Appendix 2: Statement on the boundaries of the Site, and the World Heritage interests within them

A2-1 OVERVIEW

A2-1.1 The Dorset and East Devon Coast has been awarded World Heritage Site status on the basis of its global importance for the earth sciences. A detailed description of the boundaries of the Site, and the interests that lie within them is set out below.

A2-1.2 The boundaries of the Site have been defined to closely follow the earth science features that are of World Heritage interest. The landward boundaries are as follows:

- On cliff coastline, the boundary is taken at the break in slope at the top of the most landward cliff-scarp
- On coastline with no cliffs, the boundary is taken at the back of the beach
- The Site includes the Fleet lagoon and the boundary will be taken at the top of the low cliffs that lie on its northern shore.

The seaward boundary of the Site is taken as Low Water Mark.

A2-1.3 The Site excludes the frontages of some of the larger coastal towns: Sidmouth, Seaton, Lyme Regis, West Bay, Weymouth, Swanage, and also excludes the commercial port area at Portland. The resulting Site comprises eight stretches, as follows:

- Orcombe Rocks to Chit Rocks, Sidmouth
- River Sid, Sidmouth to Seaton Hole
- River Axe, Axmouth to The Cobb, Lyme Regis
- Lyme Regis to West Bay
- Chesil, the Fleet and Portland Coast
- Portland Harbour Shore
- Bowleaze Cove to Peveril Point
- New Swanage to Studland Bay

A2-1.4 Reference is made to three forms of designation that provide protection to the Site:

- Sites of Special Scientific Interest (SSSI): areas identified under the Wildlife and Countryside Act, 1981, which receive statutory protection because of their importance for wildlife and/or earth science;
- Areas of Outstanding Natural Beauty (AONB): areas identified under National Parks and Access to the Countryside Act, 1949, which receive statutory protection because of their landscape quality;
- Geological Conservation Review sites (GCR): sites identified following a national programme, carried out between 1977-1990, which identified the Earth Science sites of national and international importance in Britain. GCR sites therefore represent the series of the most significant geological and geomorphological sites within the UK, and generally receive specific protection through the Sites of Special Scientific Interest.

A2-1.5 Owing to the requirement to ensure the protection of the Site, a further general criterion for boundary setting is that only areas designated as AONB or SSSI are included within it. The description notes a few localities where this condition has been slightly modified to reflect particular circumstances.

A2-1.6 The criteria used to establish the initial boundaries of the Site will remain the basis for review of the boundaries in the future. It is implicit within these criteria that the precise location of the boundaries of the Site will change in the future as the physical form of the coast evolves, or if new evidence of the scientific importance of additional areas of the coast comes to light.

A2-1.7 There will be the need to define the precise location of the Site boundary from time to time. It is therefore considered that there should be a regular revision of the formally established boundaries of the Site, primarily to reflect changes to the coastline and the movement of the clifflines and beaches that define the extent of the Site. A small number of localities should be considered for inclusion in the future, depending on their notification for earth science reasons within the SSSI network. These localities are listed in the text below where relevant.

A2-1.8 The formal process of revision of the boundaries will be driven primarily by the survey timetables of the Ordnance Survey and the review and renotification of SSSIs by English Nature in relation to earth science interests. It is anticipated that a first review of the boundaries would be carried out not earlier than 2007, that is five years after the designation of the Site by UNESCO.

A2-2 SECTION 1: ORCOMBE ROCKS TO CHIT ROCKS, SIDMOUTH

AONB: Complete coverage, except for intertidal areas and Chit Rocks
SSSI: partial coverage
GCR sites: partial coverage, 6 sites

