

Topic Paper 4 - Biodiversity and Geodiversity

Biodiversity and Geodiversity

Introduction

This topic paper sets out the baseline information firstly for biodiversity and secondly for geodiversity in Dorset. The summary then brings together the two topics in terms of relevant policy documents; potential impacts and issues; and identification of sustainability objectives.

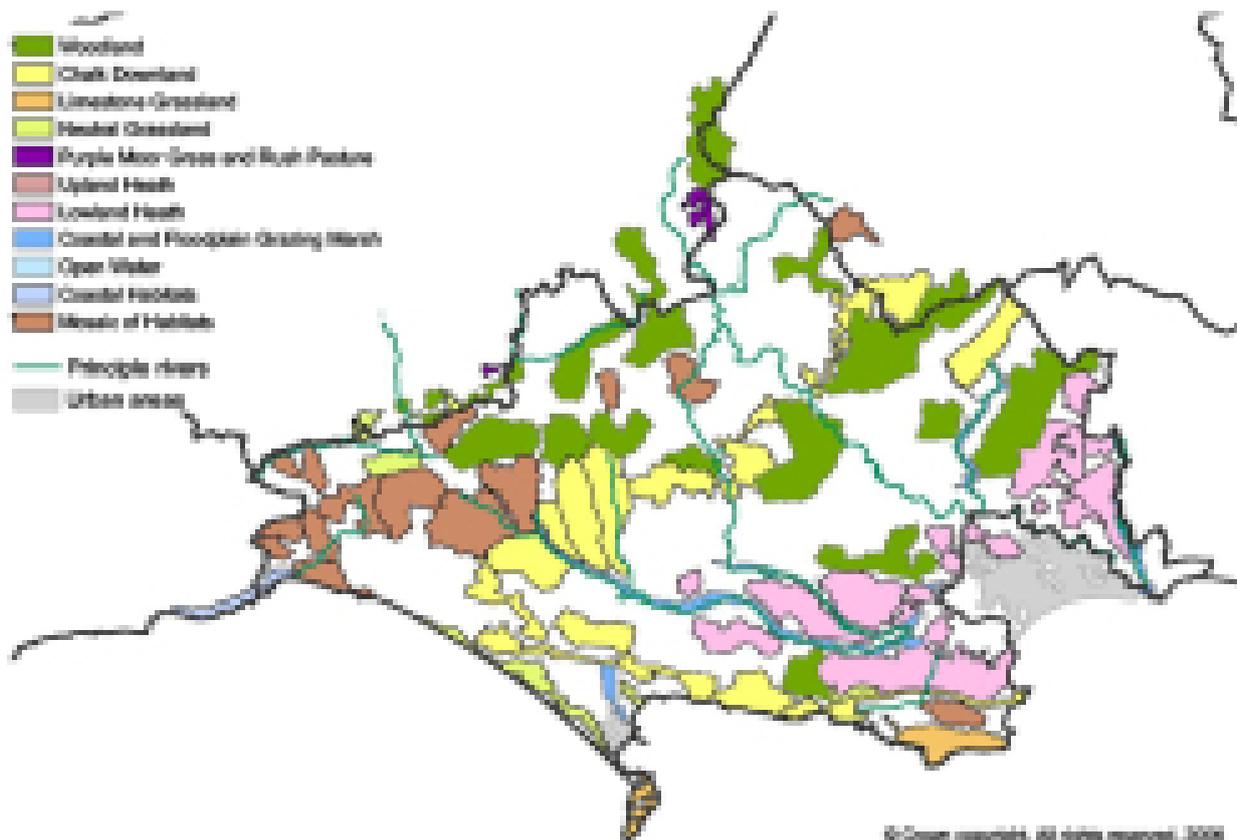
Biodiversity - Baseline

Biodiversity in Dorset

1 Dorset is one of the most important counties in England for nature conservation interest. The rich and diverse mosaic of habitats include chalk downland, heathland, ancient woodland, river valleys, and coastal habitats. Species found include 85% of all species of mammals living in Britain, 90% of all our birds, 80% of all our butterflies, 70% of our dragonflies, and nearly all British reptile and amphibian species.

2 The Dorset Nature Map (Figure 1) shows a number of strategic nature areas which illustrate the best areas to maintain and expand terrestrial wildlife habitats at a landscape scale. The Nature Map is a useful resource that should be considered when devising the overarching strategy for waste management. It also illustrates where Dorset's BAP targets could be met through the restoration of minerals and waste sites.

Figure 1 Dorset Nature Map



3 Dorset contains a wealth of internationally, nationally and locally designated nature conservation areas, as shown in Table 1. This illustrates that the biodiversity of the county is well respected and protected. The designations are discussed in more detail below.

Table 1 Designated Nature Conservation Sites in Dorset, Bournemouth & Poole

Name of designation	SPA	SAC	Marine SAC	Ramsar	SSSI	SNCI	LNR
No. of sites	4	14	2	4	141	1,267	49
Total area of designated sites (ha)	11,648	12,753	-	10,319	19,994	12,172	702

SPA=Special Protection Area; SAC=Special Area of Conservation; Ramsar=internationally important wetlands; SSSI=Site of Special Scientific Interest; SNCI: Site of Nature Conservation Interest; LNR=Local Nature Reserve.

Source: Dorset Data Book 2011

Special Protection Areas (SPA)

4 SPAs are strictly protected sites classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC), also known as the Birds Directive, which came into force in April 1979. They are classified for rare and vulnerable birds listed in Annex 1 to the Birds Directive and for regularly occurring migratory species. Many SPA sites are also Ramsar sites and are comprised of estuary and coastal areas. There are a number of SPAs on the southern coast of Dorset; Chesil and the Fleet; Poole Harbour, the Dorset Heathlands, and Avon Valley near Christchurch. The Dorset Heathlands SPA covers a wide expanse of Purbeck District, and a large part of East Dorset District Council.

5 Whilst there are no areas currently recognised as 'possible Special Protection Areas', there are a number of areas which meet the requirements to be designated as such. A key criterion for selection is that an area is used regularly by more than 1% of the Great Britain population of a species listed on Annex 1 of the EC Birds Directive. This is the case for nightjar and woodlark whereby a number of forested areas support the populations of the Dorset Heathlands SPA. Case law indicates that such areas should be considered in the same way as SPAs when being assessed for potential for development.

Special Areas of Conservation (SAC) (including proposed SAC)

6 These are sites of international importance designated under the EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (also known as the Habitats Directive). Figure 5 illustrates the SACs within Dorset, concentrated on the south coast of West Dorset, Weymouth & Portland, and Purbeck. These are the Sidmouth to West Bay SAC, the Chesil to the Fleet SAC, the Isle of Portland to Studland Cliffs SAC, and the St Aldhelms Head to Durlston Head SAC, all of which

lie within the Dorset AONB. Dorset has 11% of the UK's rare lowland heath, virtually all of which is designated as part of the Dorset Heaths SAC, covering large areas of Purbeck. There are also two marine SACs, described below.

Ramsar Sites

7 This is an International and European statutory nature conservation designation which identifies Wetlands of International importance. In Dorset, Ramsar sites include the wide expanse of the Dorset Heathlands and Chesil and the Fleet.

8 Figure 2 shows the distribution of the internationally designated nature conservation sites in Dorset. It will need to be demonstrated through appropriate assessment that policies and site allocations within the Waste Plan, and the site allocations within the Mineral Sites Plan, will not have an adverse effect on the integrity of SACs, SPAs and Ramsar sites, in accordance with the Conservation of Habitats and Species Regulations (2010).

