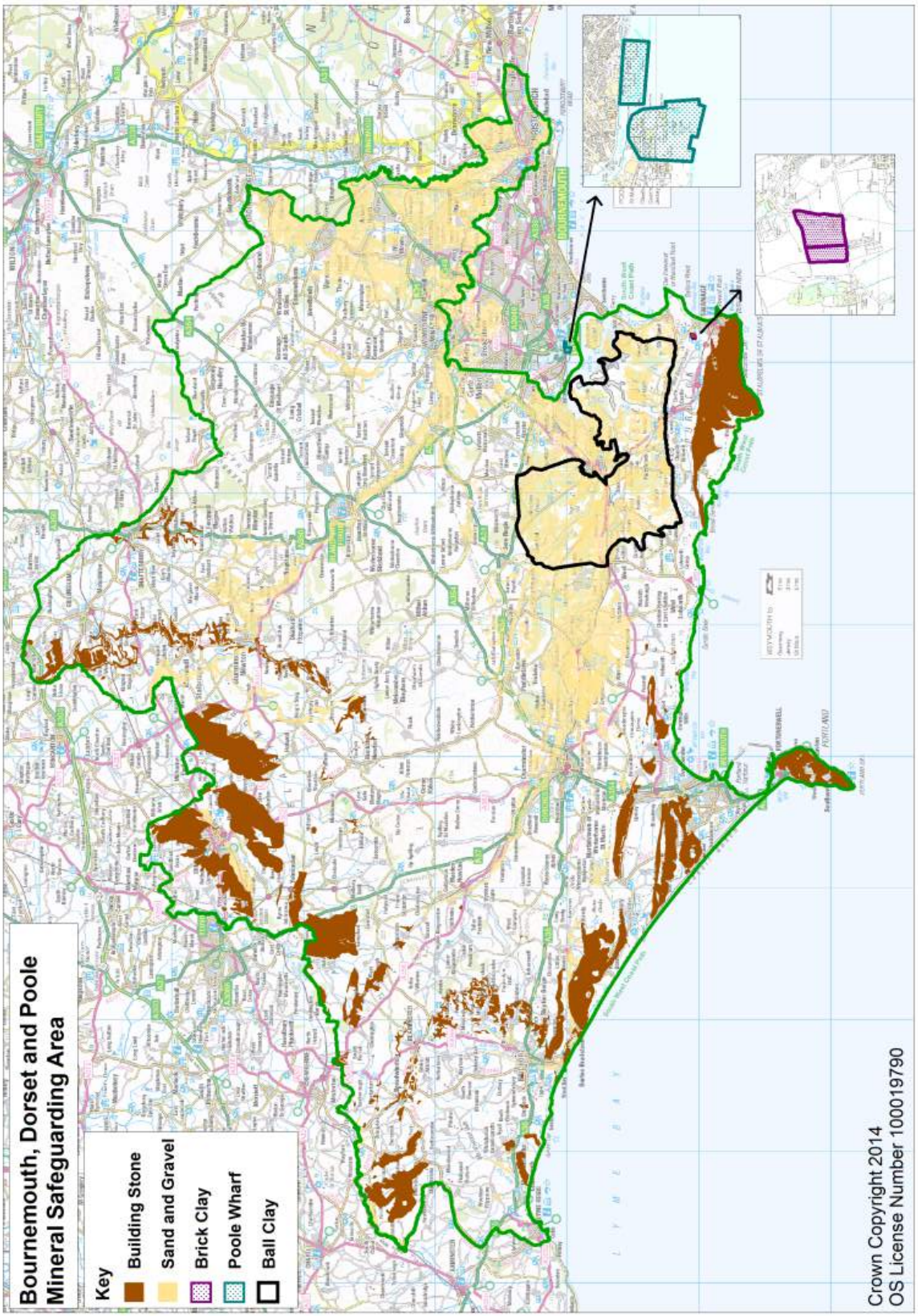

Figure 28 Mineral Safeguarding Area

15 Restoration, Aftercare and After Use

15 Restoration, Aftercare and After Use

Key Issue

Achieving high quality restoration, at the earliest possible opportunity, as an integral part of all minerals development. Ensuring restoration and afteruse is considered within the context of, and contributes to, the surrounding landscape character and local ecological interests.

Introduction

15.1 Although mineral working is a temporary land use, worked sites which are not appropriately restored can result in permanent adverse impacts on the environment, dereliction and lost opportunities. The overall restoration process includes the separate processes of site restoration and after-care, both of which prepare for the eventual after-use of the restored site. They cover any operations associated with the winning and working of minerals that are designed to return the land to an acceptable landform and after-use. They include preparations before mineral extraction and operations after extraction up until a final use has been established on site. Restoration of mineral voids offers a significant opportunity for the establishment or re-establishment of priority habitats, particularly through providing re-created linkages between fragmented blocks of specific habitat types, such as heathland. Retaining some geological exposures may also enhance the geodiversity interest.

15.2 The overall restoration process determines the amount of disturbance that may be experienced at any one time as a result of mineral working. It also establishes the long-term potential of the land for a wide range of after-uses that can benefit the local and / or wider community. The phasing of operations (i.e. sequential opening, working and restoring of separate parts or phases of the overall minerals site) is an important factor influencing the acceptability of minerals extraction to local residents.

15.3 There are two aspects to restoration considered in this chapter - the strategic/spatial approach to restoration within Bournemouth, Dorset and Poole and more detailed and specific guidance on specific site restoration. The latter looks in more detail at the separate aspects of restoration, aftercare and after use.

The Strategic Approach - Landscape Management Guidelines

15.4 Achieving high quality restoration must be integral to any proposals for minerals development. The strategy for restoration of minerals sites is consistent across the county and at the same time guides the restoration process towards a landform and land-use which is appropriate to the local landscape, biodiversity and geodiversity contexts.

15.5 The restoration strategy is based on the landscape types of the county. These are distinct types of landscape across the county that are relatively uniform in character, sharing broadly similar combinations of geology, topography, drainage patterns, vegetation, historical land use and settlement pattern. Examples include Limestone Plateau, Heath Forest Mosaic or Limestone Hills.

15.6 Specific land management guidelines relevant to each landscape type have been prepared and provide a broad framework for managing change. The guidelines establish specific principles for mineral site restoration within each landscape type, which are appropriate to that landscape type. They provide practical and locally relevant advice to developers, landowners, local authorities and the general public as to what will be expected through restoration of the land following mineral working. As a result, the restoration process is intended to ensure that the finished site will integrate easily into the landscape in which it sits. The guidelines should also ensure that the restoration process creates or enhances any Biodiversity Action Plan (BAP) priority habitats which might be typical of the relevant landscape type as well as delivering geodiversity benefits, particularly those that are in line with the Local Geodiversity Action Plan (LGAP).

15.7 The Landscape Management Guidelines are available as Background Paper 16: Restoration. Further and more detailed guidance on restoration will be provided through a subsequent Supplementary Planning Document, should this prove necessary.

Specific Guidance – Restoration

15.8 Restoration includes establishing the post-extraction land levels and landform, returning the soils stripped prior to extraction and preparing for the after-care stage. The Mineral Planning Authority encourages, where appropriate, the phased restoration of mineral sites with land restored as extraction progresses. This will minimise the area of land disturbed at any one time, limit the impacts upon sensitive areas and reduce the overall period of disturbance. Phased restoration also helps to gauge the initial success of the restoration scheme by showing what aspects have worked well and indicating those that have not.

15.9 Phased restoration is not appropriate or even possible in all cases. For example, some quarries are small (such as some building stone quarries) while others (such as ball clay quarries) are required to be kept open while mineral is extracted from different areas of the quarry. In such cases the most appropriate approach to restoration will be determined at the planning application stage.

15.10 Proposals for minerals development should be accompanied by a restoration scheme that provides comprehensive details of the order and timing of phases of mineral working, restoration and of the final main afteruses. Where possible the proposed scheme should incorporate some element of flexibility to take account of changing circumstances during the life of the development and beyond. It should aim to integrate and facilitate the delivery of any relevant mitigation measures, as identified in assessments undertaken to support the planning application. It is strongly advised that these matters are discussed with the Mineral Planning Authority at the pre-application stage, and where possible involve input from relevant key stakeholders to resolve any potential conflicts of interest.

15.11 The restoration process should be carried out in a timely manner, with developers indicating a reasonable time-frame for the restoration process as part of their initial restoration proposals. Where practicable, the overall scheme of working should include internal haul roads and ensure that these do not pass through earlier phases of the development that have already been restored. The Mineral Planning Authority will, in exceptional circumstances, require financial guarantees to ensure satisfactory and timely restoration.

15.12 In cases where, as part of a mineral extraction operation, overburden or interburden is removed and not subsequently required for restoration of the site from which they were originally taken, it may be possible that they can be transported to another site to contribute to the restoration or after-use of that site. Moving material in this way may cause transport and other impacts and will be assessed using the environmental criteria of this Plan to ensure that any adverse impacts are avoided or mitigated to an acceptable level. These movements may also have waste management implications and may require additional waste regulation/permitting.

15.13 Soils must be adequately protected and maintained throughout the life of the development, particularly if a site comprises land that qualifies as best and most versatile agricultural land. Where necessary, proposals for minerals development should be supported by a site specific Land Classification Survey, undertaken by an independent expert to determine the grading and agricultural value of the proposed site. The survey should incorporate a report/statement of physical characteristics, providing detailed information about the soils, subsoils and overburden within the boundaries of the site. Where the proposed afteruse is to be one which requires little or no soil, e.g. a lake or a nature reserve requiring impoverished soil resources, it would be better for soils to be removed from site and used beneficially elsewhere.

15.14 The results of the assessment should be used to inform the restoration scheme and provide details of the measures that will be needed to ensure the adequate protection of these soil resources during stripping, storage and management. The Mineral Planning Authority will be able to inform applicants at the pre-application discussion stage whether a proposal will require a Land Classification Survey. Information on Agricultural Land Classification and Land Classification Surveys can be found on the Defra website[30].

15.15 In some cases, materials (such as inert waste) will need to be imported to ensure that the site can be restored and returned to a beneficial after-use. Phased restoration of a site may require an adequate and timely supply of suitable material in order to ensure that the development can proceed on schedule. However, inert fill material may not necessarily be available in the required quantities and timescales, since the introduction and application of Landfill Tax has reduced the amount of inert material available. In addition, Government encourages the recycling and use of construction and demolition waste as an alternative to primary aggregates. The Mineral Planning Authority will require developers to demonstrate that materials to be imported for restoration purposes are both suitable (based on the advice of the Environment Agency) and are available in sufficient quantity and when needed to

30 Agricultural Land Classification of England and Wales (MAFF 1988) and Defra Guidance for Successful Reclamation of Minerals and Waste Sites (Defra 1999).

achieve the proposed restoration scheme. As far as reasonably possible recyclable material capable of producing high quality washed recycled aggregates should already have been removed from inert material to be used in site restoration.

15.16 The restoration of quarries through the importation of waste will require approval by the Environment Agency in the form of an Environmental Permit, or possibly an exemption from Environmental Permitting Regulations. The Environment Agency will not normally issue an Environmental Permit for infilling of waste in Groundwater Source Protection Zone One.

15.17 As noted earlier, biodiversity gains can be achieved through the restoration of mineral sites by contributing to Dorset Biodiversity Strategy targets and national habitat creation targets. It may be possible for an active quarry BAP to be produced for a particular site, outlining in detail how the site will seek to enhance biodiversity. Phased restoration schemes should incorporate measures such as advance tree planting (where appropriate), to ensure that biodiversity benefits are realised at the earliest opportunity.

15.18 Any mineral extraction has the potential to be of geological interest. The exposures created can be valuable for scientific study and specimen collection, with assessment and records made on site as working progresses. Restoration can, where appropriate, ensure that the geological exposures created are retained to enhance Dorset's geodiversity interests. Retained rock exposures can enhance geodiversity and create new habitats. Important features may be valuable for education and future research or even for designation at the local or national level.

15.19 One of the potential impacts of climate change will be more extreme climate events, such as flooding. Careful site restoration can provide a buffer for existing areas/habitats from such events - for example, restored mineral workings can provide storage capacity during extreme flood events, thus helping to protect areas at risk of flooding.

15.20 National policy states that certain forms of development, including mineral extraction, are not inappropriate in Green Belt provided they preserve the openness of the Green Belt and do not conflict with the purposes of including land in Green Belt. Mineral development, including buildings for the handling and processing of minerals, can be accommodated within the Green Belt provided that high standards of design including landscape design are maintained and all development is tied to the life of the extraction.

15.21 Minerals development will be expected to contribute, where relevant, to the green infrastructure (strategic networks of well-planned, multi-functional green spaces) of Bournemouth, Dorset and Poole, particularly through the restoration and after-use of minerals development sites. Restored minerals sites can also, where appropriate, function as Suitable Alternative Natural Greenspace (SANG), serving to offset visitor and other pressures on European and other designated sites. The green infrastructure that can be provided through minerals planning can make a significant contribution to mitigating and adapting to climate change. Benefits include:

a. providing flood water storage, sustainable drainage, urban cooling and shading;
b. creating and enhancing wildlife habitats and 'green corridors' for wildlife;
c. creating attractive and sustainable communities;
d. improving health and the social development of children;
e. providing focal points for community activities;
f. absorption of atmospheric carbon;
g. increased quality of life and well-being of rural communities through access to local sports and recreation facilities.

Specific Guidance - Aftercare

15.22 After the mineral has been extracted and the stripped soils returned, the aftercare period is the time when the site is prepared for the agreed after-use. Aftercare can include the processes of cultivating, fertilising, planting, draining and otherwise treating the land. The minerals operator is normally still responsible for the site at this time. An appropriate period of aftercare is needed to ensure mineral sites are restored to a standard suitable for their intended after-use.

15.23 Different after-uses may require different periods of aftercare. The statutory after-care period is 5 years, but some uses such as nature conservation may benefit from an aftercare period of up to 20 years or more, whilst agriculture may only need a 5 year aftercare period. Where possible and where appropriate, voluntary extended after-care periods will be negotiated for those uses that would benefit from such longer periods.

15.24 It is important that management responsibilities are identified and agreed between the developer and those taking on the post-extraction/restoration management of the site, to ensure that the proposed after-use can and will be delivered. The Mineral Planning Authority will encourage developers to enter into planning agreements to ensure that the appropriate aftercare provisions remain in effect for the required aftercare period.

15.25 In exceptional circumstances where the Mineral Planning Authority is unable to gain the necessary assurances that restoration will be implemented in accordance with the requirements of the Minerals Strategy, developers will be asked to make or demonstrate funding guarantees to ensure that funding will be available for the restoration of sites.

Specific Guidance - After-use

15.26 The after-use is the agreed use to which the site will be returned following mineral development, usually either a use providing employment opportunities (such as agriculture or forestry) or a nature conservation or recreational use or some combination of these. At this stage the mineral operator is normally no longer responsible for the site and it is handed back to the original owner or some other agency for on-going use and management. After-use proposals should have regard to the wider context of the area within which restoration proposals are planned. This will ensure the most appropriate after-use is achieved.

15.27 The reclamation of mineral sites must consider the potential impacts upon landscape character. Landscape Character Assessments (LCAs) can be used to describe and map the landscape and provide information on which judgements can be made about what is important and why. The Dorset Landscape Character Assessment (and other locally produced LCAs) along with the landscape type management guidelines referred to earlier, should be used to inform the type and design of restoration, aftercare and after-use proposals, in order to ensure schemes are appropriate in terms of effects upon the landscape. Reclamation should also take into consideration the historic landscape and cultural heritage, and any possible impacts on these.

15.28 In addition, restoration should take into account the relevant Local Development Frameworks and where appropriate contribute to the delivery of those Frameworks. Minerals companies will be encouraged to involve local communities, parish councils and local nature partnerships when considering options for restoration and aftercare.

15.29 Minerals development in Dorset generally occurs in rural areas where agriculture is the predominant land use and often sites will be restored to agriculture/forestry. There is no expectation that minerals sites should be restored to an agricultural use as their location may be neither suitable nor appropriate for agriculture. Nevertheless, in many cases it is an option and can help to deliver biodiversity gains through creation of BAP Priority Habitats (such as hedgerows, ponds and arable field margins) and features for BAP species associated with agriculture (such as skylark strips). Other sustainable land-use practices would be appropriate in certain circumstances. In addition, where the most appropriate after-use is identified as agricultural purposes, the growing of non-food crops such as bio-mass energy crops should be considered given the benefit this brings in mitigating the effects of climate change.

15.30 In areas where the water table is relatively close to the surface, restoration to a water-based after-use is often the most practicable approach. However, proposals for mineral extraction may fall within an Airfield Safeguarding Area where water based restoration proposals may not be suitable, and restoration schemes must address the issue of risk of birdstrike to aircraft. This is covered in Policy DM9.

15.31 Policy RS1 encourages a range of after-use proposals which may benefit local communities. These include the creation of employment opportunities or recreation/amenity open space, including public rights of way. The after-use of mineral sites may not always provide economic benefits but the provision of employment and opportunities for inward investment associated with recreation and tourism may be possible in some cases.

Policy RS1 - Restoration, Aftercare and Afteruse of Minerals Development

Proposals for minerals development will be permitted where they demonstrate a high quality and appropriate restoration scheme which will enable an appropriate after-use and the long-term maintenance and enhancement of the environment. They will be required to have regard to the Landscape Management Guidelines and, where possible, contribute to the targets of the Dorset Biodiversity Strategy.

Proposals must demonstrate that:

Restoration

a. where possible the restoration scheme incorporates phased restoration of the site that will minimise the period of operations to protect settlements and residential amenity and to minimise the duration of landscape and environmental impacts;
b. measures will be taken to ensure that soil quality will be adequately protected and maintained throughout the life of the development and, in particular, during stripping, storage and management of soils, subsoils and overburden arisings as a result of site operations;
c. there is an available supply of appropriate materials to be used for restoration purposes, as required to implement the proposed restoration scheme;
d. where inert waste is to be used in restoration the constituent parts capable of use in the production of high quality washed recycled aggregates have, as far as reasonably possible, already been removed;
e. the restoration scheme will maximise the potential of the site for the successful adoption of the proposed after-use and where necessary offer flexibility for a range of potential after-uses;
f. restoration will be undertaken at the earliest opportunity and the amount of time expected to be required for restoration of the site will be indicated;
g. where appropriate, geological exposures will be retained;
h. for sites within the Green Belt, all minerals-related and other uses will have ceased by the time the extraction has been completed and the site will be restored in a manner appropriate to its original inclusion in the Green Belt designation;
i. financial provision is, in exceptional circumstances, made for the proposed restoration;

Aftercare

j. the aftercare scheme incorporates an aftercare period of at least five years; where appropriate, voluntary longer periods for certain uses will be sought through agreement;

After-use

k. where the proposed after-use is agriculture, provision is made for retention or replacement of soils and any necessary drainage, access, hedges and fences;
l. where the proposed after-use includes habitat creation, it should contribute to the delivery of the Dorset Biodiversity Strategy objectives where appropriate;
m. the after-use will be compatible with the wider context of the site, in terms of the character of the surrounding landscape and historic environment (informed by the Dorset Landscape Character Assessment and Historic Landscape Character Assessment) and existing land uses in the area, having considered the relative potential benefits of alternative after-uses in local or national terms;
n. the green infrastructure network will, where possible, be strengthened and improved;
o. where opportunities arise, the after-use provides benefits to the local and wider community which may include enhancement of biodiversity and geodiversity interests, linking of site restoration to other green infrastructure initiatives, enhanced landscape character, improved public access, employment, tourism or provision of climate change mitigation measures.

Retention of Plant and Machinery on Site

15.32 An existing mineral operation such as a quarry may incorporate other uses such as aggregate recycling or block making which benefit from a location within a quarry. In such cases it may be more appropriate to retain the plant and machinery associated with the additional use(s) on site after mineral extraction has ceased, rather than moving to an alternative site.

15.33 However, there will also be cases where the ancillary development will be required to be removed as part of the restoration process. Policy RS2 sets out the basis on which the acceptability of retaining the ancillary development is assessed to determine whether it should be allowed to remain or should be removed. In the case of existing buildings, plant or ancillary development at a mineral operation where the original development is coming to the end of its life, the need for retaining plant/machinery must be demonstrated.

Policy RS2 - Retention of Plant, Machinery and other Ancillary Development

Permission for the retention of plant, machinery and any other ancillary development associated with any mineral development/operation will not extend beyond the life of the development with which it is associated, or any earlier date that may be set, except where it can be demonstrated that:

a. there is an identified need for the continued use of the plant, machinery or ancillary development at that site or any extension to it;
b. any adverse impacts associated with retaining the plant, machinery or ancillary development can be avoided or mitigated to an acceptable level; and
c. retention of the plant, machinery or ancillary development does not affect restoration of the wider site.

Local Liaison Groups

15.34 The Mineral Planning Authority encourage and support the establishment of local liaison groups for the lifetime of any site, including both working and restoration. These groups are set up so that any issues of concern relating to the development can be discussed and resolved as soon as possible after the problems arise. The groups may include officers of the Mineral Planning Authority and the District/Borough, the developers, local communities and other interest groups where relevant.

Policy RS3 - Local Liaison Groups

The Mineral Planning Authority will encourage the establishment of local liaison groups to run for the lifetime of any minerals extraction site or aggregates recycling operation.

16 Development Management

16 Development Management

Introduction

16.1 Planning permission is required for minerals development and the main principles upon which decisions on planning applications will be based are set out in this section. Policies DM1 to DM11 are intended to manage the operational impacts associated with all types of minerals development. To facilitate the determination of a minerals planning application, Dorset County Council has produced a listing of all the supplementary information required to be submitted, this can be found on our website.

Sustainable Minerals Development

16.2 Section 39 of the Planning and Compulsory Purchase Act 2004 requires the planning process, including minerals planning, to make a contribution to the achievement of sustainable development. National policy establishes strong support for and a presumption in favour of sustainable development. For minerals, this recognises the need to supply minerals and the important contribution they make to daily life. It recognises that minerals development can have significant adverse impacts on the local environment and local communities. In seeking to achieve sustainable development for minerals, the Mineral Planning Authority encourages applicants to take a holistic view of any proposed minerals development, reconciling the need for minerals and economic returns with potential impacts on local communities and the wider environment, and identifying mitigation strategies to address adverse impacts.