A2-2.1 The western boundary of this section of the Site, and of the Site as a whole is taken as grid reference 3018 0797 (SY018797), which is the western extent of GCR site 1506 (Orcombe Rocks, Permian - Triassic). This GCR site also lies within the Exe Estuary SSSI, and is cited as an earth science feature within it. From this point east, the Site includes continuous cliff face exposures of rock and coastal geomorphological features, and the boundaries of the Site are drawn as described in paragraph A2-1.2. Particular points to note with regard to the features included, and detailed boundaries of Section 1 are as follows:

a) This section of the Site lies within designated AONB, the boundary of which has been drawn at high tide;
b) Budleigh Salterton Cliffs is an SSSI notified only for its geological interests, and is covered by two GCR sites (1507 Budleigh Salterton, Permian - Triassic and 1837 Budleigh Salterton, Coastal Geomorphology of England). The boundary of the Site at Budleigh Salterton is taken as coinciding with the boundary of the SSSI that covers the cliffs fronting the town.
c) Otterton Point is a GCR site (813 Otterton Point, Permian - Triassic Reptilia) and this interest is also cited in the SSSI citation.
d) Ladram Bay-Sidmouth SSSI (3 separate sections) is listed as having importance for coastal geomorphology at Ladram Bay (also listed as GCR site 1839 Ladram Bay, Coastal Geomorphology of England), and for geology at High Peak and Chit Rocks (also listed as GCR site 814 High Peak, Permian - Triassic Reptilia).
e) The eastern boundary of this section coincides with the extent of the notified SSSI at Chit Rocks.

A2-2.2 This section contains a unique situation within the Site where an AONB has been drawn at high water mark, and only parts of the intertidal area are covered by SSSI. These intertidal areas are included within the Site because they are protected by designation as Coastal Preservation Area (CPA). The CPA is a well established Devon-specific designation, which provides the main lead for protective planning policy for the coastal sections of the AONB and the adjoining intertidal land.

A2-3 SECTION 2: RIVER SID, SIDMOUTH TO SEATON HOLE

AONB: Complete coverage, except intertidal area
SSSI: Complete coverage
GCR sites: Partial coverage, 2 sites

A2-3.1 This section of the Site covers cliff exposures and coastal geomorphological features that lie entirely within the Sidmouth-Beer Coast SSSI, and the East Devon AONB (boundary drawn at high water mark). It is partly covered by two overlapping GCR sites at its eastern end (632 East Cliff to White Cliff, Aptian – Albian and 204 Hooken Cliff, Cenomanian - Maastrichtian), the interests of both being described in the SSSI citation. The boundary is drawn within the SSSI to exclude areas of cliff top grassland and woodland.

A2-4 SECTION 3: RIVER AXE, AXMOUTH TO MONMOUTH BEACH, LYME REGIS

AONB: Complete coverage, except for intertidal area in Devon
SSSI: Complete coverage
GCR sites: Complete coverage, 6 sites (some in part)

A2-4.1 This section of the Site covers the Axmouth to Lyme Regis Undercliffs and important cliff exposures of geology. The entire site (with the exception of the intertidal area in Devon) is AONB. It also lies entirely within SSSIs that are cited for their earth science interest. The boundary of the Site can be regarded for practical purposes as coincident with the SSSI, although should strictly exclude a small area of clifftop grassland that lies within the SSSI above Lyme

Regis and is owned by the National Trust. The Site is entirely within GCR Site 800 (Axmouth to Lyme Regis, Mass Movement) and parts lie within the following sites:

- 1263 Culverhole Point, Rhaetian
- 1264 Pinhay Bay, Rhaetian
- 87 Pinhay Bay Fault Corner, Hettangian - Pliensbachian
- 916 Lyme Regis, Jurassic - Cretaceous Reptilia
- 2952 Lyme Regis, Mesozoic - Tertiary Fish/Amphibia

A2-5 SECTION 4: LYME REGIS TO WEST BAY

AONB: Complete coverage
SSSI: Complete coverage
GCR sites: Almost completely covered, 10 sites (some in part).