9 Nationally important mineral deposits coincide with the Dorset Heaths and Dorset Heathlands designations, notably ball clay. Sand and gravel also outcrops here. The extraction of such minerals has the potential to impact on the designated sites through a number of direct and indirect means, including through the displacement of people onto the heathlands. The oil and gas well sites of Wytch Farm are also interspersed amongst the designations and require careful land management. As such, there is the potential for cumulative impacts of mineral working. Such issues will need careful assessment through the Sustainability Appraisal and through Habitats Regulations Assessment.

Sites of Special Scientific Interest (SSSI)

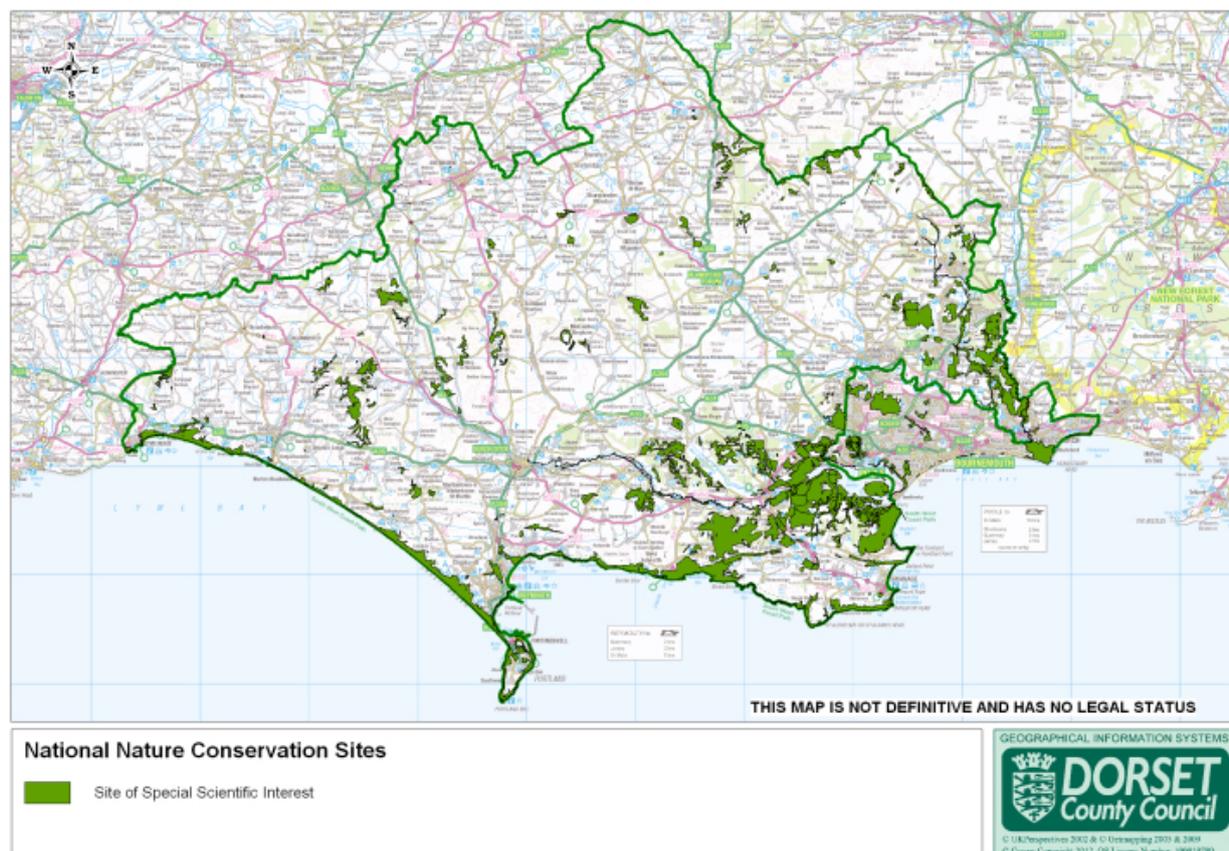
10 These are sites statutorily notified under the Wildlife & Countryside Act 1981 (as amended) as being of special nature conservation interest. SSSIs include wildlife habitats, geological features and landforms. There are 141 SSSIs in Dorset, covering a total area of 19,994ha, which have been designated by Natural England as SSSIs because of their national importance for wildlife or earth science features. The distribution of these sites is shown on Figure 3.

11 Some SSSIs have also been designated as Ramsar sites, Special Protection Areas (SPAs), or Special Areas of Conservation (SACs) in recognition of their international importance. Figure 2 illustrates these specially designated areas.

12 Of all the land designated as SSSIs in Dorset, Bournemouth and Poole, 43% (8,683ha) is considered to be in favourable condition, with no areas destroyed or partly destroyed; whereas 57% (11,311ha) is considered to be unfavourable, with a trend for deterioration rather than improvement⁽¹⁾.

1 as at May 2010 (Dorset Data Book 2011)

Figure 3 National nature conservation designations



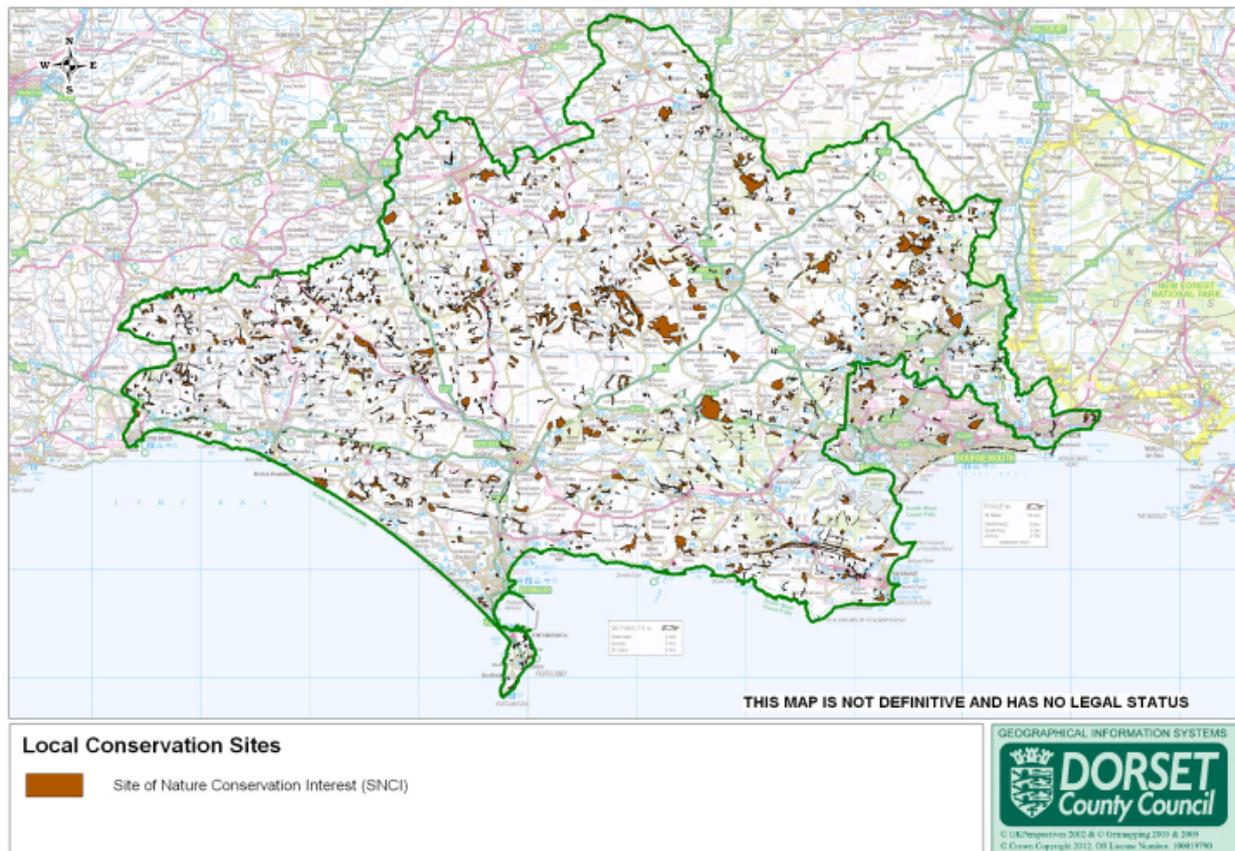
Local Nature Reserves and Sites of Nature Conservation Interest

13 Local Nature Reserves (LNRs) are designated by Local Authorities in conjunction with Natural England, and are managed for both people and wildlife. They are places with wildlife or geological features that are of special interest locally, which give local people special opportunities to study and learn about them or simply enjoy and have contact with nature. LNRs are statutory designations declared by Local Authorities under the provision of the National Parks and Access to the Countryside Act 1949. In Dorset the reserves are considered to have a high nature conservation or natural history value in a district or county context. There are 49 Local Nature Reserves in Dorset, Bournemouth and Poole, which cover an area of 702ha. Included in this figure are the LNRs at Bothenhampton, Thorncombe Wood, and Corfe Hills.