16.3 Policy DM1 sets out a series of key criteria against which all applications for minerals developments will be assessed by the Mineral Planning Authority in order to gauge the extent to which the proposal delivers sustainable development. The policy requires mitigation of unacceptable impacts, to make an otherwise unacceptable proposal acceptable. Where mitigation proves impossible, the implication is that the impacts make that development unacceptable.

16.4 Quality of agricultural land must be considered alongside other sustainability considerations. Where significant development of agricultural land is unavoidable, poorer quality agricultural land should be used in preference to 'best and most versatile agricultural (BMV) land', except where this would conflict with other sustainability considerations.

Policy DM1 - Key Criteria for Sustainable Minerals Development

Proposals for minerals development should support the delivery of social, economic and environmental benefits whilst any adverse impacts should be avoided or mitigated to an acceptable level.

In order to achieve this, all proposals for minerals development must demonstrate that all the following criteria have been addressed satisfactorily:

a. minimisation of impacts which could increase the effects of climate change;
b. protection and, where appropriate, enhancement of local amenity;
c. protection and, where possible, enhancement of biodiversity and geodiversity, including nationally and internationally designated sites;
d. protection and, where appropriate, enhancement of heritage assets;
e. protection and, where appropriate, enhancement of landscape, including the avoidance and/or mitigation of visual and landscape impacts through sensitive design, screening or other means;
f. preparation of a scheme of working that will keep production of mineral waste to a minimum, while ensuring availability of an adequate amount of material for timely restoration of workings;
g. protection of soil resources throughout the life of the development and, where significant development of agricultural land is demonstrated to be necessary and there is a choice of location, giving preference to the development of poorer quality land over higher quality or best and most versatile land;
h. efficient use of water resources on the site;
i. avoidance or mitigation of, or compensation for, adverse impacts on the water environment and flood risk;
j. avoidance of cumulative impacts resulting from minerals or other development, whether current or proposed;
k. use of sustainable transport; and
l. restoration, aftercare and after-use proposals and compliance with the strategy for restoration.

Managing the impacts of minerals development on amenity

16.5 Applicants are encouraged to adopt an integrated mitigation strategy at an early stage to manage the adverse impacts that are likely to arise as a result of minerals development. The mitigation strategy should bring together the policy requirements of the Minerals Strategy. It should also address any other policy requirements, including local, national or international policy, that may be relevant to the proposed development. It should ensure that the proposed scheme of working, including extraction, processing, transportation and the impacts of any ancillary structures, has been fully assessed and appropriate steps taken to minimise impacts.

16.6 Minerals development can have significant effects on amenity and the environment, and must be carefully managed. Proposals should first seek to avoid adverse environmental impacts and then, if this is not possible, should identify options for mitigation of the impacts. Possible impacts may include noise, vibration and emissions to air from quarry traffic and processing plant, debris on the roads, subsidence of the land, the raising of dust during dry periods, light pollution and visual intrusion. Minerals developments often generate high volumes of HGV traffic and, as well as being linked to many of the impacts listed above, air emissions from quarry traffic are identified as contributors to climate change and can adversely affect people's health. These impacts must be kept to a minimum through the use of appropriate mitigation measures such as:

a. the incorporation of an appropriate buffer between residents and mineral workings - this should be a minimum of 100 metres from the nearest sensitive receptor(s) unless a smaller buffer would be achievable without causing adverse impacts;
b. landscaping to create temporary screening bunds;
c. using natural vegetation for screening purposes (planted in advance of the development where possible);
d. restricting the hours of operation;
e. water bowsers to suppress dust, and wheel washers to reduce the road debris caused by lorries;
f. the phasing of operations to reduce the impact on local residents;
g. the choice of route, location and suitability of access arrangements for vehicles entering and leaving the site;
h. the use of shields, louvres and baffles, together with restrictions on operational hours, to prevent 'light spill', 'light trespass' and 'sky glow' in sensitive areas.

16.7 Policy DM2 seeks to ensure that the potential adverse impacts associated with minerals development are managed in order to protect amenity and the environment. National policy requires that the environmental effects of minerals extraction should, as far as possible, be controlled, mitigated or removed at source, so as to reduce potential adverse impacts to an acceptable level. The term 'life cycle of the proposed development' as used in the policy refers to the period from the beginning of the development until the end of the after-care period.

16.8 Some impacts, including land instability, can be transferred considerable distances from a mineral operation and may occur both above and below ground level. Traffic impacts associated with minerals development can also be felt at some distance from their source. Although it is not always possible to control all such impacts, Policy DM2 will, where possible, be used to address issues such as congestion which can be directly attributed to mineral development. Policy DM8 addresses other aspects of traffic impacts.

16.9 Site operators will be expected to implement mitigation measures to reduce the impact of lorries and other vehicles travelling to or from a site on the road network and wider environment. Such measures include using water bowsers to suppress dust during spells of dry weather; wheel and chassis washing to prevent debris from being deposited on the road network; sheeting of loads and following agreed routes; and the location and design of access arrangements for vehicles entering and leaving a site. The use of internal haul routes within quarries can also reduce transportation impacts and will be encouraged where appropriate.

Policy DM2 - Managing Impacts on Amenity

Proposals for minerals development in Bournemouth, Dorset and Poole will only be permitted where the proposals demonstrate that, for the life-cycle of the proposed development, any potential adverse impacts associated with the following considerations are avoided and/or adequately mitigated to an acceptable level:

a. noise levels;
b. dust levels;
c. air emissions;
d. lighting;
e. visual and landscape impacts,
f. vibration levels,
g. site related traffic impacts; and
h. stability of the land at and around the site, both above and below ground level.

Proposals for mineral development should be accompanied, where appropriate, by an assessment of the above impacts of the proposal. Where a need for mitigation is identified by the assessment and / or through consultation with key stakeholders, mitigation measures should be defined and submitted as part of the development proposal.

The assessment, together with any required mitigation, must consider impacts over the entire life-cycle of the proposed development. The fact that impacts of mineral extraction, including those resulting from HGVs and other traffic servicing the proposed development, may extend for considerable distances beyond the boundaries of the proposed development site must be taken into consideration and appropriately mitigated.

Managing Impacts on Surface and Ground Water

16.10 Minerals development, particularly sand and gravel and ball clay extraction, will at some point affect surface and ground water resources. There will be potential for adverse impacts to water quality and water levels, including aquifers, both within and beyond the boundaries of a site. This could occur through activities such as abstraction of water for mineral washing and processing, removal of water from areas where minerals will be worked below the water table, or the storage of fuels and other chemicals necessary for the development. These aspects of minerals development must be assessed and properly managed. One of the effects of climate change could be more extreme weather events, including an increase in the risk of flooding. Managing the impact of minerals development on the water environment will take into account increased flood risk.

16.11 National policy seeks to ensure that flood risk is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding, and to direct development away from areas at highest risk. A site-specific flood risk assessment is required for proposals of 1 hectare or greater in Flood Zone 1 (see Glossary) and all proposals within areas at risk of flooding as identified by the Bournemouth, Dorset and Poole Level 1 Strategic Flood Risk Assessment (SFRA)[31]. This document also includes guidance on carrying out Flood Risk Assessment . Further guidance on flooding issues is also available from the National Planning Policy Framework (paragraphs 99-104)[32] and from the online Planning Practice Guidance[33].

16.12 Ancillary buildings and hard-standing associated with minerals development can also lead to increases in surface run-off and therefore could contribute to flooding. Sustainable Drainage Systems (SUDS) that are capable of storing and controlling the discharge of water associated with these areas should also be incorporated into the design of proposals. Information on SUDS can be found in the Bournemouth, Dorset and Poole 2010 SFRA.

16.13 The Environment Agency is the main body responsible for safeguarding the water environment. Its concerns include ground and surface water protection, pollution control, flood defence, land drainage, recreation, fisheries and conservation. Pre-application discussions with the Environment Agency, the Mineral Planning Authority and the relevant sewerage undertakers / infrastructure providers on matters likely to affect surface and groundwater resources are strongly encouraged. Applicants will be required to assess the potential impacts upon the water environment at both extraction and restoration phases, undertaking a hydrological/hydrogeological investigation where necessary.

31 Bournemouth, Dorset and Poole Level 1 SFRA: Halcrow, December 2010
32 Department for Communities and Local Government: March 2012
33 See: http://planningguidance.planningportal.gov.uk/

16.14 Rivers, open watercourses, wetlands and ponds together with the land alongside these features have high ecological value and will be protected. Aquatic ecosystems are communities of organisms that are dependent on each other and on their environment. Development should aim to prevent deterioration and enhance the status of these aquatic ecosystems. The two main types of aquatic ecosystems are marine ecosystems and freshwater ecosystems and associated wetlands. There should be no loss of open watercourse or wetland areas as a result of proposed developments where these features are present on a site. A continuous river corridor should be maintained to provide for the movement of wildlife.

16.15 Development in Flood Zone 3a or 3b is likely to be unacceptable if it involves the raising of existing ground levels, or impedes flood flows and measures for flood compensation storage cannot be implemented[34]. In cases where the development could not be adequately controlled and would present an unacceptable risk to the water environment, or would exacerbate flood risk, planning permission should not be granted. However, Planning Practice Guidance [35] on Flood Risk identifies mineral working as 'less vulnerable' and appropriate in Flood Zone 3a, and sand and gravel working as 'water compatible' and therefore appropriate in Flood Zone 3a and 3b.

16.16 The Water Framework Directive (WFD)[36] looks at the ecological health of surface water bodies. Minerals development proposals should be assessed and any adverse impacts on ground water or water bodies identified under the South West River Basin Management Plan[37] should be capable of mitigation. Successful implementation of the Water Framework Directive will help to protect all elements of the water cycle and enhance the quality of ground waters, rivers, lakes, estuaries and seas. Where sites may cause ground water impacts regard should also be had to the Environment Agency's Groundwater Protection Policy and Practice document (GP3)[38]. The document describes how groundwater should be managed now and for the future to prevent or mitigate impacts.

34 Bournemouth, Dorset and Poole Level 1 SFRA (Halcrow, December 2010).
35 See: http://planningguidance.planningportal.gov.uk/
36 Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for the Community action in the field of water policy - October 2000
37 Environment Agency - December 2009
38 Underground, Under Threat - Groundwater protection: policy and practice - Part 3: tools. Environment Agency.

Policy DM3 - Managing the Impact on Surface Water and Ground Water Resources

Proposals for minerals development which would have an impact on water resources, including aquifers, will only be permitted where it can be demonstrated that the local water environment would be protected and where appropriate enhanced. Provision should be made to ensure the protection and maintenance of the:

a. quality;
b. direction and rate of flow; and
c. volume of flow of ground water, water courses and all other surface water.

Rivers, open watercourses, wetlands and ponds which have a significant ecological value, together with the land alongside these features, should be protected. Development should aim to prevent deterioration and where appropriate enhance the quality of aquatic ecosystems and associated wetlands.

Flood Risk Assessment (FRA) will be required for minerals development proposals in areas at risk of flooding or likely to contribute to flooding elsewhere, relative to the nature and scale of the development, and must take into account cumulative effects with other existing or proposed development. Where a risk of flooding is identified through FRA, proposals must include measures to ensure the avoidance and / or mitigation of that risk.

Development proposals will also be required to include provisions for the efficient use of water resources on site and the use of Sustainable Drainage Systems (SUDS).

Landscape and the Countryside

16.17 Minerals development, followed by appropriate restoration, has the potential to bring benefits and enhancements to landscapes. Good design, including landscape design which respects local distinctiveness, is at the heart of the planning system. The quality of the landscape today, its maintenance and where appropriate enhancement, is a key consideration for minerals planning. It is important that attention should be focused on more than just the 'high quality' landscapes such as those found in designated areas and should include the diversity of surroundings.

16.18 Government policy requires that major mineral developments should avoid nationally designated landscape areas – including Areas of Outstanding Natural Beauty (AONB), National Parks and World Heritage Sites – as far as is practical. Major proposals for minerals development within or adjacent to a landscape of national importance should be subject to the most rigorous examination. Any built structures and ancillary buildings associated with minerals development should be sited and designed to minimise their visual impact, through the appropriate use of scale and form. Development should not result in unacceptable landscape and visual impacts, or unacceptable impacts upon the special qualities that underpin the AONB designation, including aspects such as tranquillity and remoteness, an undeveloped rural character, dark skies, panoramic views and stark contrasts of landform.

16.19 The New Forest National Park lies adjacent to Dorset. National Parks have the highest level of protection in relation to landscape and scenic beauty. This places a duty on all relevant authorities to have regard to the two statutory purposes of National Parks in making decisions which could impact on them. The two Park purposes are: to conserve and enhance the natural beauty, wildlife and cultural heritage of the National Park; and to promote opportunities for public understanding and enjoyment of the special qualities of the National Park.

16.20 For good reasons some of the minerals found in Dorset currently are and will continue to be extracted within designated areas. Ball clay has a high economic value and is recognised as nationally and internationally important. Chapter 8 accepts that significant weight must be given to continued extraction within the AONB if supply is to be maintained. The Purbeck Stone resource is entirely contained within the AONB. Its extraction contributes to the local economy and to Dorset's unique sense of place. The strategy contained in Chapter 9 aims to maintain an adequate and steady supply. Major extraction of other more commonly found minerals, such as aggregates, are unlikely to be considered acceptable within these nationally designated landscapes. Policy DM4 ensures that provisions are in place to protect and enhance designated landscapes and their setting. Guidance in paragraphs 115 and 116 of the NPPF, along with relevant development plan policies, will be taken into account in the determination of applications.

16.21 Other land uses such as public open space, Public Rights of Way and outdoor recreational facilities all contribute to the landscape setting of an area and are an important consideration for minerals development proposals. Minerals development should not result in the net loss or degradation of such features.

16.22 Minerals development is likely to have a significant impact on its surrounding landscape character and planning applications for such development will need to be accompanied by an assessment which should consider the landscape and visual effects of the proposals, appropriate to the nature and scale of the development. It should also include, where appropriate, reference to tranquillity and cumulative impacts of other developments and historic human uses and influences. Seeking advice at the pre-application stage on the scope and details of what landscape and visual assessments should consider and when they should be undertaken is strongly advised.

16.23 The Dorset Landscape Character Assessment (LCA) is a detailed assessment of the character of the county, and will also form an important part of any assessment. The LCA can be found on the Dorset County Council website. It sits within the national framework of Countryside Character Areas and Natural Areas, identifying variations in landscape character at a sub-regional level. It helps in understanding how the landscape has evolved and contributes to making informed decisions on managing change in the future. In addition, a Landscape Change Strategy for Dorset is being developed, to help manage change in the county whilst minimising impacts and wherever possible, seeking to enhance landscape character.

Policy DM4 - Protection and Enhancement of Landscape Character and the Countryside

Minerals development will only be permitted when the proposals include provisions to protect and/or enhance the quality, character and amenity value of the countryside and landscape.

Development will be expected to ensure the protection of the following designations of national importance, together with their settings, in accordance with the relevant statutory requirements:

a. the New Forest National Park;
b. the Cranborne Chase and West Wiltshire Downs Area of Outstanding Natural Beauty; and
c. the Dorset Area of Outstanding Natural Beauty.

The importance of non-statutory designations, such as the West Dorset Heritage Coast and the Purbeck Heritage Coast, must also be taken into consideration.

Each proposal for minerals development should be accompanied by an objective assessment of any impacts upon the local landscape character and its setting (including historic landscape character) having regard to the status and significance of any heritage assets affected.

The assessment should be informed by the Dorset Landscape Character Assessment as a minimum. Where the proposed development is situated within or in proximity to an Area of Outstanding Natural Beauty or the New Forest National Park, the relevant Management Plan and Landscape Character Assessment must also be taken into consideration.

Development which affects the landscape will only be permitted if it can be demonstrated that any adverse impacts can be:

i. avoided; or
ii. where an adverse impact cannot be avoided, the impact will be adequately mitigated; or
iii. where adverse impacts cannot be avoided or adequately mitigated, compensatory environmental enhancements will be made to offset the residual landscape and visual impacts.

Biodiversity and Geological Conservation

16.24 The Plan area comprises a rich source of biodiversity and geodiversity, with 22 internationally protected nature conservation sites including Special Areas of Conservation (SACs), Special Protection Areas (SPAs) Ramsar sites, the Dorset and East Devon Coast World Heritage Site, 141 Sites of Special Scientific Interest (SSSIs), some 63 Local Geological Sites (LGSs)[39] and around 9 National Nature Reserves. Unless effectively managed, minerals development could potentially result in adverse impacts on features of biodiversity and geological interest. The Mineral Planning Authority considers features of biodiversity and geological interest to comprise:

Sites and species of European and international importance:

a. Special Areas of Conservation (SACs)
b. Special Protection Areas (SPAs)
c. Ramsar sites
d. European Protected Species
e. Dorset and East Devon Coast World Heritage Site

Sites to be given the same protection as European sites, for the purposes of Policy DM5:

f. Possible SACs
g. Potential SPAs
h. Proposed Ramsar sites
i. Candidate SACs and areas which would meet the criteria needed to justify designation as an SPA
j. sites identified, or required, as compensatory measures for adverse effects on European sites or those listed in f-j

Sites and species of national importance:

k. Sites of Special Scientific Interest (SSSIs)
l. Habitats and Species of Principal Importance [40]
m. National Nature Reserves

Sites and species of regional and local importance:

n. Local Geological Sites (LGSs)
o. Dorset Biodiversity Strategy habitats and species
p. Sites of Nature Conservation Interest (SNCI)

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39 Formerly known as Regionally Important Geological and Geomorphological Sites

40 This term is derived from the Natural Environment and Rural Communities (NERC) Act. Section 41 (s.41) of the Act requires the Secretary of State to publish a list of habitats and living organisms which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England, as required by the Act. The s.41 list is used to guide decision-makers such as public bodies, including local authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

q. Local Nature Reserves
r. Ancient Woodland and Veteran Trees

together with any area / habitat that could be considered to be essential to connect / support habitats or species such as those listed above.

16.25 Policy DM5 will apply to sites which have yet to receive a European/international designation if they meet the necessary qualifying features and the Government has given initial approval to their proposed designation. Sites which could qualify as SPAs but which have yet to be brought forward for consideration are considered in paragraph 16.32.

16.26 A number of areas of biodiversity interest in Bournemouth, Dorset and Poole already have significant European and national protection. Any proposal that could potentially impact upon a site protected under the Conservation Regulations 2010 is legally required to be subject to assessment under those Regulations. The key factors that could affect whether the development of a minerals site would be likely to significantly affect a European site are set out in the Bournemouth, Dorset & Poole Minerals Strategy Habitats Regulations Assessment (2012) and included below:

a. hydrology - in some cases water regimes are critical to the maintenance of wetland interest features of the European heathland sites; chalk rivers are also significantly affected by hydrological regimes and watercourses provide essential corridors for wildlife dispersal.
b. displacement of recreation - the use of land for mineral extraction or processing may result in the public using alternative areas, such as a designated site, for recreation (including for dog walking), which would generally threaten its integrity;
c. proximity - in general the closer a mineral site to a European site, the more likely there will be significant effects;
d. species - characteristic species of European sites are often found beyond site boundaries; and
e. management - where the current land-use contributes or could contribute to the management of a nearby European or international site.

16.27 Policy DM5 seeks to avoid adverse effects on the integrity of European sites. Any proposal likely to have a significant effect on a European site, either individually or in combination with other proposals, must undergo an Appropriate Assessment to determine its implications for the site's conservation objectives. The competent authorities can only agree to the proposal after having ascertained that it will not adversely affect the integrity of the site concerned (in accordance with Article 6(3) of the Habitats Directive). In exceptional circumstances a plan or project may still be allowed to go ahead, in spite of a negative assessment, provided that three sequential tests (under Article 6(4) of the Habitats Directive) are met:

- there must be no feasible alternative solutions to the plan or project which are less damaging to the affected European site(s)

- there must be 'imperative reasons of overriding public interest' (IROPI) for the plan or project to proceed
- all necessary compensatory measures must be secured to ensure that the overall coherence of the network of European sites is protected.

16.28 It is considered that the avoidance of adverse effects on European sites will be achievable in almost all cases. Nevertheless it is acknowledged that for ball clay a situation may arise in the latter part of the plan period where the tests of Article 6 (4) may need to be considered and Government guidance[41] should be followed in such an instance.

16.29 European Protected Species, found outside of a SAC/SPA, are the responsibility of the competent authority (i.e. in minerals planning matters the Minerals Planning Authority) and developers will where appropriate be required to survey for these species. The exception to this is where European Protected Species are a feature of European designated sites (SAC or SPA) when Natural England must decide whether the proposal can be allowed to happen. The Countryside and Rights of Way Act 2000, together with the NPPF and guidance in Circular 06/2005, set out the national policy position on protecting and enhancing biodiversity and geodiversity. The Mineral Planning Authority is committed to ensuring that habitats and species both within and outside designated sites are protected.

16.30 Additionally, nationally designated SSSIs are also afforded statutory protection. Circular 06/2005 requires the Mineral Planning Authority to take reasonable steps to further the conservation and enhancement of the features for which sites are of special interest. Developments that would result in the loss or deterioration of non-statutory ancient woodland should also not be permitted. The aims to protect Dorset's geodiversity are set out in the Dorset Local Geodiversity Action Plan (LGAP) and are also incorporated into the Dorset AONB Management Plan. This refers to the use of local building stone.

16.31 To ensure that sufficient information is provided for the Mineral Planning Authority to properly determine a planning application, Policy DM5 requires developers to undertake an assessment of the potential effects of their development proposals on areas of biodiversity and/or geological interest, including those of local importance.

16.32 Some areas of land currently support nationally significant numbers of Annex 1 bird species such as nightjar and woodlark. A decision made by the Secretary of State in 2011[42] will have the effect of encouraging decision-makers to carefully examine the possible effects of a development proposal on such land. Therefore, taking a risk based approach to minerals development within such areas will help to reduce the risk of any significant effects occurring.