A2-5.1 This section of the Site includes coastal geological exposures, landslips and other geomorphological features. The entire area lies within AONB, and all but a small landslipped field at the Spittles lies within SSSIs notified for their earth science interest. Virtually all of the Site lies within GCR sites, with overlapping sites in several locations. The entire area to within 400m of its eastern boundary at West Bay lies within GCR site 87 (Pinhay Bay Fault Corner, Hettangian - Pliensbachian). Other GCR sites covering part of this section are as follows:

- 252 Seatown - Watton Cliff, Toarcian
- 546 Watton Cliff, Mesozoic Mammalia
- 794 Charmouth, Palaeoentomology
- 916 Lyme Regis, Jurassic - Cretaceous Reptilia
- 1321 Black Ven, Mass Movement
- 1330 Watton Cliff, Bathonian
- 2109 Golden Cap - Lyme Regis, Coastal Geomorphology of England
- 2901 Watton Cliff, Mesozoic - Tertiary Fish/Amphibia
- 2952 Lyme Regis, Mesozoic - Tertiary Fish/Amphibia

A2-5.2 Within this section, the boundary generally is coincident with the Site of Special Scientific Interest, with the following exceptions:

- the landward boundary is drawn at the base of the existing sea-wall to the east of Lyme Regis
- it excludes two fields within the Spittles that lie above the break of slope of the cliffs. This whole area is subject to active landslipping and the flexible approach to boundaries of the Site is particularly relevant for the future.
- It is drawn to exclude cliff-top grassland that is included in the SSSI but is unaffected by slippage.

A2-5.3 The eastern boundary of the Site at West Bay is taken as coincident with the SSSI boundary.

A2-6 SECTION 5: CHESIL, THE FLEET AND PORTLAND COAST

AONB: Partial coverage. Elsewhere, local Coastal Landscape protection policy is embodied within structure and local development plans
SSSI: Complete coverage, but on the Isle of Portland the boundary of the SSSI has been drawn at high water mark
GCR sites: Almost complete coverage, 14 sites

A2-6.1 This section of the Site covers the whole of Chesil Beach and the Fleet. It includes important cliff exposures of geology to the east of West Bay, within the low cliffs fronting the Fleet and on the Isle of Portland. It also includes landslides and other geomorphological features on the Isle of Portland. This section lies entirely within SSSIs notified for their geological and/or geomorphological interest. The central and northern part of Chesil lies within AONB, but the remainder and the whole of the island of Portland, and Portland Harbour do not. Parts of this site are adjacent to Portland and Weymouth Harbours. Chesil and the Fleet is a candidate Special Area of Conservation, under the EC Habitats Directive.

A2-6.2 The whole of Chesil Beach is a GCR Site (1800 Chesil Beach, Coastal Geomorphology of England) and the following GCR sites are also wholly or in part within this section:

- 51 Burton Cliff & Cliff Hill Road Section, Aalenian - Bajocian
- 432 Lynch Cove (East Fleet Exposure), Oxfordian
- 794 Charmouth, Palaeoentomology
- 996 Freshwater Bay, Portlandian - Berriasian
- 997 Tar Rocks, Portlandian - Berriasian
- 1000 West Cliff, Portlandian - Berriasian
- 1002 Yeolands - Grove Cliff, Portlandian - Berriasian
- 1198 West Cliff - Kingbarrow - Yeolands & Grove Cliff, Portland, Jurassic - Cretaceous Reptilia
- 1285 Blacknor, Mass Movement
- 1298 East Fleet - Small Mouth, Kimmeridgian
- 1603 Shipmoor Point - Butterstreet Cove, Bathonian
- 1643 Portland Bill, Portlandian - Berriasian
- 2380 Tidmoor Point - East Fleet Coast, Callovian