14 Sites of Nature Conservation Interest (SNCI) are designated by Dorset Wildlife Trust, and their designation is restricted to sites of importance for wildlife. These are locally designated, with maintenance of the sites relying almost entirely on volunteer effort.

15 Often LNRs and SNCIs cover the same area, as both designations cover a selection of habitats of inherent wildlife interest, but in addition, some sites may be selected for supporting rare or scarce species of plants or animals outside such habitats. The areas concerned may be areas of 'natural' habitats, or they may be man-made.

Figure 4 Local nature conservation designations



Priority Habitats

16 Following the globally increased awareness of the threat to biodiversity and increased pressure from environmental organisations within the UK, central Government published a UK Biodiversity Action Plan on biodiversity in 1995.

17 The UK Biodiversity Group has divided the whole land surface of the country and the surrounding seas into 27 broad habitat types. Dorset contains 21 of the UK's 27 broad habitat types, and together these cover the entire land area within the county. At the UK level, 45 more narrowly defined 'priority habitats' have been singled out. For each of these, a costed habitat action plan (HAP) has been prepared under the UK Biodiversity Programme.

18 UK priority habitats were selected using one or more of the following criteria:

- habitats for which the UK has international obligations
- habitats at risk, such as those which are rare or have a high rate of recent decline
- habitats which are functionally important for species inhabiting wider environments
- habitats important for species of particular conservation concern

19 Of the 45 UK priority habitats, 32 occur in Dorset. In accordance with the national process these habitats are the focus for action in the Dorset Biodiversity Strategy (adopted 2003). In addition to these, using similar criteria to the above, the Dorset Biodiversity Partnership has selected ponds, valley mires and the marine habitats brittlestar beds and Mytilus edulis beds as local priority habitats.

20 Based on data available for SSSIs and SNCIs, priority habitats represent approximately 12% of the county. This figure excludes the area of priority marine habitat, which has not yet been fully determined. Together, they represent Dorset's critical natural assets. ⁽²⁾

Species

21 Many protected species are present in Dorset, including a range which are European Protected Species given strict protection under the Conservation Regulations. These include all bat species, Sand Lizard, Smooth Snake and Dormouse.

22 The UK Biodiversity Programme has identified 1288 'species of conservation concern'. Of these, over 560 species of particular concern have been selected as 'priority species', which are those most in need of conservation action. 33% of these species occur in Dorset. Species Action Plans (SAPs) or statements have been prepared for all priority species in the UK. These plans set targets and a broad framework for action, and to be effective they must be translated into a more local context.

23 The Dorset Biodiversity Audit (DERC 2003) identifies species of concern and highlights which of these are UK priority species. In consultation with local experts and specialist groups, local priority species were identified based on local threat, decline, rarity and the significance of the local population. The conservation requirements of the local and national priority species, and the species of conservation concern should be taken into account when undertaking habitat level conservation. Policies within the Waste Plan should, where possible, aim to meet the conservation requirements of local and national priority species of conservation through habitat restoration.

24 Several species are either extinct or possibly extinct in the county. It is important to take account of those species once occurring in Dorset that have disappeared. Where these species persist elsewhere, they may return of their own accord if conditions are suitable.

Marine Biodiversity

25 Two marine natural areas cover the seas off the Dorset coast. Marine natural areas are areas of sea around England each with their distinctive wildlife and underlying geology. Identified by Natural England, they emphasise the importance of natural processes, the interaction between these, geology, and wildlife. They offer a framework to help develop an ecosystem approach to managing human uses of the marine environment.

26 The South Western Peninsula Marine Natural Area extends from from Portland Bill around the south west peninsula to Brean Down just south of Weston-super-Mare on the southern side of the Severn Estuary. The inshore boundary of the South Western Peninsula Natural Area is delimited as Mean Low Water (MLW) and the offshore boundary is at the limit of UK jurisdiction. The area above MLW is included within Natural England's coastal series of natural areas.

27 The Eastern Channel Marine Natural Area extends from Portland Bill eastwards towards Dover. Much of the seabed of the Eastern Channel Natural Area is composed of mixed sand and gravel sediments, particularly to the south and west of the Isle of Wight. There is a UK Biodiversity Action Plan for sublittoral sands and gravels. Certain areas of chalk substrate present within the Natural Area (particularly south of the Isle of Wight) are nationally and internationally important and are protected under the EC Habitats Directive as reef habitat. There is also a Biodiversity Action Plan for 'Littoral and sublittoral chalk reefs'.

28 Two emerging SACs with marine components fall within the Plan area. Such designations are defined as those that contain qualifying marine habitats or species. The Lyme Bay and Torbay Site of Community Importance (SCI) is a site that has been adopted by the European Commission but not yet formally designated by the UK government as SAC. It contains reefs and submerged or partially submerged sea caves. The Studland to Portland candidate SAC, also contains reefs. Its status as a candidate means that it has been submitted to the European Commission, but not yet formally adopted. As an SCI and cSAC respectively, the Conservation Regulations apply to these two sites.

Geodiversity - Baseline

Introduction

29 Geodiversity is the range of rocks, fossils, minerals, soils, landforms and natural processes that constitute and shape the Earth's landscape and structure. It can be protected for its intrinsic value; its ecological value; its scientific value; its heritage value, and its educational value.

30 The national network of geological exposures acts as a source of scientific information about the history of the earth. Geological sites in Dorset include exposures of local scientific significance as well as sites that are internationally important. Geodiversity plays a major role in defining landscapes as it is the diversity of England's geology and natural processes that has produced the wide range of landforms and soil types. These influence land use, the distribution and nature of habitats and the character and location of our cities and towns. Geodiversity has provided some spectacular landscapes in Dorset, such as the Jurassic Coast, which are an integral part of Dorset's heritage. Sites are often of great recreational and tourism value, inspiring people to enjoy or learn about nature, as well as of economic value.

31 Geodiversity also underpins biodiversity since the complex relationships between geology, natural processes, landforms, landscape, soils and climate are fundamental to the distribution of habitats and species.

Geodiversity in Dorset

32 Much of West Dorset is formed from Jurassic sediments that record changing marine conditions and contain an exceptional fossil record. Cretaceous Chalk and sands lie uncomfortably across the central swathe of Dorset covering much of the Jurassic outcrop. In the east of the county, more recent deposits of the Cenozoic, sands, gravels and clays overlie the Cretaceous rocks. These deposits give rise to important heathland habitats.

33 In the north and west of Dorset the distinctive Inferior Oolite was widely quarried for local building stone. This diverse geology gives rise to landforms which in turn provide us with a diverse geomorphology, range of soil types, natural landscape, biodiversity and wealth of nature. The importance of these features as part of Dorset's landscape is reflected in the designation of over half the county as AONB.