41 Habitats and Wild Birds Directives: Guidance on the application of article 6 (4). Defra (2012)

42 See: Town and Country Planning Act 1990 – Section 77. Application by VEOLIA ES Nottinghamshire Ltd. Land at former Rufford Colliery, Rainworth, Nottinghamshire NG21 0ET. Application Ref: 3/07/01793/CMW

16.33 Assessment should identify whether a proposal is likely to result in a significant adverse impact (i.e. resulting in unacceptable loss or harm of species or habitat), and set out clearly the options proposed for avoiding, mitigating or compensating for the adverse impact. The assessment should also include consideration of the extent to which existing habitats on the proposed site have the potential for restoration to high quality habitats which would contribute to achieving the objectives of the Dorset Biodiversity Strategy and whether minerals development would enhance or detract from this restoration potential.

16.34 Not all proposals for minerals development are likely to impact upon biodiversity or geodiversity. Some minor applications for ancillary developments on existing sites, for example, may not present any significant ecological issues and therefore would not necessarily need to be supported with a detailed assessment. However, other applications could relate to small scale development in isolated areas where there is a possibility of an adverse impact upon flora and fauna (noise, disturbance through frequent access to site, etc). It is important that developers engage in early and effective pre-application discussions with the Mineral Planning Authority to establish the potential issues associated with a proposed development.

16.35 The Mineral Planning Authority will be able to provide advice on whether a particular proposal will need to be accompanied by an assessment of the impacts on biodiversity and the level of detail an assessment will need to cover. Where an assessment is required it must incorporate an appropriate ecological survey. As Government policy promotes the need to ensure that biodiversity can adapt to the impacts of climate change, this should be taken into account in any assessment.

16.36 Based on the outcomes of the biodiversity/geodiversity assessment, a sequential approach to managing the predicted impacts of minerals development is required. In the first instance applicants should make every effort to ensure that significant harm to protected species and features is **avoided**, including ensuring the development cannot reasonably be located on any alternative sites that would result in less or no harm. In the absence of alternatives, **mitigation** measures should be designed and implemented in order to reduce the impact to the point where it no longer has significant effects.

16.37 Finally, as a last resort, **compensation** in the form of a legal agreement should be sought where significant harm cannot be avoided or adequately mitigated against. Compensatory measures should result in at least 'like for like' habitat creation either within or in proximity to the proposed development. If significant harm cannot be avoided, mitigated against, or adequately compensated for, planning permission should be refused.

16.38 Where a proposal identifies a need for mitigation and/or compensation, full details of the mitigation and/or compensation measures to be implemented should be incorporated into the design of the proposal. Applicants should make provisions for the need for long term aftercare and management of the site. It is therefore imperative that the ecology of the site has been properly assessed at an early stage, so that mitigation or compensation measures can be presented as part of the planning application.

16.39 Minerals development, followed by appropriate restoration, has the potential to bring positive biodiversity benefits to areas which may not be species rich, or may in some way be degraded. Benefits to a wider area may also be realised through restoration of previously lost habitat linkages. This is an important part of the restoration on minerals sites and is referred to in Chapter 15 of the Minerals Strategy.

Policy DM5 - Biodiversity and geological interest

Proposals for minerals development must not adversely affect the integrity of European or Ramsar or other internationally designated sites either alone or in combination with other plans and projects, unless the tests set out under Article 6(4) of the Habitats Directive are met.

Proposals for minerals development which do not adversely affect the integrity of European or Ramsar sites or other internationally designated sites will only be permitted where adverse impacts on biodiversity and/or geodiversity will be:

i. avoided; or
ii. where an adverse impact cannot be avoided, the impact will be adequately mitigated; or
iii. where adverse impacts cannot be avoided or adequately mitigated, compensation will result in the maintenance or enhancement of biodiversity / geodiversity.

Where possible, proposals should enhance biodiversity and geological interest.

Proposals for minerals development must be accompanied by an objective assessment of the potential effects of the development on features of biodiversity and/or geological interest, taking into account cumulative impacts with other development and the potential impacts of climate change.

In addition, the assessment must have particular regard to the need to protect, maintain and / or enhance sites and species of international and national importance, in accordance with the relevant statutory requirements. It should also consider the potential for existing habitats on the site to be restored to higher quality habitats, during and after mineral working.

The assessment must also demonstrate how the proposal intends to address the need to maintain and/or enhance features of local and regional importance including Sites of Nature Conservation Interest. The proposals should seek to achieve this wherever possible and consistent with viable development.

The Dorset and East Devon Coast World Heritage Site

16.40 In 2001, the Dorset and East Devon Coast was recognised as a World Heritage Site for the Outstanding Universal Value of the coast's geology and geomorphology. The 95 mile stretch of cliffs is the only place in the world where over 185 million years of the Earth's history, including the entire Triassic, Jurassic and Cretaceous geological periods, can be seen along near continuous stretch of coastline, with a number of internationally important fossil localities along its length. The Dorset and East Devon Coast has an outstanding combination of internationally renowned geological and geomorphological features, landforms and processes, and is renowned for its contribution to earth science investigations for over 300 years, helping to foster major contributions to many aspects of geology, palaeontology and geomorphology. This coast is considered by geologists and geomorphologists to be one of the most significant teaching and research sites in the world.

16.41 Government policy[43] requires the Mineral Planning Authority to ensure, as far as is practical, that sufficient levels of permitted mineral reserves are available from outside World Heritage sites. The World Heritage Site Management Plan [44] encourages the establishment of mineral planning policies which afford the highest possible level of protection to the Site and its setting from damaging minerals development. Significant negative impacts on the Outstanding Universal Value of the Dorset and East Devon Coast World Heritage Site must be avoided.

16.42 The area of the Site is already covered by a number of Policies in the Minerals Strategy. The geological importance of the Site is recognised in Policy DM5. On Portland, Policy PD1 seeks to encourage mining as an alternative to surface quarrying of Portland Stone while Policy PD4 specifically refers to the Site in the context of the Review of Old Mineral Permissions (ROMP). Policy DM6 more generally addresses the protection of the Site, its setting and its Outstanding Universal Value.

Policy DM6 - Dorset and East Devon Coast World Heritage Site

Minerals development will not be permitted within the boundaries of the World Heritage Site within Dorset.

Proposals for minerals development outside of the boundary of the World Heritage Site but which could affect the Site must be able to demonstrate that there will not be any impacts on the Outstanding Universal Value or integrity of the Site.

In the case of proposals which could affect the Site's setting, permission will only be granted if any adverse impacts can be mitigated to the satisfaction of the Mineral Planning Authority and on condition that such impacts would not affect the Site's Outstanding Universal Value or integrity.

43 Paragraph 144, NPPF
44 (Dorset and East Devon Coast World Heritage Site Management Plan 2009-2014)

The Historic Environment

16.43 Bournemouth, Dorset and Poole have a diverse historic environment comprising buildings and structures of architectural and historical interest, archaeological remains, areas of historic landscape including heathland, parkland and ancient woodland, conservation areas, registered parks and gardens, the historic character of the wider landscape/ built environment and unrecorded archaeology. In 2010 there were some 1,043 scheduled monuments; 9,931 listed buildings; 239 conservation areas; and 37 historic parks and gardens in the plan area.

16.44 Some features are of national importance, recognised or designated in some way, while others may not be designated but following assessment may be shown to be of national importance. Other elements of the historic environment may be of less than national significance and in some cases without any statutory protection. Together they make an important contribution to creating a sense of place, local identity and distinctiveness.

16.45 The principal objective of Policy DM7 is to ensure that Bournemouth, Dorset and Poole's historic environment is afforded the appropriate level of conservation and enhancement in conformity with national policy. As part of the process of preparing planning applications for new development, assessment (including archaeological and historic landscape assessment where appropriate) should be used by developers to inform the preparation of a mitigation strategy for proposed minerals development.

16.46 Since minerals can only be worked where they exist, their development can lead to a conflict between the provision of essential mineral resources and the protection of the evidence of Bournemouth, Dorset and Poole's past for the benefit of future generations. The Minerals Strategy has an important role to play in both protection of the historic environment and planning for the provision of minerals to restore, repair and protect the historic environment. The use of local stone for the repair/restoration of historic buildings and in conservation areas is actively encouraged.

16.47 Inappropriately designed and managed minerals extraction can result in disturbance to and/or loss of the historic environment. National policy assigns considerable importance and weight to the conservation of designated heritage assets. However, features and aspects of the historic environment do not have to be formally designated to be of national importance. Appropriate consideration is to be given to those elements of the historic environment not designated or of national importance, depending on the result of assessment.

16.48 In order to properly assess the potential impacts upon the historic environment that may result from a proposed development, the Mineral Planning Authority will require developers submitting proposals for new minerals development to undertake an appropriate assessment and/or evaluation which will include:

a. consideration of whether the area proposed for development has the potential to contain previously unknown heritage assets;
b. consultation of the relevant Historic Environment Record (including the Record of other authorities in areas close to the county boundary);

c. provision of a description of the significance of heritage assets (both known and previously unknown) and their settings that may be affected by the proposed development and the contribution of their setting to that significance;
d. carrying out field evaluation where desk-based assessment is insufficient to properly assess interests, or indicates that field evaluation is necessary;
e. consideration of potential adverse impacts on the historic landscape and the settings of the heritage assets.

16.49 Developers will be expected to consult the Mineral Planning Authority's historic environment adviser regarding the scope of the assessment. It is expected that Historic Landscape Characterisation will form a part of the assessment process [(45)]. The Confederation of British Industry have produced a code of practice for mineral developers to apply when planning proposed mineral developments [(46)]. In addition, the Minerals and Historic Environment Forum (a body set up jointly with English Heritage, other mineral sector associations, leading organisations involved with the historic environment and mineral planning authorities) have produced a practice guide setting out clear and practical advice on the archaeological evaluation of mineral development sites [(47)].

16.50 The results of the assessment should be used by developers to prepare a mitigation strategy for the proposed minerals development. Where initial investigations indicate that heritage assets of national importance are likely to be disturbed or affected, developers will be expected to agree to a scheme of preservation in situ or further mitigation measures to take place prior to or concurrently with the minerals development. Where investigations indicate that heritage assets of other than national importance are likely to be disturbed or affected, developers will be expected to agree to a scheme of preservation either in situ or by record or further mitigation measures to take place prior to or concurrently with the minerals development.

16.51 There should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be. Once lost, heritage assets cannot be replaced and their loss has a cultural, environmental, economic and social impact. The significance of a heritage asset can be harmed or lost through its alteration, destruction or development within its setting. Loss affecting any designated heritage asset should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, including scheduled monuments, grade I and II* listed buildings and grade I and II* registered parks and gardens and the World Heritage Site should be wholly exceptional.

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45 Historic Landscape Characterisation is an established technique which can assist in producing an area-based, generalised understanding of how places and landscapes have evolved and how their historic character might be appreciated, protected and where appropriate enhanced. Dorset County Council is currently finalising its own Historic Landscape Characterisation study

46 Confederation of British Industry – Archaeological Investigations Code of Practice for Mineral Operators 1991

47 Mineral Extraction And Archaeology: A Practice Guide (English Heritage June 2008) (http://www.cbi.org.uk/pdf/arch-practice-guide.pdf); see also Minerals Extraction and the Historic Environment (English Heritage March 2008) (http://www.english-heritage.org.uk/publications/mineral-extraction-and-historic-environment/)

Policy DM7 - The Historic Environment

Proposals for minerals development in Bournemouth, Dorset and Poole will only be permitted where it can be demonstrated through an authoritative process of assessment and evaluation that heritage assets and their settings will be conserved in a manner appropriate to their significance. Adverse impacts should be avoided or mitigated to an acceptable level.

Where the presence of historic assets of national significance is proven, either through designation or a process of assessment, their preservation in situ will be required.

Any other historic assets should be preserved in situ if possible, or otherwise by record.

Sustainable Transport

16.52 Mineral workings are often generators of Heavy Goods Vehicle (HGV) traffic, which can lead to adverse environmental impacts such as noise, air pollution, vibration and dust. They can be a road safety hazard for other vehicles, pedestrians and cyclists. These effects are intensified in areas designated for their environmental importance. In addition, lorries used to transport minerals produce carbon emissions that contribute to global warming. The sustainable transportation of minerals between sites for processing or to their end-use destination is therefore an important consideration for managing the impacts of minerals development.

16.53 Operators should consider the most appropriate ways in which to minimise the impacts of HGV traffic from mineral workings, such as through the reduction of transportation distances and the use of rail and water to transport minerals. It is acknowledged that the opportunities for rail and water transportation of minerals may be limited.

16.54 For short distances, such as transport within a quarry or between a quarry and nearby processing plant, the use of short-haul conveyors should be considered. Light weight, movable conveyor systems offer advantages over vehicular transport and can be cost effective on large sites. However if they require more substantial, fixed structures this can add to visual intrusion, noise and light impacts. Conveyors can also raise wayleave issues as well as safety concerns when crossing public roads and footpaths. Conveyors and other non-vehicular transport methods, although offering environmental benefits, can be more costly than road transport and the economic viability of their use will be taken into consideration by the Mineral Planning Authority. As far as possible numbers of mineral movements will be minimised through means such as bulking up of loads and ensuring HGVs enter and exit sites with a full load.

16.55 There may be cases where importation of minerals by road from outside the plan area is either necessary (i.e. the mineral does not exist within the plan area) or appropriate (i.e. the distance to a quarry within the plan area is greater than the distance to a quarry outside the area). However, in general terms importation of mineral by road from outside the plan area is discouraged if it is likely that this will lead to unnecessary generation of CO_2 and/or transport impacts.

16.56 Figure 29 is based on the Dorset Freight Map[48] and indicates the designated road freight network for Dorset, including strategic routes managed by the Highways Agency. Encouraging minerals traffic to use this higher quality network will reduce environmental and safety problems on less suitable roads. Sites will not be encouraged where access is required through residential areas or other sensitive land uses. The Highways Agency does not normally permit new accesses to be established onto the strategic network, and as far as possible developments should seek to utilise existing accesses onto the strategic network.

48 http://www.dorsetforyou.com/freight-map

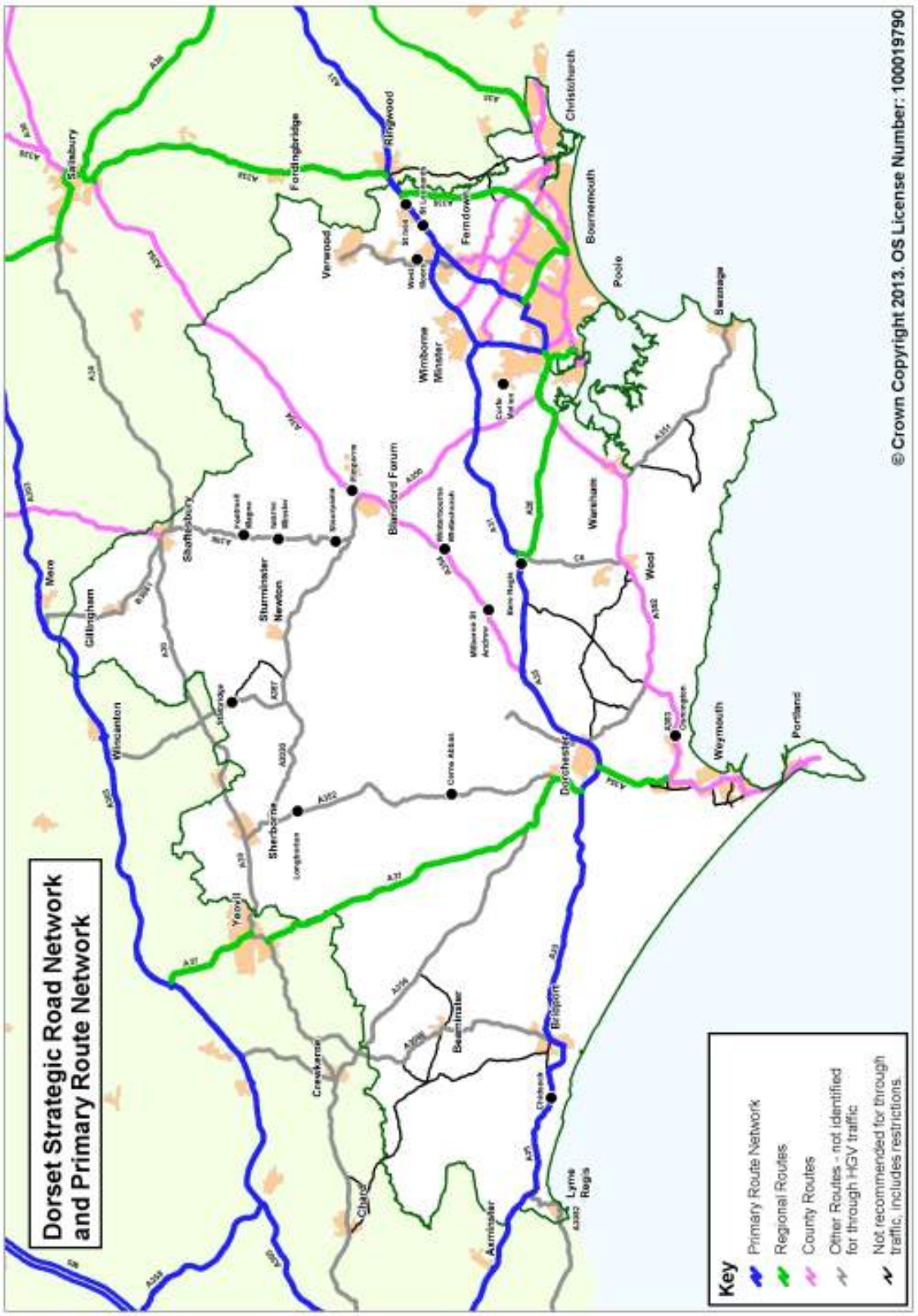

Figure 29 Dorset Strategic Road Network and Primary Route Network

16.57 It is recognised that there are a number of instances where lorry traffic serving quarries is required to use local roads for some distance before accessing the strategic highway network. This is particularly true of Purbeck Stone quarries and other building stone quarries in the north or west of the county. Such sites are generally small in scale and produce few HGV movements. Assessment of all new proposals will include consideration of proximity and linkages to the strategic highway network.

16.58 A comprehensive Transport Assessment (TA) will be required with any planning application where a development is likely to have significant transport and related environmental impacts. It should:

- consider how adverse impacts upon the highway network (and where relevant the local rail infrastructure, cycleways or public rights of way) in the local area can be minimised;
- consider how the potential cross-boundary impacts and cumulative impacts of the development with other local developments can be minimised;
- identify the measures that will be taken to adequately mitigate or compensate for the anticipated impacts of the proposal and to improve accessibility and safety for all travel modes associated with the development;
- identify any mitigation or compensatory works directly related to the development that may need to be funded by the developer in conjunction with the proposal;
- take into consideration the requirements of the Dorset Rural Roads Protocol (see: http://www.dorsetforyou.com/ruralroads).

16.59 In some cases a development will have limited transport implications, for example where a proposed development is expected to generate relatively low numbers of trips or traffic flows, with minor transport impacts. In these cases a full TA may not be required and a simplified Transport Statement can be produced instead. In some cases no formal assessment will be required at all. Government guidance on this matter is detailed within the document 'Guidance on Transport Assessment', DfT, March 2007.

16.60 Pre-application discussions with the Mineral Planning Authority will be critical to establish the scope of assessment required when considering the transport impacts of minerals development proposals. Transport Assessments should consider the impacts of the minerals development upon all modes of travel likely to be affected by the development. Where there is likely to be significant adverse impacts that cannot be avoided or mitigated, legal agreements will be required to protect and where necessary make improvements to the relevant network.

16.61 Where there are significant impacts from minerals transportation, operators of mineral sites will establish mineral site transport plans in consultation with local communities. These are intended to reduce the impact on nearby residents and promote the sustainable transportation of minerals. These plans should deal with matters such as routing (avoiding weight restricted roads), offsite parking, hours of movement, considerate driving, and complaints procedures. The establishment of mineral site transport plans should be incorporated into pre-application discussions and/or planning agreements and as part of the mitigation measures outlined in Transport Assessments accompanying proposals for minerals development. Many impacts can be controlled through use of appropriate conditions attached to a permission. In addition, although routing agreements can be difficult to enforce, developers are encouraged to consider routing restrictions controllable by agreement to minimise the potential transport impacts of new minerals developments.

16.62 There may be cases where the existing road network is not adequate for the amount of lorry movements associated with a minerals development. This could result in potential damage to the road structure and adverse impact on residential amenity. Where this is the case, it may be possible for the highway authority to seek costs for maintaining the highway as a result of road damage caused by excessive weight or other extraordinary traffic [(49)].

16.63 Section 278 of the Highways Act allows a highway authority to seek costs from a developer, where the developer would derive a special benefit for necessary modifications to be made to a strategic road network as part of the highway authority's proposed works. Also, Section 106 of the Town and Country Planning Act 1990 allows a local planning authority to enter into an agreement with developers for the purposes of restricting or regulating a development, including providing for payments of money towards mitigation measures to achieve road network improvements. Section 106 also allows a local planning authority to receive a unilateral undertaking from developers. It may also be possible to limit vehicle sizes in certain circumstances, for example when a minerals development is located in a sensitive area such as an AONB. Policy DM10 also refers to legal agreements relating to transport matters.

16.64 Mineral developments can also impact upon other transport and recreational routes such as public rights of way, including footpaths, bridleways and cycle-ways. It is important to safeguard, and where possible improve, these valued assets for their continued enjoyment. Some routes may require temporary diversion for the duration of the development or a permanent diversion where this would be preferable to the reinstatement of the original line.

49 Section 59 of the Highways Act, 1980

Policy DM8 - Transport and Minerals Development

Minerals development which could have an adverse impact as a consequence of the traffic generated by it will only be permitted where it is demonstrated, through a Transport Assessment that:

a. a safe access to the proposed site will be provided;
b. there will be no adverse impact on the Strategic, Primary and/or Local road network:
c. developers will provide the funding for any highway and transport network improvements necessary to mitigate or compensate any adverse impact on the safety, capacity and use of a highway, railway, cycleway or public right of way and that these improvements will be delivered in a timely manner; and
d. the proposal, where possible, has direct access or suitable links with the Dorset strategic highway network or primary route network.