A2-6.3 On Portland the SSSIs are too extensive to provide appropriate boundaries to the Site in a consistent manner to elsewhere. The formal boundary of the Site is taken as follows:

a) The intertidal area is not included on Portland as it is not included within the SSSI
b) The boundary follows the brow of West Cliff, excluding Tout and Bowers Quarries
c) South of Blacknor to Pulpit Rock, the boundary follows the brow of the cliff and includes the raised beaches that lie within the SSSI
d) The raised beach between Pulpit Rock and Portland Bill is not included as it is excluded from the SSSI
e) On the east coast, north of Portland Bill it includes the raised beaches within the SSSI and follows the brow of the cliff to a point at grid reference 36870693
f) From this point north there are a number of disused quarries that emerge onto the cliffs and have been quarried out through the natural brow of the cliff. These are geologically important and are enclosed by a narrow coastal strip of SSSI. Since they expose rocks which can be presumed to have been those formerly exposed in the cliffs, the boundary of the Site is taken as coincident with the SSSI boundary from this point north to grid reference 36910702.
g) From this point north the boundary follows the landward break in slope of cliffs, generally following the SSSI boundary but excluding some adjoining cliff top land and quarries such as Broadcroft.
h) Finally, the boundary in the East Weares follows the SSSI boundary, as far as the route of the incline railway, excluding quarry exposures inland of that point. The Site excludes the former Kings Pier Hollow Rifle Range, which although designated as SSSI does not contain features of earth science interest..

A2-6.4 Most of this section raises no difficult issues in boundary setting. The inclusion of the cliff quarries on the south-east coast of Portland addresses a unique situation where the natural profile of the cliff has been lost, but excellent exposures exist within cliff-top quarries. The incline railway forms a convenient boundary in an area of former landslipping where a clear geomorphological limit to the Site is not easy to define.

A2-6.5 The drawing of the boundary to include the Quaternary raised beaches reflects the unique occurrence of these features within the Site, and their international earth science importance as set out in the SSSI citation.

A2-6.6 There are two boundary issues on Portland which derive from the present boundaries on the SSSI citation which were last notified in 1977. The first is that the SSSI currently excludes the natural coastal rock outcrops between Pulpit Rock and Portland Bill. The other anomaly is that the SSSI appears only to run to High Water Mark, contrary to normal practice in drawing SSSI boundaries elsewhere. These factors prevent these areas from being included in the Site currently and should be considered by English Nature as issues for resolution at the first revision of the World Heritage Site boundary.

A2-6.7 Portland Stone has an international status as a building stone, and this represents a strong associated interest with the earth science interests proposed for inclusion in the Site. The quarry landscape on Portland, including disused quarries within the Site, provides important evidence of the industrial archaeology of the stone industry.

A2-7 SECTION 6: PORTLAND HARBOUR SHORE

AONB: Not covered. Local Coastal Landscape protection policy is embodied within statutory land-use plans
SSSI: Complete coverage. The SSSI to the north of Ferrybridge is currently notified for its earth science importance, whilst the part to the south is notified on the basis of its biological interest
GCR sites: North of Ferrybridge the rock exposures are completely covered by three GCR sites. There is no GCR coverage to the south of Ferrybridge.

A2-7.1 The boundary of the Site within this section includes only the land within the SSSI to the north of Ferrybridge, it follows the SSSI boundary in its entirety from that point north. The Site includes the following GCR sites:

- 828 (Sandsfoot, Oxfordian)
- 1064 (Small Mouth Sands, Jurassic-Cretaceous Reptiles)
- 1298 (East Fleet - Small Mouth, Kimmeridgian)

A2-7.2 This is a clear example where the lateral extent of the notified earth science importance within an SSSI citation creates a grey area with regard to the definition of the boundary of the Site, because the SSSI lies outside of an AONB. Whilst there are earth science interests on Hamm Beach, and a geomorphological link to Chesil has been demonstrated, these interests are not reflected within the current SSSI citation. The criteria set for selection of the Site boundaries therefore require that the Hamm Beach is excluded from the Site at the present time. The Hamm Beach is an area which should be considered for inclusion within the Site at the time of the first revision of the boundaries of the Site, when the position in relation to its earth science importance within the SSSI network and the Geological Conservation Review has been looked at in more detail.

A2-8 SECTION 7: BOWLEAZE COVE TO PEVERIL POINT

AONB: Complete coverage, except to the west of Redcliff Point
SSSI: Complete coverage
GCR sites: Complete coverage for geomorphology and very extensively covered for geology, 26 sites in total.