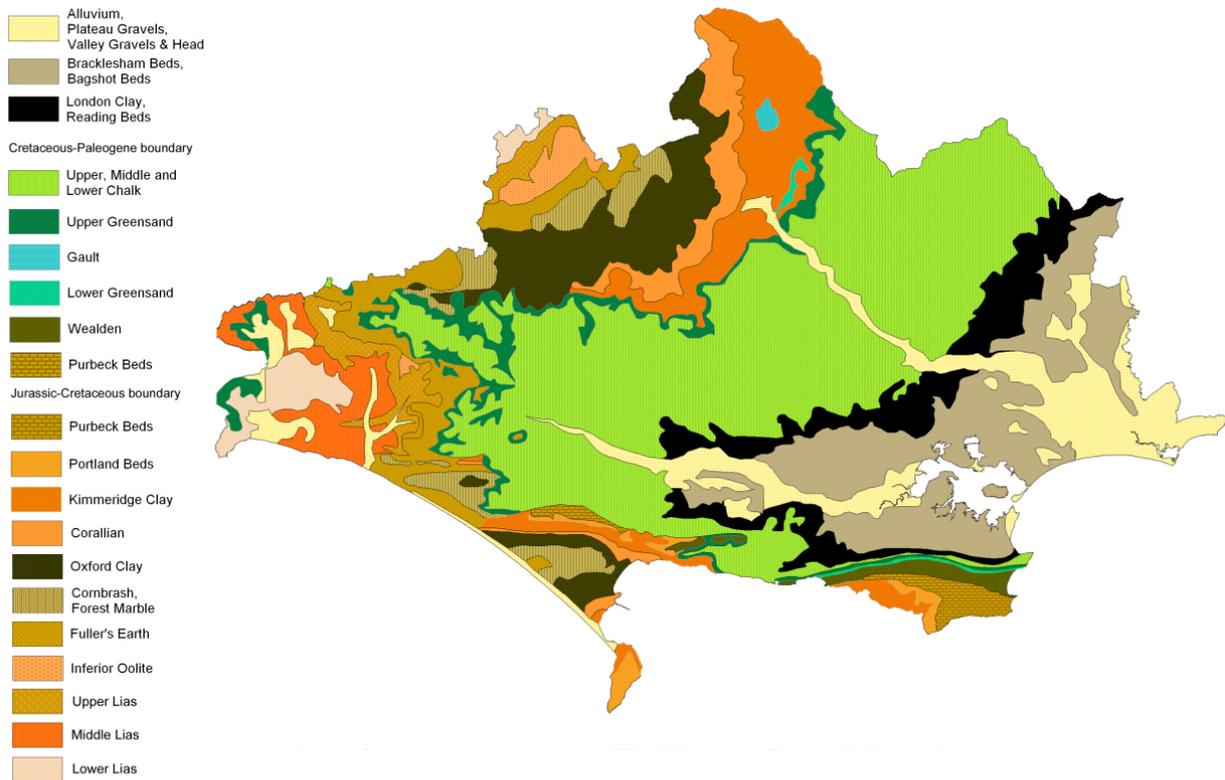
34 The coastal geodiversity of the county is exceptional and varied, leading to its designation as World Heritage Site. This is described in more detail below.

35 Chesil Beach is located in the south of the county. It is one of the world's finest barrier beaches and is of international importance for birds and wildlife, protecting the inland water known as The Fleet. Elsewhere, the structural ridges and upturned strata of the Isle of Purbeck and the Weymouth anticline lead to a dramatic landscape.

36 The use of local building stone across Dorset has added a local heritage dimension to geological conservation as well as giving towns and villages their distinctive character. Use of local stone for building conservation can enhance geodiversity by creating fresh exposures and opportunities for study. Small quarries that once supplied stone for communities can therefore be protected for their geological and local heritage value.

Figure 5 Simplified Geology

Simplified Geology of Dorset



Geological Designations

37 Dorset is rich in geodiversity and its designations reflect this. Dorset is home to the only natural World Heritage Site in the country, designated for its geological importance, as well as a number of SSSIs designated for their geological interest, plus locally designated Local Geological or Geomorphological Sites (formerly RIGS).

38 The Dorset and East Devon Coast, or 'Jurassic Coast', running between Exmouth (East Devon) and Old Harry Rocks (Purbeck, Dorset) was awarded the status of UNESCO World Heritage Site (WHS) status in 2001 primarily because it depicts a geological 'walk through time' spanning the Triassic, Jurassic, and Cretaceous periods. It covers 95 miles of stunning coastline, with rocks recording 185 million years of the Earth's history. The fossils from these rocks record of the evolution of life and the variety of rock types exposed on the coast give rise to a diverse range of natural landforms and processes.

39 Its designation affords international protection to the coastline and has exceeded expectations in bringing economic, social and cultural benefits to the region. ⁽³⁾ The objectives of the World Heritage Site Management Plan include the protection and enhancement of both the site itself and its setting. The objectives of the management plan will need to be considered in developing waste policies.

3 Source: www.Jurassiccoast.com

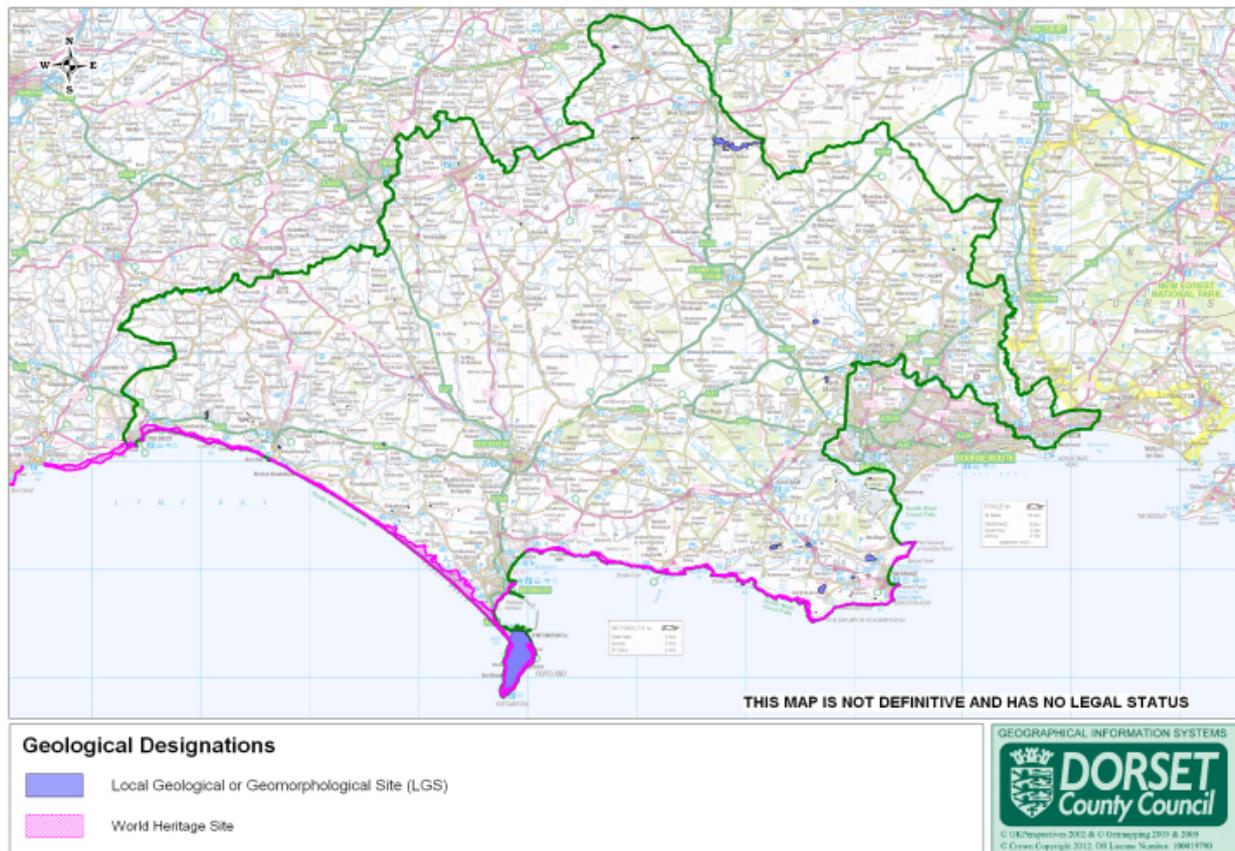
40 Many SSSIs in Dorset include important geological features, including fossils, mineral and rock deposits, which include Povington and Grange Heaths, the South Dorset Coast SSSI, Studland and Godlinton Heath and the SSSI sites around Poole Harbour. The distribution of SSSIs is illustrated in Figure 3.