Sustainable transportation should be used where possible and practical, including through minimising distance travelled by road and maximising the use of transport means such as rail, water, pipelines or conveyor belts to transport minerals where practicable and environmentally acceptable. Mineral site transport plans should be established.

Airfield safeguarding

16.65 The risk of bird strike is important when considering the afteruse of mineral workings. Airfield Safeguarding Areas are designated within 13km (8 miles) of an airfield, where the owner or operator of civil or military aerodromes are required to be consulted where restoration is proposed through landfill or to a wetland habitat in order to consider the potential bird strike hazard.

16.66 Restoration which enhances biodiversity through creation of wetland habitat may lead to the creation of habitats that attract birds. In the vicinity of an airport this is potentially very dangerous. Careful planning can ensure that it will be possible to enhance biodiversity in this way without possibly contributing to a bird-strike hazard. Examples include the creation of reed beds, instead of open water, which generally do not attract the flocking birds that cause a bird strike hazard, and also the use of smaller expanses of water, such as fragmented ponds.

Policy DM9 - Extraction and restoration within airfield safeguarding areas

Proposals for minerals development partly or completely within the following Airfield Safeguarding Areas will only be permitted when the applicant can demonstrate that the proposed extraction, restoration and afteruse will not give rise to new or increased hazards to aviation:

a. Bournemouth Airport
b. Yeovilton Aerodrome

Legal Agreements

16.67 Any development can put pressure on and potentially over-stretch existing infrastructure and services. Measures can be put in place so that the infrastructure and services needed are delivered hand in hand with the development. The way that infrastructure and services are secured (or contributions towards their provision are made) is generally through the use of a legally binding agreement, known as a planning obligation. The NPPF acknowledges the importance of planning positively for the infrastructure required in the area. This might include the infrastructure required to support development, taking into account costs, sources of funding, responsibilities and timescales for delivery, and possible gaps in funding.

16.68 Such a binding planning obligation may be provided to the Mineral Planning Authority by the applicant or developer (or any others that may have an interest in the land) under Section 106 of the Town and Country Planning Act 1990, in order to make a proposed development acceptable. This can be done unilaterally or through agreement,when it is known as a Section 106 agreement. The obligations created normally run with the land so that they can still be enforced by the planning authority if the land changes ownership.

16.69 National policy advises that planning obligations can make otherwise unacceptable development acceptable. A planning obligation normally requires some action to be taken, or it can be used to impose restrictions. Paragraph 204 of the NPPF sets out the tests which must be met to make a planning obligation acceptable. The Community Infrastructure Levy Regulations 2010 incorporate these tests, requiring a planning obligation to be:

a. necessary to make the proposed development acceptable in planning terms
b. directly related to the proposed development
c. fairly and reasonably related in scale and kind to the proposed development

16.70 The Community Infrastructure Levy (CIL) was introduced in the Planning Act 2008. It is a levy on development intended to provide funding for infrastructure to serve development across the area of the charging authority. Regulations governing the application of CIL came into effect on 6 April 2010. Liability to pay CIL derives from the grant of planning permission. Following the introduction of CIL, the use of Section 106 Planning Obligations is to be scaled back to site specific measures.

16.71 CIL does not apply uniformly to all development. The definition of what it applies to is narrow and relates only to the creation of a new building or alteration to an existing building and there are exemptions. CIL charges could not be applied across the entire site area of a proposed quarry. Securing funding to offset the impacts of a quarry is more likely to be achieved through other means, such as Section 106 agreements. To avoid duplication, the charging authority cannot collect contributions towards the same infrastructure through both CIL and Section106.

16.72 Future use of planning obligations in connection with minerals planning is not affected by CIL unless the obligation relates to measures for which CIL is being already charged or is capable of being charged. This is to avoid double counting in respect of any obligations.

16.73 The Planning Act 2008 does not allow for County Councils to be a charging authority although, in the context of minerals planning, County Councils would be the collecting authority. Where CIL is applicable in an area in relation to minerals and waste development, CIL will need to be collected by County Councils and returned to the relevant charging authority. CIL revenue can be used for infrastructure needed to support minerals development. Mineral development however rarely gives rise to new infrastructure requirements and where it does, it is likely to be of a specific nature related to transport matters that are best dealt with through the existing system under section 106 of the 1990 Town and Country Planning Act.

16.74 Since 2007 minerals developments in Purbeck have, where appropriate, contributed towards transport improvements identified in the Purbeck Transport Strategy to mitigate the transport impacts of mineral development. After CIL is introduced these improvement schemes will benefit from CIL funding. Whilst minerals development may not be required to pay CIL, minerals development may be required to contribute though a specific agreement towards this infrastructure as part of the identified need.

Policy DM10 - Planning Obligations

In cases where:

a. restrictions upon, or measures required to mitigate the impacts of, the winning or working or handling of minerals and the recycling of aggregates are essential for proper planning; and
b. such measures lie outside the normal scope of conditions which could be attached to the planning permission,

the Mineral Planning Authority will seek to establish planning obligations with the developer and landowner through unilateral undertakings or legal agreements.

Review of Old Mineral Planning Permissions

16.75 The process of reviewing old mineral planning permissions is intended to bring old minerals permissions up to modern environmental standards by attaching new planning conditions. The Environment Act 1995 introduced a requirement on mineral planning authorities to undertake a programme of 'Initial Review' of all mineral planning permissions granted between 30 June 1948 and 22 February 1982, followed by the operation of a programme of 'Periodic Review' and updating of all mineral planning permissions on a 15 year cycle.

16.76 These Review programmes give the Mineral Planning Authority the opportunity to ensure as far as possible that conditions attached to mineral planning permissions remain up-to-date and relevant, without significantly infringing existing working rights[(50)].

16.77 During Periodic Reviews, an updated set of conditions must be submitted by the operator for active sites. Applications may be subject to Environmental Impact Assessment. The Mineral Planning Authority may only in exceptional circumstances impose conditions which restrict working rights. If no submission is received by the date stipulated by the Mineral Planning Authority, the mineral permission ceases to have effect, although restoration and aftercare conditions still apply.

16.78 The Mineral Planning Authority will determine applications made under the Review of Old Mineral Planning Permissions in accordance with the Development Management policies and the Restoration policies contained in this plan. It is acknowledged that it may not always be possible to achieve standards that would be expected from new minerals development proposals, and therefore to be wholly consistent with all elements of the policies, however this will be the aim.

Policy DM11 - Review of Old Mineral Planning Permissions

The Mineral Planning Authority will, through the determination of applications made under the Review of Old Mineral Planning Permissions legislation, seek to achieve up to date and relevant working and restoration standards achievable by the imposition of appropriate planning conditions and, where necessary, through voluntary agreements and planning obligations.

50 MPG 14 (Review of Mineral Planning Permissions) outlines the manner in which Initial and Periodic Reviews are to be undertaken.

17 Implementation and Monitoring

17 Implementation and Monitoring

17.1 Development plans should set out how they are going to be delivered and their performance measured. This section outlines proposed mechanisms for delivering the Minerals Strategy, collecting data and a framework for monitoring its effectiveness. This section also considers the management and enforcement of permitted minerals development.

Implementation

17.2 The Mineral Planning Authority will not implement the strategy alone. Many aspects of the strategy will require action by a range of other stakeholders working in partnership. The document's role is to provide a clear and robust framework for mineral development in order that investment and action can be co-ordinated and geared to efficient and effective delivery. The monitoring framework set out below states, for each policy, who the key implementation partners are likely to be.

17.3 Due to the specific nature of mineral development all sites that come forward within the Plan period will be delivered through private commercial funding. To build confidence that the Minerals Strategy will be deliverable the Plan has involved the industry, landowners, adjoining mineral planning authorities and other stakeholders from the start and has been influenced by their views on what can and is likely to be delivered. This has involved individual meetings and site visits with industry and their representatives and a more formal 'call for sites' exercise.

17.4 It has been possible to reach general consensus with most of the minerals companies that the strategy put forward is deliverable and that the policies will enable the continued extraction of minerals throughout the plan period. However, where there have been difficulties reaching firm conclusions and agreement, these are acknowledged within the relevant sections of the Plan. The key issues of debate are also set out. The Mineral Planning Authority is committed to maintaining good relationships with the key delivery partners and to keep up to date with developments, industry aspirations and issues that could have an impact on the delivery of this strategy.

Collection of Information for Monitoring Purposes

17.5 Aggregates companies are required to return data on primary aggregate production to the Mineral Planning Authority annually. In addition, every four years a major national survey is undertaken on behalf of the Government to collect data on aggregate production, distribution and permitted reserves. These requirements ensure that the Mineral Planning Authority maintains up to date figures in relation to aggregates for use in monitoring.

17.6 For other minerals like Portland and Purbeck Stone and ball clay there are no such formal mechanisms in place. Figures are currently collected on an ad hoc basis as needed. Whilst this approach has enabled an adequate evidence base to be developed to support the Minerals Strategy, it has highlighted the need for a more formal way of collecting figures to consistently monitor the success of proposals and policies in the future.

17.7 Policy MON1 sets out the intention of the Mineral Planning Authority to work with minerals/waste operators to obtain annual production figures to ensure that effective monitoring can take place over the plan period. Where new permissions are granted, the Mineral Planning Authority will seek to reach agreement with operators over how best to obtain this information on a regular basis. Planning conditions can be used to provide a consistent basis for obtaining information, for example where output needs to be regulated to minimise impacts, but in some instances the use of conditions may not be suitable and so alternative arrangements will be required. It is also important to obtain information about existing permitted operations to ensure the monitoring data is comprehensive. Information considered confidential will only be published in an aggregated form with other sites in order to ensure commercially sensitive figures are not released.

Policy MON1 - Plan, Monitor and Manage

The Mineral Planning Authority will work with local authorities in and around Bournemouth, Dorset and Poole, the minerals and waste industry, regulatory authorities, landowners, local communities, environmental bodies, the Aggregates Working Party and Government departments to plan, monitor and manage minerals development. To achieve this the Mineral Planning Authority will seek a commitment from the minerals industry to supply annual production figures for minerals and recycled aggregates.

The Monitoring Framework

17.8 The strategy is based on the evidence available at the time of preparation. However, the plan covers a period of some 20 years. The information that has informed its preparation will change over time and there will be a need to monitor what is happening and respond to change in the most appropriate way.

17.9 The Mineral Planning Authority will publish monitoring reports to quantify progress in delivering the strategy against the targets and indicators set out in this plan. This will also enable it to assess what impact the policies are having and whether they need adjusting or replacing through a formal review of the Minerals Strategy.

17.10 Monitoring will concentrate on key issues which the plan is expected to influence. A set of key indicators and targets have been developed to allow the direct and indirect effects on the plan's strategic objectives to be monitored. The key indicators have come directly from the monitoring section of the Minerals Strategy Sustainability Appraisal. They include Core Output Indicators recommended for local authorities in monitoring performance.

17.11 The policies and proposals will also be monitored in terms of their performance against key objectives and targets included in the Sustainability Appraisal, to assess their contribution towards promoting sustainable development. The full Sustainability Appraisal is a separate document that should be read alongside the strategy.

17.12 If monitoring indicates that targets have been missed consideration will need to be given to the cause and if this failure is significant. If this is the case the strategy/policy may need to be reviewed and corrected. It may be possible to review certain policies, sections or chapters of the Minerals Strategy rather than formally reviewing the entire Plan. Potential issues that may cause the failure of policies are highlighted within the monitoring framework. However, this list is not exhaustive.

17.13 The monitoring framework for the Minerals Strategy is set out in the table below.

Enforcement of Planning Control

17.14 In addition to monitoring the performance of the Minerals Strategy, the Mineral Planning Authority is also responsible for monitoring the progress of Minerals and Waste Management/Disposal sites and the enforcement of planning permissions imposed on those sites.

17.15 Once an application has been granted the monitoring and enforcement team monitor sites to ensure that operations comply with conditions attached to planning permissions. The Town and Country Planning (Fees for Applications and Deemed Applications) (Amendments) (England) Regulations 2006 brought in a charging system for monitoring mining and landfill sites. This places a requirement on the Mineral Planning Authority to undertake up to eight site visits per year to active sites, depending on their size, type and complexity of conditions.

17.16 Within its monitoring report the Mineral Planning Authority provides details on the number of chargeable site visits that were undertaken in the reporting period the number of Planning Contravention Notices, Enforcement Notices, Stop Notices and Temporary Stop Notices, or Breach of Condition Notices that were issued

Table 2 Minerals Strategy Monitoring Framework

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
The Strategy for Minerals Provision				
Policy SS1: Presumption in Favour of Sustainable Development				
Number of Applications refused	All permissions consistent with this policy reflecting the presumption in favour of sustainable development	This is a procedural policy, all implementation partners listed within this famework will contribute to sustainable development.	Any approval not consistent with this policy and not reflecting sustainable development	This is a procedural policy and there are no issues identified that may affect implementation
Policy SS2: Identification of Sites in the Mineral Sites Plan *(Contributes towards Plan objective 1)*				
Permission granted for a non-allocated site	All permissions consistent with this policy with permissions being for sites allocated within the Mineral Sites Plan wherever possible	Minerals industry Marine Management Organisation	Any approval not consistent with this policy	This policy requires new sites to be bought forward by the minerals industry/ landowners for appraisal and those sites being considered acceptable for inclusion in the Mineral Sites Plan
Climate Change				
Policy CC1 - Preparation of Climate Change Assessments (*Contributes towards Plan objectives 4 and 5)*				

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Applications accepted without a comprehensive Climate Change Assessment Applications where mitigation is incorporated into the scheme Conditions requiring mitigation measures	All applications to be supported by a climate change assessment or a statement to confirm that an assessment is not needed	Minerals industry	Any approval not consistent with this policy Should applications not include climate change mitigation measures, where these are appropriate, discussions will be undertaken with Development Management (DM) officers to consider the reasons why and any potential issues this raises with the implementation of policy.	Where changes to national policy on climate change result in the Plan conflicting with this policy there would be a need for review.

The Overall Strategy for Minerals Provision

Policy RE1 - Production of Recycled Aggregates *(Contributes to Plan objectives 1 and 3)*				
Number of applications for recycled aggregate facilities approved or refused Amount of recycled aggregate	Increase the production of recycled aggregate, in order to reduce the need for primary aggregate	Minerals industry Waste industry	If no applications for new recycling operations emerge this policy will need	In the past it has been difficult to collect and therefore monitor recycled material with the reliance on

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
produced, as a percentage of overall aggregate production/sales	Improved collection of recycling figures		reviewing. The Mineral Planning Authority may need to be proactive and identify specific sites	ad hoc local surveys of the waste industry. Identification of site specific allocations relies on the minerals and waste industry bringing forward sites for appraisal.
Policy AS1 - Provision of Sand and Gravel *(Contributes towards Plan objective 1)*				
Total quantity of sand and gravel as permitted reserves Total quantity of sand and gravel identified within the Mineral SitesPlan Actual sales/production of sand and gravel annually	To identify sufficient sites within the Mineral Sites Plan to deliver production at a level of 9.36 million tonnes (average of 1.58 million tonnes) of sand and gravel per annum -	Minerals industry Waste industry SW Aggregates Working Party (AWP) Marine Management Organisation	If it becomes clear that it will not be possible to meet the level of provision at an acceptable environmental cost, from within the resource areas, this policy will need revisiting. If the level of sales consistently exceeds the level of provision further sites may be needed and/or the reliance on the criteria and	Implementation during the early part of the plan period is dependant on existing permitted sites continuing to be worked to their full extent. As sites are exhausted this policy will require new sites to be identified. This relies upon the minerals industry and landowners bringing forward sites for appraisal.

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
			policies in the Minerals Strategy.	
Policy AS2 - Landbank Provision *(Contributes towards Plan objective 1)*				
Level of permitted reserves of each material and current landbank figure	Maintenance of a 7 year landbank through mineral permissions	Minerals industry SWAWP	If it is clear that applications are not being granted then the size of the landbank will fall and the policy may need revising.	Relies on the minerals industry and landowners bringing applications forward.
Policy AS3 - Crushed Rock *(Contributes towards Plan objective 3)*				
Whether or not any new sites for crushed rock are permitted Actual sales/production of crushed rock annually	No permissions granted for the processing and production of crushed rock	Minerals industry SWAWP	Landbank of less than 10 years	A landbank of less than 10 years would identify the need for additional supply of crushed rock and a review of policy.
Policy AS4 - Wharves and Depots *(Contributes towards Plan objectives 1 and 5)*				
Permissions for other forms of development at existing rail depots and wharfs which would prevent or prejudice the current use -	Establishment of new wharf or depot sites No net loss of land at existing wharves and depots	District/Borough Councils Minerals Industry Port Authorities Network Rail	If new information identified the need for a wharf or depot there may be the need to review the policy and consider more	Proximity of minerals workings to transport infrastructure, feasibility of moving minerals by rail/water due to

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
application of safeguarding policy New rail depots and aggregate wharves, and the expansion and/or modernisation of existing sites.	No net decreases in percentage share transported by rail/water	Landowners Marine Management Organisation	proactive policy guidance and the identification of site specific allocations	location of markets may hinder opportunities. In addition, identification of potential sites will rely on landowners and transport organisations bringing forward sites.
Policy AS5 - Borrow Pits *(Contributes to Plan objectives 1, 3 and 5)*				
Number of permissions for Borrow Pits	Ensure proposals have minimum detrimental impact All permissions consistent with all the criteria in this policy	Development industry Minerals industry	Any approval not consistent with this policy	None identified
The Strategy for Ball Clay Extraction				
Policy BC1 - Provision of Ball Clay *(Contributes towards Plan objective 1)*				
Tonnage of material identified within the Mineral Sites Plan Total quantity of ball clay as permitted reserves	To maintain an adequate supply of all grades of ball clay	Minerals industry specifically - Ball Clay industry	If it is clear that permitted reserves are unlikely to be sufficient to maintain an adequate and steady supply then the policy	Investigating specific mineral resources is reliant on third party investigations It may not be possible to identify

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Actual sales/production of ball clay annually			may need to be reviewed	sufficient sites in the Mineral Sites Plan. Therefore the Minerals Strategy contains criteria within policies to guide planning applications. Due to the sensitive location of the ball clay resource delivery of this strategy will rely on proposals demonstrating that there would be no effects on designations unless the provisions of Article 6(4) of the Directive apply and there are no feasible alternatives, there are imperative reasons of overriding interest and compensatory measures are secured.
Policy BC2 - Ball Clay Transportation *(Contributes towards Plan objective 5)*				

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
The extent to which any alternative means of transport to and from Furzebrook are utilised	Consideration of alternatives to the bulk transportation of minerals by road in applications. Applications including an increase in transportation to be accompanied by a statement of sustainable transport options.	Minerals industry specifically - Ball Clay industry	Any approval not consistent with this policy	None identified
Policy BC3 - Extraction of Sand and Gravel in association with Ball Clay within the AONB (*Contributes towards Plan objective 1 and 2)*				
Number of permissions and allocations within the Mineral Sites Plan for the extraction of sand and gravel in association with ball clay working within the AONB which are not consistent with the policy.	All permissions consistent with this policy	Ball Clay Industry Aggregates industry Dorset AONB Partnership	Any approval for large scale or major extraction of sand and gravel, in association with ball clay,within the AONB would be contrary to this policy. The need for policy review may be necessary.	None identified
The Strategy for Purbeck Stone Extraction				
Policy PK1 - Provision of Purbeck Stone *(Contributes towards Plan objective 2)*				

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Level of output of Purbeck Stone	Sites identified in the Mineral Sites Plan to meet requirement of 102,000 tonnes (an average of 20,000 tpa).	Minerals industry - specifically Purbeck Stone operators	Significant increase in output may require a policy review	National Trust restrictions may have an impact on the delivery of this policy. If this becomes an issue when identifying sites, discussions with the NT will be necessary. Mineral Planning Authority lack the detailed geological information and financial resources to investigate specific mineral resources - reliant on third party investigations Sites beyond those in the Mineral Sites Plan may be needed, which it is not possible to prescribe at this time.
Policy PK2 - Considerations for Purbeck Stone Extraction *(Contributes towards Plan objectives 4 and 5)*				

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Grant of permission from outside the Area of Search	Permitted sites consistent with the policy criteria	Minerals industry - specifically Purbeck Stone operators	If sites are being permitted or allocated from outside the Area of Search, consideration may need to be given to whether the identified area remains appropriate - e.g. new evidence that may require a revision to the identified area or an exception to the policy is unlikely to be repeated?	Identification of potential sites will rely on landowners bringing forward sites.
Policy PK3 - Service Areas *(Contributes to Plan objective 5)*				
Number of conditions linked to site improvements Net change in the number of service areas	No net increase in number of service areas	Minerals industry - specifically Purbeck Stone operators	Approval for any additional service area Advances in technology	None identified
Policy PK4 - Crushing of Purbeck Stone *(Contributes towards Plan objectives 3 and 5)*				
Conditions attached to permissions restricting crushing activity	Crushing only in line with exceptional circumstances outlined	Minerals industry - specifically Purbeck Stone operators	Any approval not consistent with this policy Any unexpected and exceptional need for	None identified

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
			crushed rock could highlight a need for review	
Policy PK5 - Importation of stone from Outside Purbeck *(Contributes towards Plan objective 5)*				
Number of permissions for the processing, storage and resale of imported stone and total tonnage permitted	No permissions contrary to policy for storage and resale of imported stone Importation of stone for processing should be in keeping with current levels	Minerals industry - specifically Purbeck Stone operators	Any approval not consistent with this policy A significant rise in the amount of imported stone permitted	None identified
The Strategy for Portland Stone Extraction				
Policy PD1 - Underground Mining and High Wall Extraction of Portland Stone *(Contributes to Plan objective 2)*				
Number of underground/high wall mines permitted Quantity of reserves permitted for surface quarrying relinquished	All permissions consistent with this policy Relinquishment of areas most sensitive surface quarrying Improved restoration schemes	Minerals industry - specifically Portland Stone operators	Any approval not consistent with this policy	Relies on the minerals industry bringing forward sites for approval. Currently only one operator is investing in technology suitable for mining.
Policy PD2 - Surface quarrying of Portland Stone *Contributes to Plan objective 5)*				