A2-8.1 Section 7 includes exposed coastal geology and geomorphology between Furzy Cliff, near Bowleaze Cove and Peveril Point. The boundary follows a readily traceable cliff line throughout, and lies entirely within the South Dorset SSSI which is notified for its geological and geomorphological interest. The boundary does not include the full extent of the SSSI and excludes a number of substantial areas of cliff-top vegetation. The area to the west of Redcliff Point lies outside the South Dorset AONB but lies within an earth science SSSI, and is completely covered by two GCR sites (910 Osmington, Oxfordian and 1863 Furzy Cliff - Peveril Point, Coastal Geomorphology of England), with Furzy Cliff covered by a third site (163 Furzy Cliff, Overcombe, Jurassic - Cretaceous Reptilia) The area as a whole is covered by GCR site 1863 (Furzy Cliff - Peveril Point, Coastal Geomorphology of England) and extensively covered by a series of sometimes overlapping GCR sites as follows:

- 163 Furzy Cliff, Overcombe, Jurassic - Cretaceous Reptilia
- 208 White Nothe, Cenomanian - Maastrichtian
- 547 Durlston Bay, Mesozoic Mammalia
- 634 Worbarrow Bay, Aptian - Albian
- 635 White Nothe, Aptian - Albian
- 724 Durlston Bay, Portlandian - Berriasian
- 725 Cliff House, Portlandian - Berriasian
- 726 Houns Tout, Portlandian - Berriasian
- 793 Durlston Bay, Palaeoentomology
- 910 Osmington, Oxfordian
- 914 Durlston Bay, Jurassic - Cretaceous Reptilia
- 915 Broad Bench Cuddle (Gaulter Gap - Broad Bench), Jurassic - Cretaceous Reptilia
- 998 Tyneham Cap - Houns Tout, Kimmeridgian
- 1001 Winspit - Seacombe, Portlandian - Berriasian
- 1006 Dungy Head - Mupe, Portlandian - Berriasian
- 1060 Swyre Head - Chapman's Pool, Jurassic - Cretaceous Reptilia
- 1297 Ringstead, Kimmeridgian
- 1300 Black Head, Kimmeridgian
- 1628 Gad Cliff, Portlandian - Berriasian

- 1863 Furzy Cliff - Peveril Point, Coastal Geomorphology of England
- 2289 White Nothe - Bacon House, Alpine Structures of Southern England
- 2625 Lulworth Cove, Wealden
- 2626 Mupe Bay - Worbarrow Bay, Wealden
- 2627 Durdle Door, Wealden
- 2900 Durlston Bay, Mesozoic - Tertiary Fish/Amphibia

A2-9 SECTION 8: NEW SWANAGE TO STUDLAND BAY

AONB: Complete coverage
SSSI: Complete coverage
GCR sites: Complete coverage, 4 sites

A2-9.1 Section 8 includes exposed coastal geology and geomorphology between Swanage and the Cretaceous/Tertiary unconformity west of Old Harry Rocks. The boundary follows a readily traceable cliff line throughout the Site, and lies entirely within the Purbeck Ridge SSSI and Studland Cliffs SSSI which are both notified for geological and geomorphological interests. The boundary does not include the full extent of the SSSIs and excludes a number of areas of important cliff top vegetation. This section is entirely covered by four, partly overlapping GCR sites as follows:

- 206 Hand Fast Point - Ballard Point, Cenomanian - Maastrichtian
- 632 East Cliff to White Cliff, Aptian - Albian
- 1843 Ballard Down, Coastal Geomorphology of England
- 2288 Ballard Point - Studland Bay, Alpine Structures of Southern England

A2-9.2 The eastern boundary of the Site is drawn at the Cretaceous/Tertiary unconformity at the far south of Studland Bay. This lies within the SSSI below Warren Wood, approximately 1 km west of Old Harry Rocks.