41 Dorset and East Devon's coastline has 66 Geological Conservation Review Sites, all of national and international importance within earth science. Such sites form a national inventory of Britain's important Earth heritage sites. They essentially define the interests that are protected through the SSSI network. The protection of the World Heritage Site comes primarily from the SSSI network, where the various specific interests are described by the geological conservation review, as well as through the presence of the AONBs covering the coastline.

42 Geological sites of county importance have their own designation as Local Geological or Geomorphological Sites (LGS) .

43 They are non-statutorily protected sites of regional and local importance for geodiversity (geology and geomorphology) that have been locally designated by Dorset's Important Geological Sites Group. There are currently 63 LGS' in Dorset covering 1,448ha, including the designation of the whole of Portland as an LGS. The sites may be designated for their value to Earth science, and to Earth heritage in general, and may include cultural, educational, historical and aesthetic resources. Figure 6 illustrates the geographic distribution of LGS' throughout Dorset and shows the location of the World Heritage Site. ⁽⁴⁾

Figure 6 Geological Designations



Summary of relevant policy documents - Biodiversity and Geodiversity

N.B. More detail on these and other policy documents is included at the end of this topic paper.

Table 2 Key messages from relevant policy

Policy Documents	Relevance to Waste and Minerals Plans
<p>Key International Policy</p> <ul style="list-style-type: none"> • Directive 79/409/EEC on the conservation of wild birds (The Birds Directive) • Ramsar Convention on Wetlands of International Importance • Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (The Habitats Directive) 	<ul style="list-style-type: none"> • The various policy documents establish the importance of protecting and enhancing biodiversity and geodiversity through the development of planning policy documents. • Establishes the hierarchy of sites designated for nature conservation or geological interest and the relative levels of protection afforded to the various sites. • Importance of maintaining a appropriate network of habitats and links/wildlife corridors between these habitats. • There is a requirement to ensure that the integrity of European sites is not affected by waste or minerals development.
<p>Key National/Regional Policy</p> <ul style="list-style-type: none"> • Wildlife and Countryside Act 1981 (as amended) • Natural Environment and Rural Communities Act 2006 	

Policy Documents	Relevance to Waste and Minerals Plans
<ul style="list-style-type: none"> • Countryside and Rights of Way Act 2000 • Conservation of Habitats and Species Regulations 2010 • National Planning Policy Framework • UK Biodiversity Action Plan 1994 • The UK Post-2010 Biodiversity Framework 2012 • Securing the Future - UK Government Sustainable Development Strategy 2005 • UK Geodiversity Action Plan • Biodiversity 2020 - A Strategy for England's Wildlife and Ecosystem Services 	<ul style="list-style-type: none"> • Raises the issue of cumulative impacts and the need to take these into account. • Establishes the need for waste and minerals development to take into account the various environmental or geomorphological designations (particularly the reasons for their designation) and ensure that appropriate measures are built into the emerging policy document to protect the sites and where appropriate their surroundings, and to mitigate any possible effects of essential development.
<p>Key Local Policy</p> <ul style="list-style-type: none"> • Dorset Biodiversity Strategy • Dorset and East Devon Coast World Heritage Site Management Plan 2009-2014 • Dorset Local Geodiversity Action Plan • The State of Dorset's Environment (October 2014) • Biodiversity Indicators Report March 2014 • Biodiversity Indicators Report Marine 2014 	

Potential impacts related to waste and minerals

Biodiversity

- Loss or fragmentation of habitats - waste infrastructure can act as an impenetrable barrier for certain species and can restrict movement between populations; mineral extraction can lead to loss of biodiversity
- The impact development could have on the heaths is a key consideration for development plans and proposals in Dorset, with an interim framework having been adopted and a specific DPD being developed to address this issue across the administrative boundaries within Dorset.
- Changes in noise, vibration, light emissions and dust deposition can affect species and result in behavioural changes
- Changes in air quality with emissions of air pollutants having potential to affect sensitive sites
- Changes in patterns of human activity and associated disturbance or damage
- Hydrological and water quality changes affecting surface and/or ground waters - waste infrastructure can lead to contamination through for example leachate produced as waste decomposes; quarrying can have significant impacts of hydrology; it can also have benefits through reduction of nitrate inputs
- Changes in habitat management, including neglect
- Changes in soil conditions
- Changes in numbers of predators (including scavenging animals) and/or prey
- Introduction of inappropriate new habitats and/or species
- Restoration to agriculture following minerals or waste operations has the potential to contribute to the nitrate loading of the Poole Harbour catchment, which may adversely affect water quality and habitats in the harbour.

Geodiversity

- Loss of geological exposures
- Loss of existing geomorphological features
- Inappropriate restoration of mineral sites leading to obscuring and loss of existing geological exposures by landfilling or backfilling with mineral waste.
- Loss of safe access to geological sites

Issues relevant to Biodiversity and Geodiversity

- The provision of sites for waste management and/or mineral extraction has the potential to impact on Dorset's biodiversity, flora and fauna, and geodiversity.
- A strategic approach should be taken to the conservation and enhancement of biodiversity and geology with the Waste Plan and Mineral Sites Plan being informed by the larger functional scales of ecosystems, catchments and landscapes. The precautionary principle should be applied to biodiversity issues and geodiversity features, but as far as possible policies should also be based upon up-to-date information.
- The Waste Plan and Mineral Sites Plan must respect the primacy of European Natura 2000 sites both within and adjoining Dorset and comply with the requirements of Appropriate Assessment under the Habitats Directive. The location of sand and ball clay quarries, some of which have been or are being restored through landfill of household waste, in close proximity to SACs and SPAs (mainly the Dorset Heathlands) has the potential for continued conflict between the conservation of important habitats and waste disposal.
- Appropriate regard should be attached to international, national and locally important habitats and species, as well as the wider environment. Both the CRoW Act and NERC Act place duties on local authorities with respect to the conservation of biodiversity.
- Net biodiversity gains should be sought through the restoration of waste sites, where appropriate, positive management and the creation of new habitats.
- Conservation of geodiversity should be given significant weight and its interconnection with the biodiversity conservation taken into account.
- Landfill of quarries may put geodiversity at risk through the loss or covering of exposures. It may also put biodiversity at risk where recolonisation has taken place.
- Geodiversity gains should be sought through the creation of geological exposures and the positive management and afteruse of minerals and waste sites where appropriate.
- Dorset has a rich geological resource, recognised by a range of designations, which should be protected and, where possible, enhanced. The significance of the World Heritage Site should be respected.
- The Waste Plan and Mineral Sites Plan should promote the geodiversity objectives of the World Heritage Site Management Plan and Local Geodiversity Action Plan.

Suggested Sustainability Objectives

To maintain, conserve and enhance biodiversity.

To maintain, conserve and enhance geodiversity.