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Number of refusals issued and permissions granted for new quarries on Portland Quantity of reserves relinquished	No permission for surface extraction unless environmental improvements would be achieved	Minerals industry - specifically Portland Stone operators	Any approval for the opencast extraction of Portland Stone where there are no environmental improvements secured	None identified
Policy PD3 - Relinquishment of Permission *(Contributes to Plan objective 5)*				
Extent of areas where planning permission is relinquished from within and outside of areas identified as preferred for relinquishment Mechanisms through which this is secured	Reduce surface quarrying and extraction from the cherty series from those areas identified as sensitive	Minerals industry - specifically Portland Stone operators	Any approval not consistent with this policy	Relies on voluntary agreement of the minerals industry to leave sensitive areas unworked.
Policy PD4 - Minimising Environmental Impacts of existing permissions *(Contributes to Plan objectives 3 and 5)*				
Number and nature of conditions imposed through the Review of Old Mineral Planning Permissions (ROMP) process originating from the application of this policy, that	ROMP applications determined in accordance with this policy	Minerals industry - specifically Portland Stone operators	ROMP determined without securing the improvements set out	None identified

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
will bring about environmental improvements				
Policy PD5 - Restoration of Sites on Portland *(Contributes to Plan objectives 4 and 5)*				
Number of restoration schemes secured that address the issues covered by this policy	All schemes consistent with this policy in terms of achieving a positive outcome from the restoration of former workings	Minerals industry - specifically Portland Stone operators	If it appears that restoration schemes are not achieving the criteria set out it may become necessary to prepare an SPD dealing specifically with restoration of existing sites on Portland.	None identified
The Strategy for Building Stone Extraction				
Policy BS1 - Building stone quarries *(Contributes to Plan objective 2)*				
Number of sites identified in the Mineral Sites Plan and/or new permissions for building stone quarries or extensions to existing quarries	No specific target production/sales figure, monitor to assess future need Identify specific sites in the Mineral sites Plan , as appropriate.	Minerals industry District/Borough Councils	Any approval not consistent with this policy	Safeguarding policies will be of key importance to the delivery of this policy
The Strategy for Hydrocarbons				
Policy HY1 - Proposals for Exploration and Appraisal *(Contributes towards Plan objectives 1 and 6)*				

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Number of permissions granted in accordance with the policy	All permissions consistent with policy	Minerals industry	Any approval not consistent with this policy	None identified
Policy HY2 - Proposals for Production Sites and Ancillary Development *(Contributes towards Plan objectives 1 and 5)*				
Number of permissions granted in accordance with the policy Facilities permitted that sit within an agreed overall framework	All permissions consistent with policy All frameworks agreed	Minerals industry	Any approval not consistent with this policy	None identified
Policy HY3 - Transportation of Hydrocarbons *(Contributes towards Plan objective 5)*				
Number of developments permitted that use pipelines for the transportation of hydrocarbons	All developments use pipelines	Minerals industry	It may be necessary to review this policy if the percentage of developments not using pipelines is significant	None identified
Policy HY4 - Decommissioning and Restoration of Production Facilities and Ancillary Development (*Contributes towards Plan objective 4)*				
Conditions attached to permissions for production sites requiring the submission of a decommissioning	Well sites and facilities are restored promptly. Decommissioning and restoration is in accordance	Minerals industry	Permission granted with no requirement for the submission of a	None identified

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
strategy and restoration scheme.	with a strategy agreed by the Mineral Planning Authority.		decommissioning/ restoration strategy.	
Policy HY5 - Underground Gas Storage *(Contributes towards Plan objectives 1 and 5)*				
Permissions granted and refused for underground gas storage	All permissions consistent with this policy	Minerals industry	Any approval not consistent with this policy. If it is deemed unlikely that any further applications will be received for underground gas storage it may be appropriate to delete this policy	None identified
Other Minerals				
Policy IS1 - Industrial Sand (Contributes towards Plan objectives 1 and 5)				
Total quantity of industrial sand as permitted reserves Total quantity of industrial sand identified within the Mineral Sites Plan.	Maintenance of a 10 year landbank through mineral permissions, particularly extensions.	Minerals industry SWAWP	If it is clear that the identified need is unlikely to be delivered then the size of the landbank will fall and the policy may need revising.	This policy requires new sites to be bought forward by the minerals industry/ landowners for appraisal and those sites being considered acceptable for

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Actual sales/production of industrial sand annually				inclusion in the Mineral Sites Plan Monitoring may be challenging as production data may be confidential at a site level.
Safeguarding				
Policy SG1 Minerals Safeguarding Area *(Contributes towards Plan objectives 1, 3 and 6)*				
Number of applications refused/objections made on safeguarding ground or approved with prior extraction	No sterilisation of economically important mineral resources	District/Borough Councils Adjoining Authorities Minerals Industry Development Industry	Any sterilisation of economically important mineral resources Safeguarding areas are vital to the delivery of the Minerals Strategy in order to prevent development that may prejudice future mineral working.	Delivery will require close working with district/borough councils to protect minerals resources and allow future extraction to take place. Ensuring up-to-date proposals map. May lack detailed information to investigate fully resources - reliant on third party data.
Policy SG2 - Mineral Consultation Area (C*ontributes towards Plan objectives 1, 3 and 6)*				

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Number of consultations undertaken Number of developments without prior extraction of minerals resources	District/Borough Councils to consult Dorset County Council over all proposals within or partly within MCA No sterilisation of economically important mineral resources	District/Borough Councils Adjoining Authorities Minerals Industry Development Industry	Any sterilisation of economically important mineral resources.	Delivery will require close working with district/borough councils to protect minerals resources and allow future extraction to take place. Ensuring up-to-date proposals map
Policy SG3 - Safeguarding of Mineral Sites and Facilities *(Contributes towards Plan objectives 1, 3 and 6)*				
Number of applications having an adverse effect on safeguarded minerals sites or facilities	No negative impacts on existing minerals operations	District/Borough Councils Bournemouth and Poole Authorities Adjoining Authorities Minerals Industry Development Industry	District/Borough Councils not consulting the County Council over relevant proposals.	Delivery will require close working with district/borough councils to protect sites and facilities
Restoration				
Policy RS1: Restoration, aftercare & afteruse of minerals development *(Contributes to Plan objective 4)*				

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
The completion of a Restoration Supplementary Planning Document Area of land achieving habitat creation and/or delivering objectives of Biodiversity Action Plan (Where information is available) % of minerals development planning applications compliant with the requirements of the policy	100% of applications/ permissions consistent with this policy A Supplementary Planning Document on restoration to be completed in order to provide detailed guidance on restoration	Minerals industry Internal specialists inc Ecologist and Landscape Architect Local Nature Partnership	Any approval not consistent with this policy	If an SPD is not produced there may be implications for site restoration, however as specific guidance for the management of the landscape types of the county have been produced these should help provide advice. The Dorset Biodiversity Strategy and other local strategies should also be used to guide development in the absence of an SPD.
Policy RS2: Retention of Plant, Machinery and Ancillary Development (Contributes to Plan objectives 1 and 4)				
Permissions granted or refused for the retention of plant and machinery	100% of applications/ permissions consistent with this policy	Minerals and Waste Industry Internal specialists inc Ecologist and Landscape Architect Local Nature Partnership	Any approval not consistent with this policy	None identified

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Policy RS3: Establishment of local liaison groups *Contributes to Plan objective 4 and 5)*				
Number/ proportion of consents where a local liaison group has been established.	All new mineral extraction permissions to have considered and where appropriate established local liaison groups	Minerals industry Local communities	If a significant proportion of new mineral sites do not have a local liaison group, discussions will be necessary with Development Management and possibly with the minerals industry to establish why.	Establishment of liaison groups needs the commitment of the minerals industry and local communities.
Development Management				
Policy DM1: Key criteria for sustainable minerals development *Contributes towards Plan objectives 1, 2 and 5)*				
% of minerals development planning applications compliant with the requirements of the policy	100% applications/ permissions consistent with this policy in order to deliver the key objectives of the Plan	Minerals industry Various environmental bodies & Internal specialist Delivered through Development Management Team Local Nature Partnership	Any approval not consistent with this policy	Identification of mitigation may be essential to the implementation of this policy and the delivery of the Plan
Policy DM2: Managing the impacts on Amenity *(Contributes towards Plan objective 5)*				

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
% of minerals development planning applications compliant with the requirements of the policy	100% of applications/ permissions consistent with this policy	Minerals industry Various environmental bodies & Internal specialist Local Nature Partnership	Any approval not consistent with this policy through failing to meet the criteria This policy will apply when development falls below the EIA threshold	Environmental Impact Assessment Regulations require an assessment of significant environmental effects of certain developments and therefore will highlight specific impacts that need to be assessed - matter for the Mineral Sites Plan Identification of mitigation may be essential to the implementation of this policy and the delivery of the Plan
Policy DM3: Managing the impact on surface water and groundwater resources *(Contributes towards Plan objective 5)*				
Number of proposals including a Flood Risk Assessment and/or incorporating Sustainable	100% applications/ permissions consistent with this policy in order to protect and enhance the water environment	Minerals industry Environment Agency Water Companies	Any approval not consistent with this policy	Likely to require the input from external specialist consultees such as the

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Urban Development System % of minerals development planning applications compliant with the requirements of the policy				Environment Agency and other infrastructure provides
Policy DM4: Protection and enhancement of landscape character & the countryside *(Contributes towards Plan objective 5)*				
Number of proposals including an assessment of the adverse impacts upon landscape character % of minerals development planning applications compliant with the requirements of the policy	100% applications/ permissions consistent with this policy	Minerals industry DCC Landscape Officer AONB Management Teams	Any approval not consistent with this policy	Documents such as the Dorset Landscape Character Assessment, AONB Management Plan and the South East Dorset Green Infrastructure Strategy should provide further guidance to help delivery of this policy.
Policy DM5: Biodiversity and Geological Interest *(Contributes towards Plan objective 5)*				
Number of proposals including an assessment of the biodiversity and geodiversity interest.	100% applications/ permissions consistent with this policy in order to protect,	Minerals industry Various environmental bodies, including	Any approval not consistent with this policy	Delivery of this strategy will rely on proposals demonstrating that there would be no unacceptable

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Number of applications where biodiversity benefits are identified % of minerals development planning applications compliant with the requirements of the policy	maintain and / or enhance sites and species of international and national importance	Natural England and the Local Nature Partnership DCC Ecologist		effects on designations. This will not be met if significant adverse impacts cannot be mitigated. Documents such as the Dorset Local Geodiversity Action Plan should provide further guidance to help delivery of this policy. Identification of mitigation may be essential to the implementation of this policy and the delivery of the Plan - where mitigation cannot be identified sites cannot be developed.
DM6: Dorset and East Devon Coast World Heritage Site *(Contributes towards Plan objective 6)*				

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Number of relevant proposals with assessment of impact on and mitigation for the World Heritage Site and its setting	All permissions consistent with this policy	Minerals industry Dorset & East Devon Coast World Heritage Site Steering Group Jurassic Coast World Heritage team Various environmental bodies	Any approval not consistent with this policy	None identified
DM7: The Historic Environment *(Contributes towards Plan objective 5)*				
Number of proposals including an assessment of the historic environment and/or archaeological evaluation % of minerals development planning applications compliant with the requirements of the policy	100% applications/ permissions consistent with this policy	Minerals industry English Heritage DCC Historic Environment Team	Any approval not consistent with this policy	Minerals and Historic Environment Forum practice guide and Historic Landscape Characterisation study may provide further guidance to help delivery of this policy.
DM8: Sustainable Transport and Minerals development (*Contributes towards Plan objective 5)*				

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
% of proposals facilitating sustainable transport in compliance with the policy Number of applications accompanied by a Transport Assessment Number of Applications containing sustainable transport assessment	100% applications/ permissions consistent with this policy	Minerals industry Highway Agency Internal Transport Specialists	Any approval not consistent with this policy	Possible options for facilitating sustainable transport such as rail and water are different for each mineral type but generally may be limited in the county. Minerals can only be worked where found and there are many instances where they are required to be worked some distance from the strategic highway network
DM9: Extraction and Restoration within Airfield Safeguarding Areas *(Contributes towards Plan objectives 4 and 5)*				
% of minerals development planning applications compliant with the requirements of the policy	100% applications/ permissions consistent with this policy	Minerals Industry DCC Ecologist Owner/operator of civil or military aerodromes	Any approval not consistent with this policy	None identified
DM10: Legal Agreements (*Contributes towards Plan objective 4 and 5)*				

Key Indicators(s)	Target	Implementation Partners	Trigger Point for correction and/or mitigation	Implementation Issues
Number of relevant permissions issued which include legal agreement	All permissions which require or qualify for a legal agreement to have one.	Mineral industry District/Borough Councils	Any qualifying proposed development permitted without the benefit of a legal agreement.	None identified
Policy DM11: Review of Old Mineral Planning Permissions (Contributes towards Plan objective 4 and 5)				
Number of times policy used in ROMP decisions	All relevant applications/ permissions consistent with this policy through the achievement of optimum working and restoration standards	Mineral industry	Any approval not consistent with this policy	None identified
Implementation and Monitoring				
Policy MON1: Monitor and Manage (Contributes towards Plan objectives 1, 2, 3 and 5)				
Number of applications including conditions related to the supply of production figures on a regular basis.	All relevant applications/ permissions consistent with this policy	Minerals and Waste Industry SWAWP Government departments	Any approval not consistent with this policy	There could be issues around commercial confidentiality that could limit the availability of information for use in monitoring purposes.

Glossary

Glossary

Aftercare: The cultivation, treatment and management of land, after initial shaping of materials and replacement of soils on completed mineral workings and tips, to bring land to the required standard for use for agriculture, forestry or amenity.

After–use: The use of land after reclamation for such activities as agriculture, forestry, nature conservation, public open space, recreation or other development.

Aggregate: Particles of rock or inorganic manufactured material which when brought together in a bound or unbound condition form part or whole of a building or civil engineering structure.

Aggregates Working Party (AWP): These groups provide technical advice to the Secretary of State in relation to the supply of and demand for aggregate minerals.

AONB (Area of Outstanding Natural Beauty): An area with statutory national landscape designation, the primary purpose of which is to conserve and enhance natural beauty. Together with National Parks, AONBs represent the nation's finest landscapes.

Apportionment: The proportional split of the Government guidelines for the supply of aggregates between regions in England. Sub-regional apportionment is the split of regional guidelines between Mineral Planning Authorities.

Appropriate Assessment: Formal assessment by the Competent Authority of the impacts of a plan or project on the integrity of a Natura 2000 site (a Special Protection Area (SPA), Special Area for Conservation (SAC) or proposed SPAs and Ramsar sites).

Armour Stone: Large blocks of stone used primarily for sea defence schemes to combat erosion.

BAP: See UKBAP below.

Biodiversity: The whole variety of life encompassing all genetics, species and ecosystem variations including plants and animals.

Borrow Pit: A site for the extraction of aggregate minerals over a limited period, for exclusive use in a specific construction project, which will usually be close to or contiguous with the site.

Building stone and roofing stone: 'MPS1: Planning and minerals - Practice Guide' defines as follows: "Building stone and roofing stone is used for repair of old buildings and structures, and for new construction. Products range from architectural masonry (dimension stone), cladding, natural stone “slates”, dressed walling stone, rough walling, kerbs, setts, sawn paving, natural riven paving, crazy paving, other external landscaping, monumental stone, and internal flooring fireplaces and ornamental features."

Bund: Mound or embankment of inert material, usually overburden or soil, which is used as a visual and/or acoustic barrier.

Carboniferous Limestone: An important source of crushed rock aggregate, suitable for concrete manufacture and roadstone. The Mendips form the main source of Carboniferous Limestone used in Dorset.

Cherty Series: The lowest of the Portland Beds, providing rock which is only suitable for crushing.

Communities and Local Government (CLG): National government department responsible for policy to support local government; communities and neighbourhoods; regeneration; housing; planning, building and the environment; and fire.

Conservation Areas: Areas of special architectural or historic interest, the character of appearance of which it is desirable to preserve or enhance.

CRA: Conservation Regulations Assessment. European legislation, and UK government's regulations, have introduced a need to carry out Conservation Regulations Assessments for local development documents and for particular development projects in order that the integrity of internationally important nature sites are protected.

Crushed Rock: Naturally occurring rock which is crushed into a series of required sizes to produce an aggregate.

Deposit: A concentration of mineral or sediment in a layer, vein or pocket.

Development Plan Documents (DPDs): Documents which form the statutory development plan and which contain planning policies and proposals. They are subject to independent examination and there is a right for those making representations to be heard at an independent examination. DPDs include the Minerals Strategy, Minerals Sites Plan and Waste Plan. Once adopted, development management decisions must be made in accordance with these DPDs, unless material considerations indicate otherwise.

Dimension stone: Stone cut to regular shapes as sizes of block, for use in the construction industry.

Dormant mineral site: A dormant site is one where no substantial development has been carried out in the period beginning on 22 February 1982 and ending on 6 June 1995. No further mineral development can be carried out on dormant sites until a new scheme of conditions has been submitted to and approved by the Mineral Planning Authority.

English Heritage: The Government's statutory adviser on the historic environment and the lead body for the heritage sector. Its strategy is to make the past part of the future by creating a cycle of understanding, valuing, caring and enjoying the historic environment.

Environment Agency: Established in 1996, the organisation takes direction from the Secretary of State for Environment, Food and Rural Affairs (Defra). It has responsibility for protecting the environment and contributing to sustainable development, such that all elements of the environment are taken into account, enabling consideration of the different impacts on water, land and air.

Environmental Assessment: The method of determining the environmental impact of a development proposal prior to the determination of a planning application.

Flood Zone: Flood zones show the probability of river and sea flooding in an area. Flood Zone 3 is split into Flood Zone 3a, which has a high probability of flooding, and Flood Zone 3b, which is the functional floodplain. Flood Zone 2 is assessed as having a medium probability of flooding. Flood Zone 1 is all land falling outside of Flood Zones 2 and 3 and is assessed as having a low probability of flooding.[51]

Freestone: A stone, such as limestone, that is soft enough to be cut easily without shattering or splitting.

Gathering Station: A complex, covering several hectares, at which oil and gas from remote well sites is 'gathered' and processed prior to being dispatched by rail, road or pipeline. It includes the control centre for the oilfield and individual well sites. At Wytch Farm, the gathering station provides facilities for generating power from gases and for processing seawater for injection into the reservoir.

Geodiversity: The variety of rocks, fossils, minerals and natural processes.

Heritage Coast: Undeveloped coast, originally designated by the former Countryside Agency as being of outstanding scenic value, and therefore in need of special protection while allowing management of the often competing needs of conservation, recreation, tourism and commercial activity such as shipping and fishing in a co-ordinated way.

High-wall mining: High wall mining or extraction consists of a series of small mines that extract otherwise wasted stone that sits between the final faces of the quarry and the actual boundary of the site.

Historic Environment: The physical legacy of thousands of years of human activity in this country, in the form of buildings, monuments, sites and landscapes.

Hydrology: The study of the movement of surface water.

Inert Fill/Waste: Waste products that do not undergo any significant physical, chemical or biological transformation and which are used in restoration to alter the profile of land following mineral extraction.

Jurassic Limestone: A limestone of Jurassic age generally regarded as "weak" and unsuitable for concrete manufacture and coating roadstone. Most limestone in Dorset is Jurassic.

Jurassic Coast World Heritage Site: Formally known as the Dorset and East Devon Coast World Heritage Site, it comprises the undeveloped cliffs and beaches between Orcombe Point near Exmouth in East Devon and Studland Bay near Poole in Dorset. It was granted World Heritage status on 13th December 2001.

51 Planning Policy Statement 25: Development and Flood Risk

Landbank: A “stock” of permitted reserves of a mineral within a particular area.

Landfalls: Facilities or infrastructure associated with offshore oil and gas developments that come onto the land, such as pipelines.

Landscape Character Assessment: A Landscape Character Assessment is a tool for identifying the distinct and recognisable elements in the landscape that give a locality its sense of place, describing what makes it different from its neighbouring areas.

Listed Building: a building that has been placed on the 'Statutory List of Buildings of Special Architectural or Historic Interest', which applies to half a million buildings in the UK.

Local Geological Site (LGS): An LGS is a site notified to the local planning authority as being of geological and/or geomorphological interest with educational potential. There is no statutory basis for such protection. This can however be sought through planning policy.

Local Nature Reserves (LNRs): Local authorities can, under Section 21 of the National Parks and Access to the Countryside Act 1949, create and manage Local Nature Reserves. Sites offering special opportunities for people to see, learn about and enjoy wildlife may qualify as an LNR as long as the site is in local authority control.

Marine Conservation Zone (MCZ) – Marine Conservation Zones are new Marine Protected Areas that are designated under the Marine and Coastal Access Act 2009. 27 new Marine Conservation Zones (MCZs) were designated in English inshore and offshore waters on 21 November 2013.

Marine Dredged Aggregates: Sand and gravel dredged from deposits on the seabed and landed at wharves for use as aggregate.

Marine Management Organisation (MMO) – The Marine Management Organisation is an executive non-departmental public body established in April 2010 and given powers under the Marine and Coastal Access Act (2009). The MMO is tasked with delivering the Government’s vision for clean, healthy, safe, productive and biologically diverse oceans and seas. The MMO has a wide range of responsibilities including the implementation of a new marine planning system, licensing marine works and managing UK fishing fleet capacity and UK fisheries quotas.

Marine Policy Statement (MPS) – The Marine Policy Statement is the framework for developing Marine Plans, ensuring consistency across the UK and providing direction for new Marine Licences and other authorisation systems in each UK administrations. The MPS applies to all UK waters.

Marine Protected Area (MPA) – Marine Protected Areas are areas of the sea and coast where wildlife is protected from damage and disturbance. These include Special Protection Areas (SPA), Special Areas of Conservation (SAC), and in the future, Marine Conservation Zones (MCZ).

Marine Wharfs: Points at which marine-dredged sand and gravel are landed and processed.

Minerals: Includes all substances of a kind ordinarily worked for removal by underground or surface working, except that it does not include peat cut for purposes other than for sale (s.336 to s.336(1), Town & Country Planning Act 1990 (as amended)).

Mineral Consultation Area (MCA): An area considered to contain a mineral resource worthy of safeguarding within which district/borough councils are required to consult Dorset County Council on non-minerals development proposals which could lead to sterilisation.

Minerals development: Throughout the text of the Bournemouth, Dorset and Poole Minerals Strategy, the winning and working of minerals, including extraction, tipping, processing, reclamation and ancillary operations is considered to include the production of recycled aggregates.

Mineral Development Document (MDD): Any document included in the Minerals Development Framework.

Minerals Development Framework (MDF): Minerals Development Frameworks comprise a folder of documents for delivering the minerals spatial strategy for the area, including the Minerals Strategy, Mineral Sites Plan and Proposals Map.

Minerals & Waste Development Scheme (MWDS): This is a project plan providing a timetable for the preparation of mineral and waste development documents.

Mineral Planning Authority (MPA): The planning authority responsible for managing minerals development. Dorset County Council and the unitary authorities of Bournemouth and Poole are responsible for mineral planning in their areas.

Minerals Policy Guidance (MPG): National policy guidance for minerals development, and supporting material (ie good practice guides) in effect prior to the NPPF. Following enactment of the NPPF, all but four MPGs were revoked and replaced by the NPPF. The extant MPGs are: MPG4, MPG8, MPG9, MPG14.

Minerals Policy Statement (MPS): National policy guidance for minerals development, and supporting material (ie good practice guides) in effect prior to the NPPF. These statements replaced some guidance found in Minerals Planning Guidance Notes (MPGs). Following enactment of the NPPF, all MPSs were revoked and replaced by the NPPF.

Mineral Safeguarding Area (MSA): An area considered to contain a valuable mineral resource which should be safeguarded against sterilisation by development.

Modification Order: A legal instrument which modifies a planning permission. Anyone whose rights are directly affected as a result may be able to claim compensation from the planning authority.

National Nature Reserves: National Nature Reserves are areas of national and sometimes international importance for nature conservation which are owned or leased by English Nature or a body approved by them, or are managed in accordance with a Nature Reserve agreement with landowner and occupiers. Many such reserves are also SSSIs.

National Planning Policy Framework (NPPF): National planning policy guidance enacted on 27 March 2012 to replace national guidance in the form of PPSs, MPSs, and MPGs.

Natura 2000: A network of protected environmental areas known as 'Natura 2000', which comprise all the SPA and SAC designations.

Nature Improvement Area (NIA): NIAs are intended to be a principal mechanism for delivering wildlife restoration and management, achieving significant enhancements to ecological networks by improving existing wildlife sites, building ecological connections and restoring ecological processes. Delivering at a landscape-scale, these areas should connect with their local economies and communities.

Natural England: Natural England is an independent public body whose purpose is to protect and improve England's natural environment covering urban, country and coastal landscapes, along with associated animals, plants and other organisms.

Outstanding Universal Value (**OUV**): The reason a site is included on the World Heritage List. Such sites have a "cultural and/or natural significance which is so exceptional as to transcend national boundaries and to be of common importance for present and future generations of all humanity. As such, the permanent protection of this heritage is of the highest importance to the international community as a whole". (Operational Guidelines for the World Heritage Convention 2008, para 49).

Overburden: Material, whether consolidated or not, which has to be removed before a mineral can be worked.

Palaeogene: The period of geological time between 65 and 23 million years ago, which is the early part of what was formerly known as the Tertiary period.

Permitted Reserves: Mineral deposits with the benefit of planning permission for extraction.

Planning condition: A condition imposed upon a planning permission, to mitigate any potential harmful effects of development.

Planning Policy Statements (PPS): National planning policy guidance and supporting material (ie good practice guidance). These replaced guidance found in some Planning Policy Guidance (PPGs). However, following enactment of the NPPF, all but one of the PPSs were revoked and replaced by the NPPF: PPS10 remains extant.

Primary Aggregates: Naturally occurring sand, gravel and crushed rock used for construction purposes.

Ramsar: A wetlands Site of Special Scientific Interest which is designated by the Secretary of State for the Environment under the Ramsar Convention as being of international importance, especially for waterfowl habitat.

Reclamation: The combination of restoration and aftercare.

Recommended Marine Conservation Zone (rMCZ) – These are Marine Conservation Zones that have been recommended to the Government but have not yet been designated.

Recycled aggregates: Recycled construction materials, produced from crushing and screening inert wastes such as demolition waste, road planings etc.

Restoration: The return of land to its former use or another suitable and beneficial new use, once mineral extraction from the land has been completed.

Review of Mineral Planning Permission (ROMP): Under Section 96 of the Environment Act 1995, MPAs are required to undertake a 'rolling' review of all existing planning permissions for winning and working of minerals or the deposition of mineral waste. This provides for the updating of planning conditions attached to old planning permissions.

Safeguarding: The protection of all types of minerals (which are, or may become, of economic importance) against other types of development which would be a serious hindrance to the mineral extraction.

Scheduled Monument (SM): A monument scheduled under the Ancient Monuments and Archaeological Act 1979.

Scoping Report: This sets out the framework that will be used to appraise policies, proposals or guidance against sustainability criteria.

SEA: Strategic Environmental Assessment. The analysis and evaluation of the environmental effects of a policy, plan or programme as required by the European SEA Directive of 2001.

Secondary aggregates: These include mineral by-products (such as waste sand from china clay), industrial wastes such as slag and railway ballast, and industrial by-products such as spent foundry sand.

Secretary of State (**SoS**): A cabinet minister in charge of of a Government department (such as SoS for Environment, Food and Rural Affairs; SoS for Communities and Local Government (CLG)).

Sensitive Receptor: Places/facilities where people may be affected by mineral developments; including, but not limited to, footpaths, churches, dwellings, residential areas, schools, recreational areas, visitor/tourist attractions, hospitals, travellers' sites, cemeteries.

SNCI: Sites of Nature Conservation Interest (SNCI) are areas which are designated locally for their wildlife importance. The SNCI designation does not carry any statutory protection.

Spatial Planning: Spatial planning goes beyond traditional land use planning and seeks to integrate policies for the development and use of land with those of other policies and programmes which influence the nature of places and how they function.

Spatial Vision: A description of how the area will be changed by the end of the plan period.

Special Areas of Conservation (SAC): Designated SSSIs which are of international importance which are designated as SACs under Article 3 of the European Habitats Directive of 1992.

Special Protection Areas (SPA): Designated SSSIs which are protected under Article 4 of the European Birds Directive of 2009, for the conservation of rare and vulnerable birds.

SSSI: (Site of Special Scientific Interest). Land which in the opinion of Natural England is of sufficient interest by reason of its flora, fauna, geological or physiographical features to justify statutory designations.

Stakeholder: A person, group, organisation, who affects or can be affected by, an organisation's actions.

Statement of Community Involvement (SCI): A document prepared as part of the development framework setting out when and how the community is to be involved in plan preparation and the determination of planning applications.

Supplementary Planning Document (SPD): These provide guidance to supplement the policies and proposals in development plan documents. They will not form part of the development plan or be subject to independent examination but will be a material consideration when making planning decisions.

Sustainability Appraisal (SA): The purpose of sustainability appraisal is to appraise the social, environmental and economic effects of policies so that decisions can be made that accord with the objectives of sustainable development. The appraisal process incorporates the requirements of Strategic Environmental Assessment.

Sustainable Development: The concept of meeting the needs of today without compromising the ability of future generations to meet their needs, taking account of social, environmental and economic need.

tpa: tonnes per annum (of mineral extracted).

UKBAP: The UK Biodiversity Action Plan aims to describe the biological diversity resources of the UK, and set out a detailed plan for their conservation.

Vernacular: Methods of 'built-form' (ie buildings) construction which use locally available resources and traditions to address local needs and circumstances.

World Heritage Site: A geographical place that is listed by UNESCO as being of special cultural or physical significance (see 'Outstanding Universal Value').

Appendix 1: Minerals Site Assessment Criteria

Appendix 1: Minerals Site Assessment Criteria

What is the purpose of the site selection criteria?

1 The site selection criteria, set out in this section, are a means of testing the suitability of individual mineral sites. The criteria have been developed in order to ensure a standardised approach which will be used to assess each site being considered for inclusion in the Mineral Sites Plan. This will provide consistency and a clear audit trail to demonstrate how assessments have been undertaken. The intention of the site selection criteria is to assess potential positive and negative impacts of their allocation and where necessary the identification of suitable mitigation. The development management policies in the Minerals Strategy are intended to ensure that the range of matters covered by the site specific criteria will also be taken into account, where relevant, when non-allocated sites are considered. Hence it will be in the interests of applicants for non-allocated (windfall) sites to demonstrate that these criteria have been considered when the application is submitted.

2 The assessment of sites is, by its nature, a complex task that deserves in-depth consideration. If an assessment contains a 'red' or even a series of reds this does not indicate absolute constraints that will automatically rule the site out from further consideration. The number of red scores one site may have over another should not be used as a guide to rank its preference. Red scores will however indicate where further work is required to identify whether and how an impact can be mitigated.

3 The criteria have been developed in such a way as to be appropriate for all mineral types. Mineral type and its relevant importance will be noted at the beginning of each assessment. The assessment will be complemented by the strategy set out in the mineral specific chapter of the Minerals Strategy.

Relationship between the site selection criteria and the sustainability appraisal

4 Carrying out sustainability appraisal of the emerging minerals policy documents is required by government. It provides important information on the effects that the implementation of policies and proposals could have socially, economically and on the environment.

5 The site selection criteria cover all aspects of sustainable development. They have been developed from the sustainability objectives identified in the Sustainability Appraisal Scoping Report [(52)]. This is to ensure that sites are appraised having regard to the full scope of sustainability issues which have shaped the Minerals Strategy.

6 Whilst the criteria will be used to recommend the sites taken forward in the Mineral Sites Plan, the plan as a whole will be subject to a sustainability appraisal exercise in order to consider potential cumulative impacts.

7 The plan as a whole will be subject to Conservation Regulations Assessment (CRA) to examine possible effects on European sites. The sustainability appraisal and CRA are separate processes. Within Appendix 1, any reference to European sites should be taken to include Ramsar sites for the purposes of assessment, where relevant.

52 The Scoping Report is available to view at: www.dorsetforyou.com/mwdf

The Assessment

8 Every site brought forward for consideration in the future will be consistently tested against all the criteria. Each assessment will be carried out as follows and an individual assessment report produced.

General Description, to include:

a	map of the area and site boundary
b	mineral type
c	brief description of proposal and existing landuse
d	scale of development – output/reserve/life of site
e	restoration proposals
f	access and traffic generated by proposal

Deliverability

9 Questions of deliverability are intended to refer to whether a site can physically be put into operation, before potential impacts are considered through the criteria.

a	Is the site in conformity with the Minerals Strategy?
b	Is there geological evidence of the presence and viability of the mineral?
c	Are there any alternative uses to mineral extraction that have been identified, on the land, in other plans?
d	Is the site located within a preferred area in the existing Minerals and Waste Local Plan (1999)?
e	Does this conflict with plans/proposals of adjoining Mineral Planning Authorities?
f	Are there any issues of land ownership that could prevent development of the site in the plan period? For example covenants
g	What is the site's proximity to existing markets?
h	Is the site proposed as an extension to an existing site?
i	Has the site been considered in the past for minerals extraction?
j	Is there any other relevant planning history?
k	Is it possible to achieve acceptable restoration of the site?

l	Does the sequential test for flooding indicate that the site is appropriate for the proposed use?

The Detailed Assessment

10 The main section of the assessment will contain the reasoned written justification behind the consideration of each criterion. A colour will be awarded for that criterion with red highlighting the most severe impacts and green the least or even highlighting a positive impact from the proposed development.

11 The following points will be taken into consideration when assessing sites against the twenty five criteria:

a. Both direct and indirect impacts
b. Timescales – set out clearly if there are different long and short term effects.
c. The need for a particular mineral type and its availability
d. Mitigation measures – it is expected that the site promoter will identify how they propose to mitigate against impacts.
e. Specialist views and expert advice, where relevant.

12 Where distances are included in criteria, these are intended to provide a guideline for assigning a score. However other factors which may increase or lessen the particular impact will also be taken into consideration. The criteria are not weighted. Although there are more criteria on the environment this simply reflects the range of aspects that need to be considered.

Overall Recommendations

13 After the assessment has been carried out there will be an overall recommendation as to whether the site proposal should be taken forward. In many cases there will still be issues that need further attention. This will be highlighted in this section with suggestions for further investigation. Where mitigation measures are required these can be set out in the Mineral Sites Plan to ensure that they are followed through to the application stage.

14 For proposals where mitigation of identified adverse impacts will not be possible, it is likely that those sites would not normally be progressed further.

15 Sites thought suitable will be recommended for identification in the Mineral Sites Plan and will be subject to approval of members of the councils. At this stage there will be opportunities for stakeholder consultation.

16 A number of sites for future minerals extraction emerged following a 'Call for Sites' during 2008. It is expected that more sites will be nominated in the future for consideration. Currently no sites have been subjected to the full site assessment as described above.

17 The preparation of the Mineral Sites Plan will involve a consistent assessment of all known sites to measure the relative impacts and produce a list of preferred sites whose inclusion within the document can be strongly and robustly defended. These preferred sites will be subject to Conservation Regulations Assessment and sustainability appraisal, to consider potential cumulative impacts.

The Site Selection Criteria

18 Below are the 25 site selection criteria which will be used to undertake the main body of the site assessments. Criteria 1 - 15 relate to environmental sustainability objectives, Criteria 16 relates to economic sustainability objectives and Criteria 17 - 25 relate to social sustainability objectives.

Site Selection Criterion C1

Does the proposal have any impact on international/European nature conservation designations?

19 The response to this criterion will identify whether there are possible linkages between the proposed mineral site and an SAC, SPA or Ramsar site. There are several ecological issues which are key factors that help to determine the likelihood of adverse effects of development on European sites. For aggregate and ball clay sites these are: hydrology, displacement of recreation, proximity, species, land management and site restoration. For Purbeck stone sites these are: dust and proximity.[53] The range of possible indirect mechanisms of impact should be considered.

20 Sites which are judged to have possible linkages through which European sites could be affected by mineral development should be subject to detailed assessment of those possible effects to determine their significance in light of the Conservation Regulations. Proposed working, restoration and mitigation will need to be taken into account.

21 The text may also explain how factors such as scale of extraction, type of mineral being extracted, direction of flow of groundwater and surface water, change in air quality and diversion of public access would affect the level of impact.

22 Should an assessment demonstrate that a site would adversely affect a European site, it would not be taken forward.

53 See Chapter 16, Biodiversity and Geological Conservation - paragraph 16.27 for a full explanation of potential effects

A	Very significant adverse impact • Site would have direct impacts on a SPA[54] (including proposed SPAs), SAC[55] (including candidate SAC) or Ramsar[56] site. • Site would have indirect impacts on an SPA, SAC or Ramsar site, or is functionally linked to such a designated habitat.
B	Significant adverse impact *Not applicable - any effect on the integrity of an SPA, SAC or Ramsar site is categorised as 'A'*
C	Less significant adverse impact *Not applicable - any effect on the integrity of an SPA, SAC or Ramsar site is categorised as 'A'*
D	No significant or negligible impact • Site has no possible pathway to international nature conservation designations
E	Positive impact • Site has potential for strategic nature conservation gain and/or quiet recreation through restoration[57]

Site Selection Criterion C2

Does the proposal have an impact on areas used by Annex 1 Bird Species?

54 Special Protection Area - area of importance for the habitats of certain rare or vulnerable categories of birds or for regularly occurring migratory bird species, required to be designated and protected by member states under the European Community Directive on Wild Birds - 2009/147/EC. SPAs are taken to include proposed SPAs

55 Special Area of Conservation - a site designated under the EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora as of special importance. SACs are taken to include candidate SAC

56 Ramsar Site - a wetland Site of Special Scientific Interest which is designated by Government as being of international importance

57 The Dorset Nature Map will be used to aid identification of the potential for site restoration to contribute to a strategic nature area

23 A decision made by the Secretary of State in 2011 has indicated that where there is a possibility that a site (or part of a site) would be recommended for classification as a Special Protection Area (SPA), a 'risk based approach' should be taken in its assessment. [58] This possibility exists where a site is used regularly by more than 1% of the Great Britain population of a species listed on Annex 1 of the EC Birds Directive.

24 This means such a site should be assessed to consider whether there would be a likely significant effect on the bird population, as if it were a potential SPA. A 'shadow appropriate assessment' of the implications on the minerals development may therefore be required for sites which fall within the above definition. Such an assessment would need to take into consideration the scale, phasing, mitigation and restoration proposals as this may influence whether or not the bird population would be affected (by loss of habitat for example). The assessment would need to determine whether any potential impacts in this respect are capable of mitigation.

A	Very significant adverse impact • Site currently contributes to an area which supports more than 1% of the Great Britain population of a species is listed on Annex 1 of the EC Birds Directive outside of an existing designated or proposed SPA.
B	Significant adverse impact *Not applicable - site will be classed as either supporting more than 1% of relevant species or not*
C	Less significant adverse impact *Not applicable - site will be classed as either supporting more than 1% of relevant species or not*
D	No significant or negligible impact • Site is not used by more than 1% of the Great Britain population of a species is listed on Annex 1 of the EC Birds Directive
E	Positive impact • Site has potential for strategic nature conservation gain through potential to create habitat for Annex 1 Bird species.

58 See: Town and Country Planning Act 1990 – Section 77. Application by VEOLIA ES Nottinghamshire Ltd. Land at former Rufford Colliery, Rainworth, Nottinghamshire NG21 0ET. Application Ref: 3/07/01793/CMW

Site Selection Criterion C3

Does the proposal have any impact on national designations for nature conservation?

25 The response to this criterion will be mainly factual, however the text may also explain how other factors (such as scale of extraction, type of mineral being extracted, direction of flow of groundwater and surface water, change in air quality, diversion of public access) would determine the level of impact. Proposed working, restoration and mitigation will also need to be taken into account.

26 The written explanation should also clarify the reason for the designation as this will be important in the assessment of likely impacts.

A	Very significant adverse impact • Site contains or has potential for direct or indirect effects [59] on a Site of Special Scientific Interest (SSSI[60]); and • Full mitigation of effects is not possible, resulting in significant residual loss of biodiversity.
B	Significant adverse impact • Site contains or has potential for direct or indirect effects on a Site of Special Scientific Interest (SSSI); and • Full mitigation of effects is possible, and there would be no significant residual loss of biodiversity.
C	Less significant adverse impact • Site supports species of a designated site
D	No significant or negligible impact • Site contains no national nature conservation designations
E	Positive impact • Site has potential for strategic nature conservation gain through restoration

Site Selection Criterion C4

Does the proposal have any impact on protected species?

59 Possible mechanisms of indirect effects include: hydrology; disturbance through noise, dust and lighting due to proximity; impacts on characteristic species; and impacts on the management of designated sites

60 Although a SSSI is designated at a national level (by Natural England), it may be designated on the basis of its national or regional significance. Either would be considered under this criterion.

27 Again, while the response to this criterion will be mainly factual, the text may also explain how other factors (such as scale of extraction, type of mineral being extracted, direction of flow of groundwater and surface water, change in air quality, diversion of public access) would determine the level of impact. Proposed working, restoration and mitigation will also need to be taken into account.

A	Very significant adverse impact • Site is known to support European Protected Species
B	Significant adverse impact • European Protected Species, or uncommon UK protected species, are known to inhabit the area immediately adjacent to the site
C	Less significant adverse impact • European Protected Species, or uncommon UK protected species, are known to inhabit an area within 500m of the site and/or the site may provide habitat important for the species' conservation; the site may support substantial populations of common protected species with little opportunity for adequate mitigation of habitat loss
D	No significant impact or negligible impact • Site supports common protected species with significant opportunity for mitigation to maintain their local conservation status
E	Positive impact • Site has potential for enhancement of protected species populations through restoration.

Site Selection Criterion C5

Does the proposal have any impact on local recognitions/designations, including ancient woodland and veteran trees?

28 The response to this criterion will be mainly factual. However, the text will explain what the important feature is and how factors such as scale of extraction and type of mineral being extracted would determine the level of adverse impact. Proposed working, restoration and mitigation will also need to be taken into account. Non-designated features of local importance will be considered in the written explanation alongside those that are designated.

A	Very significant adverse impact • Site contains or has potential for direct or indirect impacts on a Site of Nature Conservation Interest (SNCI) or Local Nature Reserve (LNR); or other features of importance for wildlife and geology in the landscape, e.g.

	ancient woodland, veteran trees, ponds; or UK BAP species or habitats or Red and Amber listed birds[61]; and • Full mitigation of effects is not possible, resulting in significant residual loss of biodiversity.
B	Significant adverse impact • Site contains or has potential for direct or indirect impacts on a Site of Nature Conservation Interest (SNCI) or Local Nature Reserve (LNR); or other features of importance for wildlife and geology in the landscape, e.g. ancient woodland, veteran trees, ponds; or UK BAP species or habitats or Red and Amber listed birds; and • Full mitigation of effects is possible, and there would be no significant loss of biodiversity.
C	Less significant adverse impact • Site supports species and habitats of a locally designated site, or other features of importance for wildlife in the landscape
D	No significant or negligible impact • Site contains no local significant features of importance for wildlife
E	Positive impact • Site has potential for nature conservation gain through restoration, especially to recreate landform to support UK BAP species and habitats

Site Selection Criterion C6

Does the proposal have any impact on geodiversity?

29 The response to this criterion will be based on expertise provided by the DCC Earth Science team and/or information from the Local Geodiversity Action Plan. The text will explain what the important feature is and how factors such as scale of extraction and type of mineral being extracted would determine the level of adverse impact. Proposed working, restoration and mitigation will also need to be taken into account.