... And Broad Indicators

"To what extent does the strategic option, objective, strategy or policy..."

- Conserve, enhance or create natural and semi-natural habitats of recognised ecological value and/or the green corridors that link them?
- Avoid direct or indirect impacts on internationally or nationally or locally designated or recognised sites or UK BAP habitats?
- Conserve or enhance species diversity and avoid harm to internationally and nationally protected, scarce and rare species (including UK BAP species)?
- Provide for positive management of existing habitats?
- Conserve or enhance the Wild Purbeck Nature Improvement Area?
- Assist species to adapt to the anticipated effects of climate change? (i.e. through connecting habitats and/or providing greenspace)?
- Reflect the South West Nature Map?
- Expand the spatial extent of BAP priority habitat within Dorset?
- Contribute to an adverse cumulative impact of development on biodiversity?
- Conserve or enhance the World Heritage Site and its setting?
- Conserve or enhance geological SSSIs?
- Create, extend or enhance Local Geological Sites?
- Allow access to geodiversity resources for study?

Relevant Policy Documents: Biodiversity and Geodiversity

Table 3

<i>International Legislation/Policy</i>
<p>Bern Convention on the Conservation of European Wildlife and Natural Habitat (1979)</p> <p>The Convention aims to ensure conservation of wild flora and fauna species and their habitats. Special attention is given to endangered and vulnerable species. The parties undertake to take all appropriate measures to ensure the conservation of the habitats of the wild flora and fauna species and these included in planning and development control policies and pollution control. The aims of the Convention are threefold:</p> <ul style="list-style-type: none"> • To conserve wild flora and fauna and natural habitats. • To promote co-operation between states. • To give particular attention to endangered and vulnerable species. <p>Implications:</p> <p>The Waste/Minerals Plans must have regard for the conservation of endangered and vulnerable species. Its policies and proposals must take into consideration the protection and conservation of these species and their habitats.</p>
<p>Bonn Convention on Conservation of Migratory Species (1979)</p> <p>The convention aims to conserve terrestrial, marine and avian migratory species throughout their range.</p> <p>Implications:</p> <p>The Waste/Minerals Plans should reflect the Convention’s objectives and seek to protect and conserve wild animals and migratory species.</p>
<p>Council Directive 79/409/EEC on the conservation of wild birds (The Birds Directive) (1979)</p> <p>The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe, and covers their protection, management, control and exploitation. It applies to the birds, their eggs, nests and habitats. The preservation, maintenance and re-establishment of biotopes and habitats should include primarily the following measures:</p> <ul style="list-style-type: none"> • Creation of protected areas; • Upkeep and management in • accordance with the ecological needs of habitats inside and outside the protected zones; and • Re-establishment of destroyed biotopes. <p>Implications:</p> <p>The Waste/Minerals Plans should seek to protect populations of protected or notable species through careful site selection and development control policies.</p>

Ramsar Convention on Wetlands of International Importance (1971)

"The Convention on Wetlands of International Importance, Especially as Waterfowl Habitats," (The Ramsar Convention) is an intergovernmental treaty that aims to stem the progressive encroachment on and loss of wetlands now and in the future. The Convention makes the following commitments:

- Wetland sites will be included in the list of wetlands of international importance and their conservation and wise use will be promoted
- Wetland conservation considerations will be incorporated in national land-use planning; and
- Nature reserves will be established in wetlands, whether or not they are included in the Ramsar List.

Implications:

The Waste/Minerals Plans must take into account the conservation and promotion of wetlands in Dorset where these may be affected by waste developments. They must avoid the effects of waste facilities on populations of protected or notable species.

Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (The Habitats Directive) (1992)

This Directive is the means by which the Community meets its obligations as a signatory of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention). It provides legal protection for habitats and species of European importance and tackles the long-term decline in European biodiversity arising from the destruction and degradation of habitat as well as species persecution and exploitation and aims to maintain and restore sites to their best condition. This is implemented through a network of protected European sites, referred to as European sites.

Articles 6(3) and 6(4) of the Habitats Directive requires Appropriate Assessment of plans and projects likely to have a significant effect on a European site. This means that the effects of such plans or projects on European sites need to be assessed to ensure that the integrity of these sites is maintained. The Directive is implemented through the Conservation of Habitats and Species Regulations (2010), see below.

Implications:

The requirements of the Directive will be taken into account in the development of the Waste/Minerals Plans. The WPA/MPA should seek to avoid waste development which would affect the integrity of European sites. Where the WPA/MPA allows development that will negatively affect relevant sites, compensatory measures must be provided for.

National Legislation/Policy

Conservation of Habitats and Species Regulations 2010

Known as the Conservation Regulations, these regulations implement the Habitats Directive and the Birds Directive. They make it an offence to deliberately kill, capture or disturb a European Protected Species, or to damage or destroy the breeding site or resting place of such an animal.

The precautionary principle is applied to the protection of European sites. This means that plans and projects can only be taken forward if it is ascertained that there will be no adverse effect on the integrity of a European site.

The Regulations allow plans and projects to be permitted only if there are no alternatives and there are imperative reasons of overriding public interest as to why they should go ahead. In such cases, compensation would be necessary to ensure the overall integrity of the European site network, and in agreement with the European Commission.

Appropriate Assessment in line with the Conservation Regulations is required where policies within a plan would have likely significant effects on a European site (either on their own or in-combination with other policies, including those in other plans).

Implications:

The Waste/Minerals Plans must ensure protection of European sites in relation to their flora and fauna, and provide that compensatory measures are required where damage may occur through development. The requirements of the regulations will be taken into account in preparing the Waste Plan and Mineral Sites Plan, and its policies will need to be screened to ascertain whether appropriate assessment is necessary.

The Wildlife and Countryside Act 1981 (WCA, 1981) consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive) in Great Britain.

The Act covers protection of wildlife (birds, and some animals and plants), the countryside, National Parks, and the designation of protected areas, and public rights of way.

Implications:

The Mineral/Waste Planning Authorities must comply with the legislation and work to protect and enhance biodiversity through careful siting of facilities and policies to protect biodiversity.

The Countryside and Rights of Way Act 2000

- Nature Conservation and Wildlife Protection: A duty is placed on Government Departments to regard conservation of biodiversity as an important consideration;
- Changes to the Wildlife and Countryside Act 1981: Provides increased powers for the protection and management of SSSIs. The Act introduces an increase in penalties on conviction where the provision is breached, with a new offence whereby third parties can be convicted for damaging SSSIs; and
- Areas of Outstanding Natural Beauty: Requires local authorities to produce management plans for each AONB. The Act requires relevant authorities to have regard to the purpose of conserving and enhancing the natural beauty of AONBs when performing their functions.

The WPAs can play a role in safeguarding wildlife and sensitive habitats. It must seek to protect wildlife and sensitive habitats wherever possible.

Implications:

While preparing the Waste/Minerals Plans the requirements of the Act should be taken into account.

Natural Environment and Rural Communities Act 2006

The NERC Act requires that, from 1 October 2006, all local authorities and other public authorities in England and Wales have a duty to promote and enhance biodiversity in all of their functions.

Implications:

While preparing the Waste/Minerals Plans, the requirements of the Act should be taken into account.

National Planning Policy Framework

The National Planning Policy Framework (NPPF) was published on 27 March 2012. It sets out the Government's planning policies for England and how these are expected to be applied to protect the environment and to promote sustainable growth.

One of the core planning principles set out in the NPPF is to "contribute to conserving and enhancing the natural environment and reducing pollution." It states that allocations of land for development should prefer land of lesser environmental value. Furthermore, an element of pursuing sustainable development is stated to be "moving from a net loss of bio-diversity to achieving net gains for nature."