A	Very significant adverse impact

61 See: Birds of Conservation Concern (RSPB 2009)

	• Site would adversely affect the outstanding universal value of the Dorset and East Devon Coast World Heritage Site or result in the loss of or damage to an important geological or geomorphological feature
B	Significant adverse impact • Site would have a detrimental impact on a Local Geological Site (LGS, formerly known as RIGS) or on the setting of the Dorset and East Devon Coast World Heritage Site.
C	No impact • Site would have no impact on the conservation of geological or geomorphological features and there is no potential for geodiversity enhancements.
D	Some positive impact • Site contains known features of interest that may be modified but not damaged or lost by the proposals. Geological exposures and/or geomorphological features represent an ongoing interest.
E	Positive impact • Site has potential to create new and significant opportunities for scientific research and geological conservation.

Site Selection Criterion C7

Does the proposal have any impact on designated landscapes?

30 Although the response to this criterion will be mainly factual in terms of distance from the designation, the text will also explain that proximity of the site to a designation is not a good enough indicator alone. It will explain how detailed assessment will be required to determine site specific impacts and emphasise that a range of other factors relating to topography and land cover may mitigate or exacerbate the impact of development as would the sensitivity of the landscape resource and/or viewpoints affected. The scale of excavation, type of mineral and mitigation proposed are also critical factors to be taken into account.

A	Very Significant adverse impact • Site is within an Area of Outstanding Natural Beauty (AONB), Heritage Coast and/or World Heritage Site
B	Significant adverse impact • Site is immediately adjacent to or likely to impact on the setting of Area of Outstanding Natural Beauty, World Heritage Site, Heritage Coast and/or National Park
C	Less significant adverse impact

	• Potential for limited impact on setting of AONB, Heritage Coast, World Heritage Site and/or National Park
D	No significant impact/negligible • No impact on AONB, Heritage Coast, World Heritage Site and/or National Park and their settings
E	Positive impact • Proposal provides an opportunity to enhance landscape character within AONB, Heritage Coast or National Park

Site Selection Criterion C8

What is the landscape capacity to accommodate the site?

31 Landscape capacity refers to the ability of the landscape to accommodate development, in this case minerals development. The colour grading given to this question will be derived directly from a landscape and visual assessment commissioned by Dorset County Council and carried out by consultants [(62)] in Summer 2009, the same methodology will be used to assess sites brought forward after this date. The results of the assessment are based on consideration of landscape character sensitivity, landscape value (taking account of any designations) and visual sensitivity. Reaching conclusions about capacity means making a judgement about whether the amount of change proposed can be accommodated without having unacceptable adverse effects on the character of the landscape and without compromising the values attached to it.

A	Very significant adverse impact • Landscape capacity to accommodate the site is low.
B	Significant adverse impact • Landscape capacity to accommodate the site is between low and medium
C	Less significant adverse impact • Landscape capacity to accommodate the site is medium
D	No significant or negligible impact • Landscape capacity to accommodate the site is between medium and high
E	Positive impact • Landscape capacity to accommodate the site is high and/or there is the potential for an improvement to the landscape

Site Selection Criterion C9

Does the proposal have any impact on historic landscapes?

32 Consideration will be given to the nature and location of the proposed development in relation to historic feature(s) in the vicinity and what constitutes its/their setting. The setting does not simply mean whether the feature can be seen from the development - views from other positions must also be considered. Whether the development can be seen, heard, felt or smelt from the historic site/feature will all be factors in determining the colour grading given. This criterion will not just include designated landscapes but will also refer to the significance of the historic landscape, as informed by the emerging study on Historic Landscape Characterisation.

A	Very significant adverse impact • Site contains a Grade I Registered Park or Garden, Historic Landscape Character of national importance or a Conservation Area
B	Significant adverse impact • Site provides the setting to a Grade I Registered Park or Garden or Historic Landscape Character of national importance or a Conservation Area • Site contains a Grade II* or Grade II Registered Park or Garden or seriously affects its setting • Site is within a significant undesignated historic landscape
C	Less significant adverse impact • Site would result in a time-limited impact on the setting of a Registered Park or Garden or Conservation Area • Site is in the vicinity of a significant undesignated historic landscape and would affect its setting
D	No significant or negligible impact • Site is not considered to have any identified historic landscape constraint
E	Positive impact • Provides an opportunity to enhance existing features

Site Selection Criterion C10

Does the proposal have any impact on historic buildings?

33 Consideration will be given here to the nature and location of the development in relation to any listed buildings and historic infrastructure, together with what constitutes the setting of the building(s). The setting does not simply mean whether the building can be seen from

the development – again, views from a number of locations must be assessed. Whether the development can be seen, heard, felt or smelt from the protected site will also be relevant in determining the colour grading given.

A	Very significant adverse impact • Site contains a Grade I Listed Building or seriously affects its setting
B	Significant adverse impact • Site contains a Grade II* or II listed building or seriously affects its setting
C	Less significant adverse impact • Site would result in a time-limited impact on the setting of a listed building.
D	No significant or negligible impact • Site is not considered to have any identified historic building constraint
E	Positive impact • Proposal provides an opportunity to enhance existing historic buildings or their settings and/or proposal provides material required for repair of historic buildings

Site Selection Criterion C11

Does the proposal have any impact on archaeology?

34 The presence (or likely presence) of archaeology within the site together with its significance will be explained, along with its setting (see explanation of setting above). This will include consideration of both designated archaeology and locally important archaeology, including industrial. Any opportunities for mitigation will also be considered in order to determine the appropriate colour grading.

35 A desk-based assessment of the presence of and/or potential for archaeology within the site would be requested from a site promoter where necessary. The presence of and impacts on undesignated archaeological interest can however only be fully determined through a pre-application evaluation (and if necessary further appropriate investigations).

A	Very significant adverse impact • Site contains a nationally important archaeological site such as a Scheduled Monument, or seriously affects the setting of such a Monument
B	Significant adverse impact • Site comprises or includes the setting of a Scheduled Monument or contains known archaeological sites
C	Less significant adverse impact

	• Site contains known archaeological sites, or has high archaeological potential but there is an opportunity to avoid unacceptable impact. Impacts may be temporary.
D	No significant or negligible impact • Site contains no known archaeological sites.
E	Positive impact • The proposed development can in some way enhance or benefit existing archaeological features or their settings

Site Selection Criterion C12

Does the proposal have any impact on hydrogeology or groundwater?

36 At this stage impacts on hydrology and hydrogeology are assessed through the location of the proposed development in relation to the Source Protection Zones (SPZs) defined by the Environment Agency. More detailed hydrogeological assessment will be required if the site is in an SPZ or where it is in the vicinity of licensed and unlicensed water supplies or any other water features that could be impacted by mineral workings, such as the impacts from groundwater dewatering or 'wet-working' methods. The direction/flow of groundwater should also be noted. Consideration should also be given to the potential impacts of minerals extraction in terms on groundwater quality. The Environment Agency will have input into this aspect of the assessment of site proposals.

37 Impacts on hydrology could potentially impact protected habitats and this will be considered under criteria C1, C2 and C4.

A	Very significant adverse impact • Site is completely or partially within SPZ 1 or within the default 50m protection radius for a licensed/unlicensed water supply or within 50m of any other groundwater dependent features.
B	Significant adverse impact • Site within SPZ 2 or within 250m of a licensed/unlicensed water supply or any other groundwater dependent feature, or on a principal aquifer.
C	Less significant adverse impact • Site within SPZ 3 or within 500m of a licensed/unlicensed water supply or any other groundwater dependent features, or on a secondary aquifer.
D	No significant or negligible impact • Site overlies 'unproductive strata' and there are no water interests or any other groundwater dependent features within 500m of site boundary. Site does not overlie an SPZ.

E	Positive impact • Opportunity to improve/protect groundwater.

Site Selection Criterion C13

Does the proposal have any impact on surface waters?

38 Surface waters are defined as rivers, streams, ditches, wetlands (e.g. ponds and reedbeds) and coastal waters. Main rivers are regulated by the Environment Agency. As above, the Environment Agency will contribute to this aspect of the assessment.

39 Consideration should also be given to the potential impacts of minerals extraction in terms of contamination on agriculture and food production areas downstream and nearby. Impacts on surface water could potentially impact protected habitats and this will be considered under criteria C1, C2 and C4.

A	Very significant adverse impact • Surface water located within the site proposal, or within 50m of site boundary
B	Significant adverse impact • Surface water within 250m of site boundary
C	Less significant adverse impact • Surface water within 500m of site boundary
D	No significant or negligible impact • No surface water within 500m of site boundary
E	Positive impact • Opportunity to create or enhance water interests off or on the site.

Site Selection Criterion C14

Does the proposal have any impact on flooding or coastal stability?

40 Dorset County Council is required to carry out a Strategic Flood Risk Assessment (SFRA) of the county. The SFRA flood zones which take into account climate change shall be used in the assessment. When complete, it will inform the colour grading attributed to any proposal from this assessment. Site specific Flood Risk Assessments (FRAs), where produced, will also be relevant. Factual details will be recorded and the Environment Agency will be asked to comment on the likelihood of flood risk/impact. If a site requires grading as red or

amber, a level 2 Strategic Flood Risk Assessment will be necessary prior to advancing the allocation. It is expected that site specific FRAs would be required for most minerals proposals, including all those with an area of more than 1ha and in Flood Risk Zone (FRZ) 1.

41 Where sites are located relatively close to the coast there will also be the need to consider issues of coastal stability. Shoreline Management Plans are overall strategies for the future management of the coastline and these should be considered where they are in existence. Coastal Change Management Areas identified by Local Planning Authorities should be referenced where relevant.

A	Very significant adverse impact • Site (excluding sand and gravel site) and all processing plant is at risk of flooding or it poses an increased flood risk as it is located wholly within FRZ 2 and 3, or in an area with a history of groundwater flooding. • Site is at significant risk from coastal instability
B	Significant adverse impact • Site (excluding sand and gravel site) and all processing plant is proposed to be partially located with FRZ 2 and 3, or in an area with a history of groundwater flooding. • Development would conflict with proposals in shoreline management plan or coastal change management area
C	Less significant adverse impact • Site (excluding sand and gravel site) and processing plant is proposed to be located immediately adjacent to FRZ 2 and 3, or is in an area with a history of groundwater flooding.
D	No significant or negligible impact • Sand and gravel site (excluding all ancillary processing plant etc) located within FRZ 1, 2 or 3 or in an area with a history of groundwater flooding. All other forms of extraction in FRZ 1.
E	Positive impact • Site and processing plant is not located within FRZ or floodplain and/or site offers potential to be restored to act as a reservoir to reduce flood risk elsewhere.

Site Selection Criterion C15

Does the proposal have any impact on existing soils or land type?

42 This criterion considers potential impacts on a combination of land use, designations and underlying soil type/quality. These are not of over-riding importance, as in many cases it is possible to completely reinstate the site to its pre-mineral development use. However, it

is useful to be aware of the extent to which a proposed development will impact on these factors. The possibility that the proposed development will have a positive impact and will contribute to the remediation of soil contamination is also covered in this criterion. Best and Most Versatile Land is land defined as grades 1,2, and 3a of the Agricultural Land Classification. Further information about the actual land use and soil type may be included in the overall summary of any site proposal.

A	Very significant adverse impact • Extensive permanent loss and/or destruction of soil and/or permanent loss of best and most versatile agricultural land
B	Significant adverse impact • Site would result in a reduction in the quality of soils or best and most versatile land and/or site is located within greenfield land or an Environmentally Sensitive Area (ESA) and/or Village Green or Common Land
C	Less significant adverse impact • Good quality land will be affected, but restoration would return the land to equal soil quality and/or land grading
D	No significant or negligible impact • Site is poor quality agricultural land or forestry
E	Positive impact • Site is contaminated and remediation or other improvement is economically viable via proposed development.

Site Selection Criterion C16

Does the proposal have any impact on Air Quality Management Areas (AQMAs)?

43 Air quality in this context refers specifically to potential impacts of proposed minerals development on designated AQMAs and does not consider the impacts of dust produced as a result of mineral development. The expectation is that dust will be controlled through conditions and other measures applied during the planning application process. Dust is also referred to under criterion C18.

A	Very significant adverse impact • Significant increase in traffic levels leading to a decrease in air quality within an AQMA
B	Significant adverse impact • Increase in traffic levels leading to a decrease in air quality immediately adjacent to and up-wind of an AQMA

C	Less significant adverse impact • Site is immediately adjacent to but not up-wind of an AQMA and/or there are likely to be minimal/no increases in traffic levels
D	No significant or negligible impact • No AQMA would be affected
E	Positive impact • Site offers opportunities to remediate existing air quality issues (e.g. planting trees)

Site Selection Criterion C17

What are the relevant economic considerations?

44 The successful delivery of the Minerals Strategy, through the supply of minerals, will support the area's continuing economic and population growth and development of sustainable communities. Significant weight in the Plan is placed upon their continued provision.

45 The need for the various minerals is set out in the relevant chapters and minerals proposals that come forward to meet these identified needs will, if acceptable, be key to deliverability of the strategy and achievement of the overall vision. Whether a proposal is in conformity with the Minerals Strategy is the first of the deliverability questions which are considered even before potential impacts are assessed through the site selection criteria.

46 The contributions that minerals developments make to the local and national economy are highlighted throughout the Minerals Strategy, in particular in relation to Portland Stone, Purbeck Stone, ball clay and hydrocarbons.

47 There are many aspects to a proposal that may have a positive and/or negative impact on the economy. This section will enable these issues to be drawn out and balanced against other considerations.

48 In order to assess the economic contribution of a minerals proposal consideration should be made to issues such as:the level of employment that would be created or maintained both directly and indirectly; how important the site may be to the delivery of a steady and adequate supply of minerals; the wider contribution the site may make to the economy; the rarity of the mineral and its potential markets; and any economic impacts (both negative and positive) that the proposal may have such as on tourism.

49 The assessment should consider the entire life of the proposal and where opportunities exist through restoration and afteruse. Economic benefits may arise if restoration leads to habitat creation, the provision of agricultural land or employment uses and opportunities for inward investment associated with recreation and tourism.

A	Not applicable
B	Significant adverse impact on the economy locally or nationally • Site may result in long-term or permanent reduction in employment as a result of working the minerals at this site. • Extraction may result in wider negative impacts in the locality which have significant adverse impacts on the economy • Afteruse proposed would have significant adverse impacts on the economy compared to its pre-extraction land use – for example removing land from agriculture to nature conservation afteruse
C	Less or no significant impact on the economy locally or nationally • The site is not essential to the delivery of an adequate and steady supply of the mineral type but would make a limited contribution to supply. • Site may result in reduced or delayed employment opportunities in the surrounding area as a result of working the minerals • Site maintains employment opportunities and local skills • Afteruse proposed would have limited or no impact on the economy compared to its pre-extraction land use
D	Positive impact on the economy locally or nationally • The site would have a positive impact on the delivery of an adequate and steady supply of the mineral type. • Site maintains and/or creates employment opportunities and local skills • Proposed afteruse provides positive economic benefits
E	Significant positive impact on the economy locally or nationally • The site would have a significant positive impact on the delivery of an adequate and steady supply of the mineral type. • The site creates significant employment and local skills development opportunities both directly and indirectly • The proposal would make a wider contribution to the local and/or national economy from the delivery of minerals. • Proposed afteruse provides significant positive benefits to the economy

Site Selection Criterion C18

Does the proposal have any impact on Sensitive Human Receptors?

50 Sensitive human receptors are places where people may be affected by minerals developments and for the purposes of the assessment include, but are not limited to, residential areas, dwellings, schools, churches, visitor/tourist attractions, recreational areas, hospitals, hospices, travellers sites, cemeteries and prisons.

51 A description of the sensitive human receptors that may be affected and how, together with a description of the existing natural environment and ways in which the details of the development may reduce adverse impacts, will be given. For example if the extraction is shallow and the site would be worked progressively the impact on the sensitive human receptors may only be for a very short period. Mitigation will also be considered before a colour grading is given. Factors such as prevailing wind direction and existing physical features will be taken into consideration. Noise, dust, lighting, visual intrusion and impacts on amenity and/or human health, including impacts from lorry traffic, will be included here, as well as any physical features such as spoil heaps that may create a visual impact on sensitive human receptors. A positive benefit could include a beneficial restoration for the local community or a benefit through planning obligations.

A	Very significant adverse impact • Site proposal is adjacent to/upwind of a sensitive receptor, with no natural screening
B	Significant adverse impact • Site proposal is adjacent to sensitive receptor (wind direction, screening, mitigation to be considered as well)
C	Less significant adverse impact • Site proposal is within 250m of sensitive receptor (wind direction, screening, mitigation to be considered as well)
D	No significant impact/negligible • Site proposal is within 500m of sensitive receptor (wind direction, screening, mitigation to be considered as well)
E	Positive impact • Site proposal is away from sensitive receptors (wind direction, screening, mitigation to be considered as well) or proposal offers positive benefit to relevant sensitive receptor

Site Selection Criterion C19

Does the proposal have any impact on existing settlements?

52 The location of the settlement will be explained and any factors deemed important will also be set out and taken into consideration before a colour grading is given. Factors that will be taken into account include: whether there are natural barriers between the settlement

and proposed site that would minimise impact (e.g. a major road, tree screening); whether mitigation (e.g. establishment of buffers, bunding, screening, working methods to reduce noise etc) would be able to overcome potential impacts; whether or not lorries will need to travel through or by settlements to access the site; and the frequency of lorry movements through settlements.

A	Very significant adverse impact • Site proposal is adjacent to/upwind of a settlement, with no natural screening
B	Significant adverse impact • Site proposal is adjacent to settlement (wind direction, screening, mitigation to be considered)
C	Less significant adverse impact • Site proposal is within 250m of a settlement (wind direction, screening, mitigation to be considered)
D	No significant impact/negligible • Site proposal is within 500m of a settlement (wind direction, screening, mitigation to be considered)
E	Positive impact • Site proposal is away from settlements (wind direction, screening, mitigation to be considered as well) **or** proposal offers positive benefit to a settlement

Site Selection Criterion C20

Does the proposal have any impact on airport safety?

53 The proposed approach to working the site i.e. dry or wet working together with restoration and afteruse will be key considerations to be explained and considered prior to reaching a colour grading for this criterion. The cumulative effect of a site with neighbouring sites in the attraction for birds will need to be considered.

A	Very significant adverse impact • Site proposed for wet-working/wetland restoration and contained within the 13km safeguarding consultation zone
B	Significant adverse impact • Site located adjacent (within 3km) to or within 3km of the 13km safeguarding consultation zone and proposed for wet working/wetland restoration
C	Less significant adverse impact

	• Site within 8km of aerodrome but not proposed for wet working/wetland restoration or site between 16km and 30km of aerodrome and proposed for wet working/wetland restoration
D	No significant impact/negligible • Site within or adjacent (within 3km) of 13km safeguarding consultation zone but not proposed for wet working
E	Positive impact • Site not located near to or adjacent to aerodrome safeguarding consultation zone

Site Selection Criterion C21

Does the proposal have any effect on cumulative impacts?

54 Assessment of cumulative impacts is intended to give an impression of the impacts of not just the proposed minerals development but other minerals development in the vicinity, together with any other existing or proposed built development of a significant size. The latter could include larger scale housing or office/industrial development, which will generate significant volumes of traffic.

A	Very significant adverse impact • Proposed site is a new site or an extension to an existing site, in an area where there is other mineral working OR other large scale built development within 5 km, and the proposed site extension will represent an intensification of the development
B	Significant adverse impact • Proposed site is a new site or an extension to an existing site, in an area where there is other mineral working OR other large scale built development within 5 km
C	Less significant adverse impact • Proposed site is an extension to an existing site – no other mineral working OR other large scale built development within 5km
D	No significant or negligible impact • No net increase in impacts due to minerals development – any impacts of additional development offset by reduction in other development within 5km
E	Positive impact • Further mineral working would provide opportunities for benefits such as improvements to infrastructure.

Site Selection Criterion C22

Does the proposal have any impact on carbon emissions?

55 One of the primary impacts of minerals extraction related to the generation of carbon emissions is transportation of the mineral from the quarry to its market. An explanation of the existing land use and likely markets for the mineral extraction will be provided in order to determine the correct colour grading.

56 In addition, it is acknowledged that there is more to carbon emissions than purely transport issues. Explanatory text should also cover broader issues such as energy usage and sustainable construction methods where it is not possible to have specific criteria.

A	Very significant adverse impact • Site would result in significant permanent loss of vegetation
B	Significant adverse impact • Material would be transported by road
C	Less significant adverse impact • Site would use conveyors or other sustainable means of transportation
D	No significant or negligible impact • Site is adjacent to wharf (loose or container) and/or rail depot or site has potential for access to rail depot and/or wharf facilities
E	Positive impact • Site includes established rail depot and/or wharf for use as part of the proposed development • Site makes provision for carbon offsetting off site or through restoration

Site Selection Criterion C23

Does the proposal have any impact on recreational land?

57 The current function/use of the land, available alternatives and restoration proposed will be considered and explained before reaching a decision on the colour grading to be given under this criterion. The potential impacts if mineral working would lead to displacement of existing recreational activity onto nearby sensitive heathlands will also be an important consideration as this would constitute a significant or very significant adverse impact.

A	Very significant adverse impact

	• Significant loss of recreational land with no opportunity for replacement, during or after development
B	Significant adverse impact • Significant loss of recreational land but with opportunity for replacement, to a similar or improved state, after development
C	Less significant adverse impact • Loss of formal or informal recreational land with alternative, of a similar or improved state, available during and after development
D	No significant or negligible impact • Site has no formal or informal recreational or access use
E	Positive impact • Opportunity to create a new public recreational area or contribute to green infrastructure of proven need

Site Selection Criterion C24

Does the proposal have any impact on public rights of way?

58 The location of any statutory public rights of way (PRoW) such as footpaths or bridleways which cross or are otherwise affected by a proposal will be set out, together with the expected necessity to stop or temporarily/permanently divert these routes. Where possible the importance of the route and usage will be explained and considered.