The NPPF states that the planning system should contribute to and enhance the natural and local environment in a number of ways, including through protecting and enhancing geological conservation interests; recognising the wider benefits of ecosystem services; minimising impacts on biodiversity; and providing net gains in biodiversity where possible. It goes on to state, under paragraph 117, that planning policies should minimise impacts on biodiversity and geodiversity through planning for biodiversity at the landscape scale; identifying and mapping components of the local ecological networks; promoting the preservation, recreation and restoration of priority habitats and ecological networks; and aiming to prevent harm to geological conservation interests. Additionally, it is stated that where Nature Improvement Areas are identified, the types of development that may be appropriate in these areas could be specified.

The NPPF provides guidance for proposals affecting World Heritage Sites, stating that substantial harm to or loss of designated heritage assets of the highest significance, including World Heritage Sites, should be wholly exceptional.

Implications:

The policy guidance contained within the NPPF will be fundamental to the preparation of the Waste/Mineral Plans.

Ramsar Sites in England - A Policy Statement (DEFRA 2006)

This statement sets out the Government's policies for the protection and management of Ramsar sites in England of which there were 75 covering over 361,000 hectares at the end of May 2000. Matters relating to the management and protection of Ramsar sites in Scotland, Wales and Northern Ireland fall to the devolved administrations of those countries.

Implications:

The Waste/Minerals Plans must take into account the conservation and promotion of wetlands in Dorset where these may be affected by waste developments.

UK Post 2010 Biodiversity Framework

Parties to the Convention on Biological Diversity are committed to produce a National Biodiversity Strategy and/or Action Plan. Published in July 2012, the UK Biodiversity Framework replaced the UK Biodiversity Action Plan (1994).

The purpose of the Framework is to set a broad enabling structure for action across the UK up to 2020:

- i. To set out a shared vision and priorities for UK-scale activities, in a framework jointly owned by the four countries, and to which their own strategies will contribute.
- ii. To identify priority work at a UK level which will be needed to help deliver the Aichi targets and the EU Biodiversity Strategy.
- iii. To facilitate the aggregation and collation of information on activity and outcomes across all countries of the UK, where the four countries agree this will bring benefits compared to individual country work.
- iv. To streamline governance arrangements for UK-scale activity.

A number of strategic goals are set out, which align with the Strategic Plan for Biodiversity 2011-2020 (CBD, 2010). For each goal, the Framework lists the key actions for the UK. The goals are as follows:

- Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society.
- Reduce the direct pressures on biodiversity and promote sustainable use.
- To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity.
- Enhance the benefits to all from biodiversity and ecosystems.
- Enhance implementation through participatory planning, knowledge management and capacity building.

Implications:

Where possible, ensure that minerals and waste development takes into account the objectives of the Framework.

UK Geodiversity Action Plan

The UK Geodiversity Action Plan (GAP) provides a framework for geodiversity action across the UK. It sets out six overall themes within which national objectives for geodiversity are identified. The themes are:

- Furthering our understanding of geodiversity
- Influencing planning policy, legislation and development design
- Gathering and maintaining information on our geodiversity
- Conserving and managing our geodiversity
- Inspiring people to value and care for our geodiversity
- Sustaining resources for our geodiversity

A key aim of the UK GAP is to increase awareness of the importance of geodiversity. The UK GAP highlights that it is important to understand that through looking after our geodiversity we are not only conserving our wildlife and habitats but also creating a world that is more resilient to environmental change and providing resources essential for our own well being.

Implications:

Where possible, ensure that minerals/waste development takes into account the aims and objectives of the action plan. The Waste/Minerals Plans should integrate with the relevant local action plan for Dorset.

The UK Post-2010 Biodiversity Framework 2012

Since the publication in 2007 of Conserving Biodiversity – the UK approach, the context in which the Convention on Biological Diversity (CBD) is implemented in the UK has changed. Strategic thinking in all the four countries (England, Northern Ireland, Scotland and Wales) has pursued a direction away from a piecemeal approach dealing with different aspects of biodiversity and the environment separately, towards a new focus on managing the environment as a whole, with the true economic and societal value of nature properly acknowledged and taken into account in decision-making in all relevant sectors.

The purpose of this UK Biodiversity Framework is to set a broad enabling structure for action across the UK between now and 2020:

1. To set out a shared vision and priorities for UK-scale activities, in a framework jointly owned by the four countries, and to which their own strategies will contribute.
2. To identify priority work at a UK level which will be needed to help deliver the Aichi targets and the EU Biodiversity Strategy.
3. To facilitate the aggregation and collation of information on activity and outcomes across all countries of the UK, where the four countries agree this will bring benefits compared to individual country work.
4. To streamline governance arrangements for UK-scale activity.

Implications:

The objectives of this document will be taken into account in the production of the Waste/Mineral Plans.

Biodiversity 2020 - A Strategy for England's Wildlife and Ecosystem Services (2011)

This new, ambitious biodiversity strategy for England builds on the Natural Environment White Paper and provides a comprehensive picture of how we are implementing our international and EU commitments. It sets out the strategic direction for biodiversity policy for the next decade on land (including

rivers and lakes)⁵ and at sea. It builds on the successful work that has gone before, but also seeks to deliver a real step change.

The mission for this strategy, for the next decade, is: to halt overall biodiversity loss, support healthy well-functioning ecosystems and establish coherent ecological networks, with more and better places for nature for the benefit of wildlife and people.

Implications:

The objectives of this document will be taken into account in the production of the Waste/Mineral Plans.

Keepers of Time: A Statement of Policy for England's Ancient & Native Woodland (Defra and Forestry Commission, 2005)

This statement updates the government's policy towards woodlands and trees by re-emphasising their value, evaluating threats and opportunities and setting out a range of actions to improve their protection and quality. Policies include:

- The existing area of ancient woodland should be maintained and there should be a net increase in the area of native woodland.
- Ancient and native woodland and trees should make an increasing contribution to our quality of life.
- Ancient and native woodland and trees should be exemplars of sustainable development, and provide opportunities for enterprise and employment.
- The ecological condition of ancient and native woodland should be improved and maintained.
- Rare, threatened or Priority species associated with ancient and native woodland should be conserved and enhanced.
- The cultural heritage associated with ancient woodland and veteran trees should be protected and conserved.
- The landscape context of woodland should be improved.

Targets:

- Existing area of ancient woodland maintained.
- Net increase in area of other native woodland.
- No significant or unnecessary losses of known veteran trees.
- Increase in the number of people visiting woodlands for leisure purposes.
- Increase in the proportion of the population with access to woodland near to where they live.
- Increase in the number of enterprises and/or jobs directly or indirectly associated with ancient or native woodland.
- All widespread and serious threats to ancient and native woodland being reduced.
- The majority of ancient woodland sites either being improved or under gradual restoration to native woodland.

- 95% of woodland SSSIs in favourable or recovering condition (by 2010).
- Reversal of the long-term decline in the numbers of woodland birds.
- Enhanced habitat quality and plant diversity in broadleaved woodlands.
- Improvement in the status of woodland Priority species (i.e. the 67 species with action plans in the UK Biodiversity Action Plan).
- Local communities increasingly aware of the heritage and environmental value of ancient and native woodland.
- An increase in the area of broadleaved woodland in landscape character areas where there is recognised as a positive change.
- The visual and ecological landscape context of the majority of ancient woodland improved.

Implications:

The objectives of this document will be taken into account in the production of the Waste/Mineral Plans.

Regional policy

Our Environment: Our Future – the Regional Strategy for the South West Environment 2004-2014 (SWRA, 2004)

The purpose of the strategy is to generate awareness of the importance of the South West environment, identify priorities for protecting and enhancing the environment and to provide a framework for action in the South West.

Aims:

- Safeguard and manage the elements of the environment that underpin local distinctiveness.
- Use natural resources efficiently and wisely.
- Protect and enhance biodiversity and geological features across urban, rural, coastal and marine environments.
- Maintain and restore ecosystems so that they function in a way that will support the region's wildlife.
- Sensitively manage existing habitats.
- Increase the area of existing habitats and re-establish links between fragmented sites.
- Improve sustainable access for everyone to a thriving and enhanced environment.
- Increase people's sense of responsibility towards the environment through greater understanding and enjoyment of it.

The Strategy is supported by a comprehensive framework of targets and indicators, with the following targets being of particular relevance to the Waste Plan:

- Bring into favourable condition by 2010 95% of all nationally important wildlife sites.
- Maintain and increase populations of key species in the South West in line with UK Species Action Plan targets.
- Achieve sensitive management of existing BAP habitats.
- Maintain and increase area of biodiversity habitats in the South West in accordance with targets in RPG10.
- Maintain and improve local environmental quality

Implications:

The objectives of this document will be taken into account in the production of the Waste/Mineral Plans.

South West Biodiversity Implementation Plan (South West Regional Biodiversity Partnership, 2004)

The SW Biodiversity Implementation Plan (BIP) sets out a framework of policy, priorities and actions to assist in a more joined up approach to biodiversity delivery. The BIP is a contribution to the 'Biodiversity Strategy for England' and seeks to contribute to regional strategies, plans and policies such as the Regional Spatial Strategy and regional agri-environment scheme targeting.

The SW BIP includes a regional Nature Map that highlights a series of landscape-scale Strategic Nature Areas (SNAs). These SNAs identify key areas within the region for the maintenance and expansion of wildlife habitats through their management, restoration and/or re-creation. They are a potentially useful tool in helping planners identify any areas or sites for the restoration or creation of new priority habitats which contribute to regional targets.

The priorities for biodiversity in the South West are set out, comprising:

- Maintain and enhance biodiversity by:
 - sensitively managing existing habitats.
 - expanding and re-establishing links between fragmented sites and, where appropriate.
 - managing at a larger, functional scale (landscape, ecosystem or catchment).
- Develop integrated sustainable land management practises – that safeguard and enhance the region's biodiversity whilst also bringing benefits to society, the economy and environment
- Increase awareness and understanding of the importance of biodiversity to the region's health, quality of life and economic productivity, and develop wider support and active engagement.
- Understand and manage the dynamic processes of change (e.g. climate change) and develop long-term sustainable approaches within the region that focus on the quality, extent and diversity of habitats.

The Plan's objectives include ensuring that we meet:

- our international commitments, in particular to halt biodiversity loss by 2010.
- the Defra Public Service Agreement Target to "Care for our natural heritage, make the countryside attractive and enjoyable for all and preserve biological diversity" by:
 - reversing the long-term decline in the number of farmland birds by 2020, as measured annually against under-lying trends;
 - and, bringing into favourable condition by 2010 95% of all nationally important wildlife sites.
- continuing and sustained improvement in the status of terrestrial and marine species and habitats listed on the Biodiversity Action Plan.

The Plan identifies five key sectors which each have their own objectives, indicators and targets, although a number have yet to be determined. Of particular relevance to the Waste Plan is the following target:

- All Local Plans/Local Development Frameworks to have comprehensive biodiversity policies.

Implications:

The objectives of this document will be taken into account in the production of the Waste/Mineral Plans.

RPG10: Regional Planning Guidance for the South West (GOSW: 2001) and Draft Regional Spatial Strategy for the South West 2006-2026 (SWRA: 2006)

Under powers provided through the Localism Act (2011), the Secretary of State has revoked the Regional Planning Guidance and Draft Regional Strategy documents. However, the evidence underpinning the Draft Regional Spatial Strategy will remain an important consideration for the Waste and Mineral Sites Plans.

Local policy

Dorset Biodiversity Strategy (2003) and Mid-term Review (2010)

The Dorset Biodiversity Strategy centres on 4 main issues (topics) and 3 common themes affecting biodiversity, tying them into the concept of sustainable development.

The topics are:

- Forestry and woodland management
- Agriculture
- Freshwater management
- Coastal and marine issues

Common themes:

- Land-use planning
- Data and monitoring
- Raising awareness and involvement

The strategy is Dorset's response to the governments UK Biodiversity Action Plan and its objectives are:

- To enhance the overall ecological quality, extent, capacity, structure and functioning of the ecological network through managing, restoring and monitoring existing, restored, enhanced and newly created habitats of importance, and
- To protect and enhance distinctive habitats and species.

The Strategy was designed to have a ten-year lifespan and to ensure it was still relevant, up-to-date and on schedule, a mid-term review was published in 2010.

The key components of the review were as follows:

- An assessment of actions taken since the document launch (categorised as either not yet started, underway or completed).
- An evaluation of those actions yet to be completed to determine priorities over the next five years.
- Suggestions for new action needed over the next five years for each of the different topics.
- Suggestions for strategic, local level and achievable action specific to climate change.

Implications:

The objectives of the Dorset Biodiversity Strategy should be taken into account in the development of the Waste Plan and Mineral Sites Plan.

Dorset and East Devon Coast World Heritage Site Management Plan 2009 - 2014

Aims include:

- Protection of the Site's Outstanding Universal Value and integrity
- Conserving and enhancing the Site and its setting
- To strengthen the understanding of the Outstanding Universal Value of the Site
- to support communities in realising the economic, social and cultural opportunities and benefits that World Heritage status can bring
- aspiring to improve appropriate and sustainable access to the Site and its setting
- to enable visitors to the Site and its setting to enjoy a welcoming experience and high quality facilities
- to support and demonstrate exemplary World Heritage Site management.

Implications:

The preservation and enhancement of the World Heritage Site should be taken into account in the development of the Waste Plan.

Dorset Local Geodiversity Action Plan (2005)

The objectives of the Action Plan are:

- To conserve and enhance geological resources.
- To provide guidance to the planning authorities on sustainable policies in the geological context.
- To increase appreciation and understanding of the geological heritage of the area.

Implications:

The objectives of the Dorset Local Geological Action Plan should be taken into account in the development of the Waste Plan. Policies should ensure the protection of geological interests.

The Dorset Heathlands Interim Planning Framework 2010-2011 (Bournemouth, Poole, Christchurch, Dorset County Council, East Dorset District Council, Purbeck District Council)

Local authorities in South East Dorset within 5 kilometres of European protected heathland have produced and agreed an interim strategy for the protection of the lowland heath. A three year framework was put in place in December 2006 and was rolled forward in 2010. Its purpose is to ensure that there is no net increase in urban pressures on the heaths as a result of additional residential development between 400 metres and five kilometres of heathland. The document sets out the approach that local authorities in South East Dorset will follow.

The Dorset Heathlands Joint DPD will provide the long term framework to replace the interim planning framework. It was hoped that by the end of 2011 the Joint DPD could have been put in place, however, this has not been the case. Therefore, to enable residential development to come forward in the meantime, the Dorset Heathlands Planning Framework SPD has been prepared. As of the 20th September 2012, the Dorset Heathlands Interim Planning Framework (2010-2011) will be superseded by the Dorset Heathland Planning Framework Supplementary Planning Document (SPD).

Implications:

Although primarily aimed at minimising the impacts of urban development, this approach will be relevant to waste development as well and the Waste Plan should therefore take into consideration the requirements of the Interim Framework/SPD.

The State of Dorset's Environment (October 2014)

The Natural Value report presents locally specific information to demonstrate both the environmental value of the area and the value of the area's environment. The report is produced by the Dorset Local Nature Partnership and is supported by the following background reports

- Biodiversity Indicators Report March 2014 - produced by Dorset Environmental Records Centre
- Biodiversity Indicators Report Marine 2014 - produced by Dorset Environmental Records Centre

Implications:

Data contained within the report and associated background papers should be taken into account in the development of the Waste Plan. Policies should ensure the protection of geological interests.