A	Very significant adverse impact • Major diversion (temporary or permanent) of a significant right of way such as a National Trail or cycle route
B	Significant adverse impact • Site includes public right of way or formal public access land – diversion or other alternative arrangements (temporary or permanent) required
C	Less significant adverse impact • Site is adjacent to public right of way
D	No significant or negligible impact • No public rights of way affected
E	Positive impact • Opportunity to create or enhance public rights of way

Site Selection Criterion C25

Are the access proposals acceptable?

59 A factual explanation of the location of the development in relation to the strategic highway network will be included. Suitable connecting routes to the development should be identified considering highway safety, carriageway geometry, highway capacity and possible amenity impact.

60 Roads considered unsuitable might include residential streets, single track roads, remote country lanes, roads passing schools or roads subject to significant congestion. Cumulative impacts should also be considered.

61 Proposed mitigation measures, such as highway improvements, HGV routing strategies, etc, will be considered. In all instances, highway safety shall be the prime consideration. Existing (where applicable) and proposed HGV movements will be considered, along with other relevant information which may be requested in line with Department for Transport requirements for Transport Statements.

62 Dorset County Council transport development management engineers will contribute to this aspect of the assessment.

A	Very significant adverse impact • Development poses infrastructure constraints that are unlikely to be able to be overcome.
B	Significant adverse impact • Unsuitable and/or poor quality connecting roads provide link to the site and/or HGVs passing directly through existing settlement and/or poor access.
C	Less significant adverse impact • Site has good access and suitable connecting roads.
D	No significant or negligible adverse impacts • Safe access directly onto the strategic highway network with no requirement for connecting roads or HGVs to travel through existing settlements.
E	*In itself development is unlikely to have positive impact however highway improvements required to mitigate impacts can result in benefits overall.*

Appendix 2: Programme of Replacement of Saved Policies

Appendix 2: Programme of Replacement of Saved Policies

Saved Policies are those in the Minerals and Waste Local Plan (1999) and Waste Local Plan (2006) contained in the Secretary of State's Schedules of Saved Policies under the provisions of the Planning and Compulsory Purchase Act 2004 (as amended).

Minerals & Waste Local Plan 1999		**Policy to be superseded [63] by:**
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
01- Consideration of Applications for M&W waste facilities	MPA stance on application determination taking into account objectives of sustainable development, with applications in AONB & environmental designations subject to rigorous investigation.	Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction
02 - Restoration	MPA stance on application determination taking into account objectives of sustainable development, and employing a progressive restoration strategy.	Minerals Strategy: RS1 Restoration, Aftercare, and Afteruse of Minerals Development
		Minerals Strategy: RS2 Retention of Plant, Machinery and other ancillary development
03 - Practicability of working methods	MPA stance on application determination taking into account objectives of sustainable development, and ensuring financial	Minerals Strategy: RS1 Restoration, Aftercare, and Afteruse of Minerals Development

63 Saved Policies listed in Appendix 2 will remain in place until superseded by the adoption of the relevant plans and policies as listed in this table. Note where more than one plan is listed against a specific saved policy, that policy will remain 'saved' until all listed plans/policies are adopted.

Minerals & Waste Local Plan 1999		Policy to be superseded [63] by:
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
	commitments for restoration and afteruse of the site can be satisfactorily demonstrated.	
04 - Seeking Bonds or Financial guarantees	Provision for the MPA to seek financial guarantees from applicants to ensure funding for restoration/aftercare	Minerals Strategy: RS1 Restoration, Aftercare, and Afteruse of Minerals Development (Financial provision)
05 - Relating to applications within Preferred Areas (Minerals)	Criteria for assessing applications for Sand & gravel, ball clay, and Purbeck Stone in locations within preferred areas, to identify measures to alleviate environmental effects and safeguard local amenity, especially within areas of high environmental sensitivity.	Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction
06 - Relating to applications outside the Preferred Areas	Criteria for assessing applications for Sand & gravel, ball clay, and Purbeck Stone in locations outside preferred areas, to ensure that applications provide an assessment that the need for the development outweighs other considerations.	Minerals Strategy: SS2 Identification of sites in the Mineral Sites Plan Minerals Strategy: PK2 Consideration for Purbeck Stone Proposals

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Minerals & Waste Local Plan 1999		Policy to be superseded [63] by:
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
		Minerals Strategy: BC1 Provision of Ball Clay
		Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction
		Mineral Sites Plan
07 - Safeguarding Resources & Facilities	To prevent sterilisation of minerals for future generations and to ensure that housing and sensitive land use does not encroach upon existing or potential mineral developments.	Minerals Strategy: SG1 Mineral Safeguarding Area
		Minerals Strategy: SG2 Mineral Consultation Area
		Minerals Strategy: SG3 Safeguarding of Mineral Sites and Facilities
08 - Exploration	Criteria for minerals exploration work is set out, when no permitted development rights exist	Minerals Strategy

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Minerals & Waste Local Plan 1999		Policy to be superseded [63] by:
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
	(within GPDO). The importance of pre-application discussions is confirmed.	
09 - Ancillary development	Criteria for ancillary development at minerals' sites are set out, when no permitted development rights exist (within GPDO). The importance of pre-application discussions is confirmed.	Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction
10 - Transport	Criteria for road-borne transportation of mineral, taking consideration of residential amenity and environmental factors.	Minerals Strategy: AS4 Wharves and Depots
		Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction
11 - Transport	Criteria for use of haulage operator transportation of mineral by road, where no alternative transportation exists, and including possible s.106 contributions to highway infrastructure.	Minerals Strategy: DM8 Transport and Minerals Development

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Minerals & Waste Local Plan 1999		Policy to be superseded [63] by:
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
12 - Negotiated Improvements - operating sites	Criteria for environmental improvements through negotiation for operational sites	Minerals Strategy: DM11 Review of Old Mineral Planning Permissions
13 - Negotiated improvements - inactive sites	Criteria for environmental improvements on inactive sites through negotiation	Minerals Strategy DM11 Review of Old Mineral Planning Permissions
14 - Negotiated improvements - related land and cumulative impact	Criteria for environmental improvements through negotiation for new sites - cumulative impacts with adjacent disturbed land	Minerals Strategy: DM11 Review of Old Mineral Planning Permissions
15 - Preferred areas for sand and gravel	Criteria for Aggregate site permissions within preferred areas	Mineral Sites Plan
16 - Applications for the winning and working of gravel outside Preferred Areas	Criteria for special permission for aggregate site permissions outside preferred areas	Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction
		Minerals Strategy: AS1 Provision of Sand and Gravel

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Minerals & Waste Local Plan 1999		Policy to be superseded [63] by:
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
		Mineral Sites Plan
17 - Limited extensions to sand and gravel sites	Criteria for small scale extensions to existing aggregate site permissions	Minerals Strategy: AS1 Provision of Sand and Gravel Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction
18 - Borrow Pits	Criteria for permissions for borrow pits	Minerals Strategy: AS5 Borrow Pits
19 - Sand & Gravel Landbanks	Release of land to maintain landbanks for construction sand and for gravel	Minerals Strategy: AS2 Landbank provision
20 - Crushed Rock Landbanks	Criteria for crushed rock permissions in relation to the landbank	Minerals Strategy: AS3 Crushed Rock
21 - Alternative sources of aggregate	Criteria for permitting alternative aggregate to land-won (sea dredged, sea borne, rail borne, recycled)	Minerals Strategy: RE1 Production of Recycled Aggregates

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Minerals & Waste Local Plan 1999		Policy to be superseded [63] by:
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
		Minerals Strategy: AS4 Wharves and Depots
22 - Aggregate import facilities	Criteria for permitting marine aggregate wharves & short haul imports from neighbouring authorities	Minerals Strategy: AS4 Wharves and Depots
24 - Portland Stone - Presumption against new quarries on Portland	No new quarries unless environmental improvements would be achieved	Minerals Strategy: PD2 Surface Quarrying of Portland Stone
25 - Portland Stone - Voluntary environmental improvements on Portland	Criteria for reduction in environmental impact from existing quarries, and seeking improvements through s.106s	Minerals Strategy: PD4 Minimising Impacts of Existing Permissions on Portland
29 - Portland Stone - Restoration standards on Portland	Criteria for standards of restoration of Portland quarries with beneficial afteruse	Minerals Strategy: PD5 Restoration of Sites on Portland Minerals Strategy: RS1 Restoration, Aftercare and Afteruse of Minerals Development
30 - Purbeck Stone - Presumption in favour of extraction in Preferred Areas	Criteria for permission for new Purbeck quarries (in preferred areas)	Minerals Strategy: PK2

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Minerals & Waste Local Plan 1999		Policy to be superseded [63] by:
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
		Considerations for Purbeck Stone Proposals
		Mineral Sites Plan
31 - Purbeck Stone - Presumption against extraction outside preferred areas	Criteria for permission for new Purbeck quarries outside preferred areas	Minerals Strategy: PK2 Considerations for Purbeck Stone Proposals
		Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction
32 - Purbeck Stone - Discouragement of non-traditional uses	No crushing of Purbeck stone for aggregate/fill - traditional use of stone only	Minerals Strategy: PK4 Crushing of Purbeck Stone at Dimension Stone Quarries
33 - Purbeck Stone - Imposition of conditions	Reduction of visual intrusion of processing facilities at Purbeck Stone quarries & restoration of sites	Minerals Strategy: PK2 Consideration for Purbeck Stone Proposals
34 - Purbeck Stone - Other building stones	Criteria for permission of blockstone (not Portland/Purbeck stone)	Minerals Strategy: BS1 Building Stone Quarries

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Minerals & Waste Local Plan 1999		Policy to be superseded [63] by:
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
35 - Ball Clay - Presumption in favour of applications within preferred areas	Criteria for ball clay permissions within preferred areas	Mineral Sites Plan
36 - Ball clay - Applications within areas of search	Criteria for ball clay exploration within areas of search	Minerals Strategy: BC1 Provision of Ball Clay
37 - Ball Clay - applications within the AONB & outside the preferred areas	Criteria for ball clay permissions within AONB & specific preferred areas	Minerals Strategy: BC1 Provision of Ball Clay Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction
38 - Ball Clay - Use of ball clay in high quality end uses	High quality ball clay extraction criteria	Minerals Strategy.
60 - Restoration - Consideration of applications	Criteria for permitting extensions or changes to existing sites within the Puddletown Road area	Minerals Strategy: AS1 Provision of Sand and Gravel Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction

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Minerals & Waste Local Plan 1999		Policy to be superseded [63] by:
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
62 - Restoration - Applications on land outside preferred areas	Criteria for permitting new mineral or waste operations outside the preferred areas within the Puddletown Road policy area	Minerals Strategy: AS1 Provision of Sand and Gravel
		Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction
		Waste Local Plan: Policy No. 42 - Landfilling Inert Waste
63 - Restoration - Mineral traffic crossing Puddletown Road	Criteria for permissions for new or extended operations south of Puddletown Road, in relation to traffic crossing the adjoining road	Minerals Strategy: DM8 Transport and Minerals Development
65 - Restoration - Consideration of applications	Criteria for permitting restoration of former mineral workings in the Moreton-Redbridge area	Minerals Strategy: RS1 Restoration, Aftercare, and Afteruse of Minerals Development
		Minerals Strategy: DM11 Review of Old Mineral Planning Permissions
67 - Hydrocarbons - Exploration	Criteria for permitting exploratory drilling for hydrocarbons	Minerals Strategy: HY1

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Minerals & Waste Local Plan 1999		Policy to be superseded [63] by:
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
		Proposals for Exploration and Appraisal
68 - Hydrocarbons - Appraisal	Criteria incumbent on operators to provide details of appraisal area for drilling	Minerals Strategy: HY1 Proposals for Exploration and Appraisal
69 - Hydrocarbons - Production	Criteria for permissions for facilities for commercial hydrocarbon production	Minerals Strategy: HY2 Proposals for Production Facilities and Ancillary Development
70 - Hydrocarbons - Gathering station	Criteria for the siting of gathering stations and major facilities associated with hydrocarbon developments	Minerals Strategy: HY2 Proposals for Production Facilities and Ancillary Development
71 - Hydrocarbons - Transport	Criteria for the transportation of hydrocarbons	Minerals Strategy: HY3 Transportation of Hydrocarbons
72 - Hydrocarbons - Restoration	Criteria for the restoration of the 3 phases of hydrocarbon development	Minerals Strategy: HY4 Decommissioning and Restoration of Production Facilities and Ancillary Development

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Minerals & Waste Local Plan 1999		Policy to be superseded [63] by:
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
73 - Hydrocarbons - Converting exploration sites to production	Criteria for the assessment of proposals to convert exploration sites into production facilities	Minerals Strategy: HY2 Proposals for Production Facilities and Ancillary Development
		Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction
74 - Hydrocarbons - Criteria for landfalls	Specific criteria for permissions for landfalls for pipelines	Minerals Strategy: DM1-10 Management of Operational Impacts related to Mineral Extraction

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Waste Local Plan 2006		Policy to be superseded [63] by:
POLICY NO.	**REASON FOR POLICY**	**PLAN TITLE/POLICY NO.**
32 – Recycling of inert and construction and demolition waste	Criteria for permission for recycling and inert and construction and demolition waste proposals, to be in accordance with other plan policies	Minerals Strategy: RE1 Production of Recycled Aggregates
Saved Policies 1-4, 6-9, 11-13, 15, 17, 19-21, 23-31 and 33-47	Various policies covering waste matters and site allocations	To be superseded by the new Waste Plan (once adopted), which will be commenced during 2012.

Appendix 3: Policies Map (Adopted)

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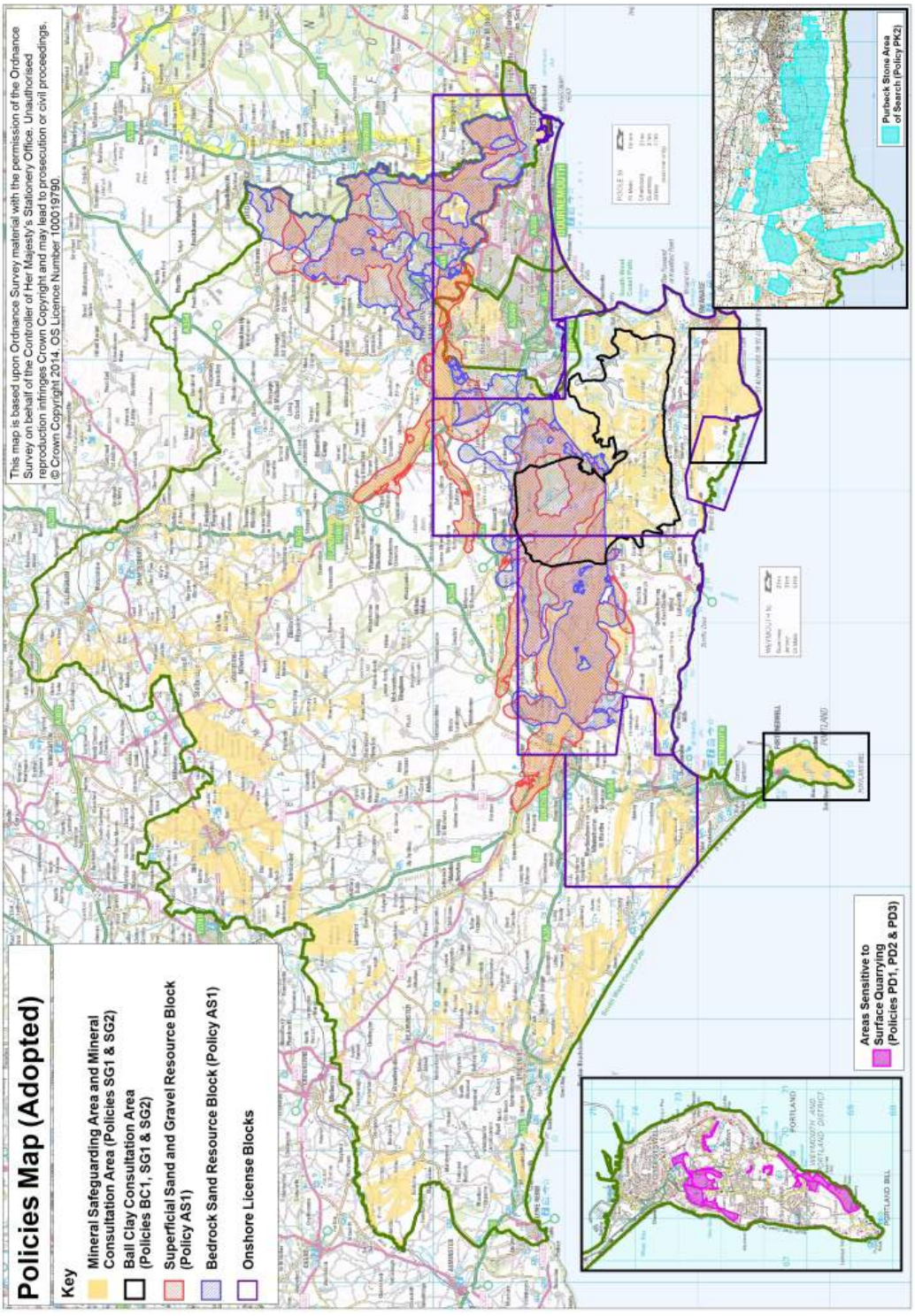
Figure 30 Policies Map (Adopted)



Appendix 4: Key Diagram

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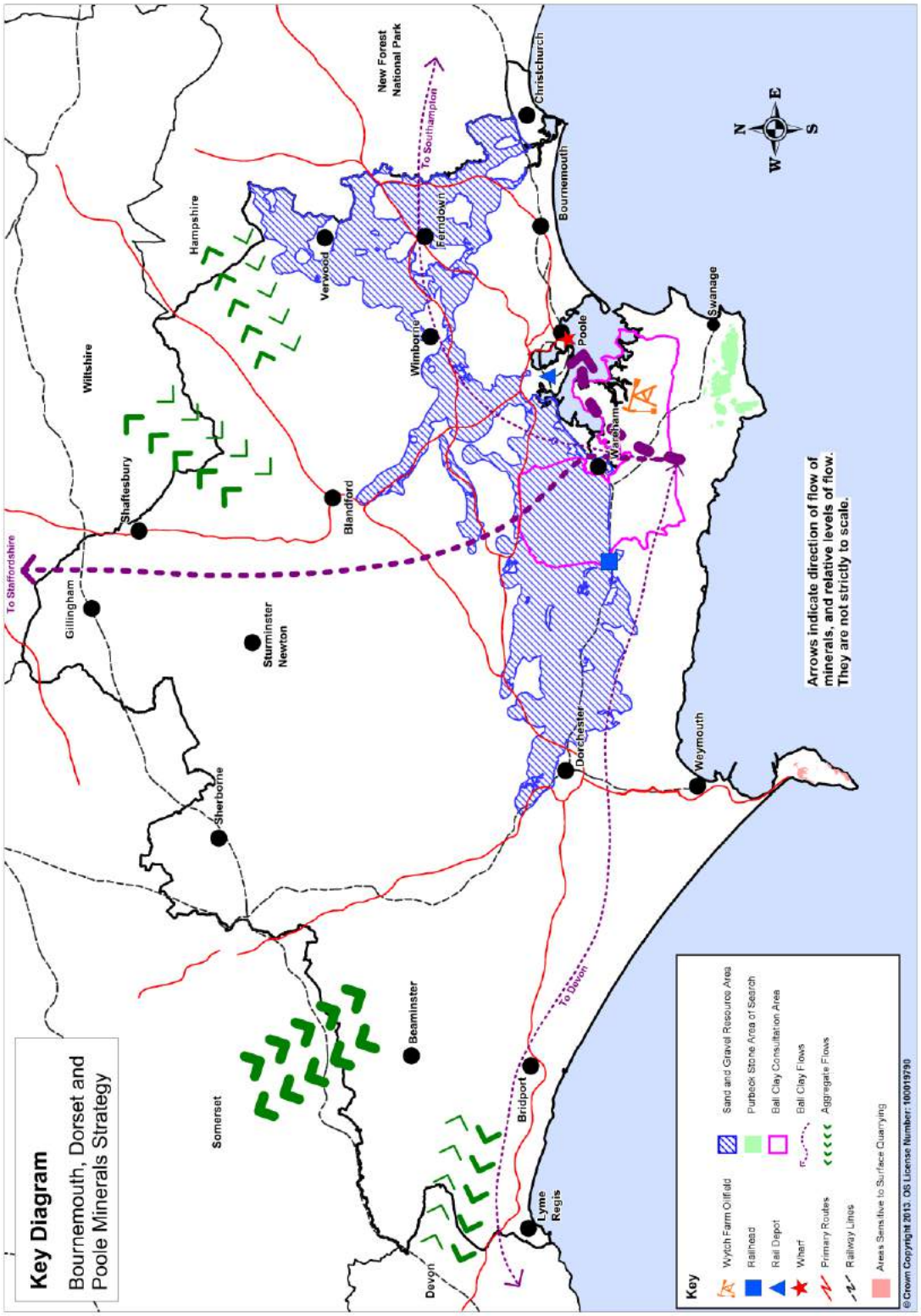

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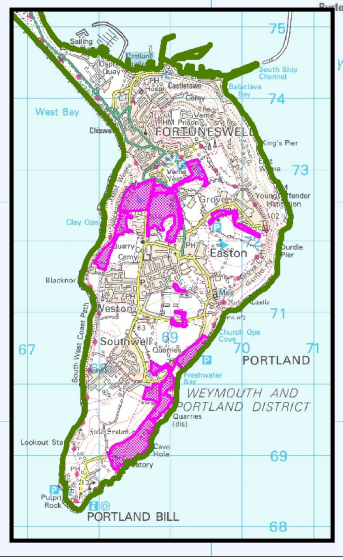
Policies Map (Adopted)

Key

- Mineral Safeguarding Area and Mineral Consultation Area (Policies SG1 & SG2)
- Ball Clay Consultation Area (Policies BC1, SG1 & SG2)
- Superficial Sand and Gravel Resource Block (Policy AS1)
- Bedrock Sand Resource Block (Policy AS1)
- Onshore License Blocks



Areas Sensitive to Surface Quarrying (Policies PD1, PD2 & PD3)