

State of Conservation report – Summary and table to June 2010

The Earth science interests within the Site are primarily protected through the Site of Special Scientific Interest (SSSI) designations which are the responsibility of Natural England (previously English Nature). Natural England monitors the site condition through the English Nature Site Information System (ENSIS). ENSIS units typically are based on land ownership and can be assessed for both biological and geological interests. ENSIS looks for threats to the site through a series of questions and the answers to these questions define 'favourable' or 'unfavourable' site condition. The World Heritage Management Plan respects natural processes. Therefore, in some cases it is possible for interest features to be obscured by natural processes but still be regarded as in favourable condition.

Summary table for SSSI condition for geological interest:

| | Condition | Notes |
|-----------------------------|--------------|--|
| Exe Estuary | Favourable | |
| Budleigh Salterton Cliffs | Favourable | |
| Otter Estuary | Favourable | |
| Ladram to Sidmouth | Favourable | |
| Sidmouth to Beer Coast | Favourable | |
| Axmouth to Lyme Regis Under | Favourable | |
| West Dorset Coast | Favourable | |
| Chesil and the Fleet | Favourable | |
| Isle of Portland | Favourable | Many of the inland quarry sites that also make up the SSSI are unfavourable and/or declining |
| Portland Harbour Shore | Unfavourable | Earth science units in the cliff are unfavourable in places |
| South Dorset Coast | Favourable | |
| Purbeck Ridge (East) | Favourable | Areas of the SSSI outside the World Heritage Site boundary are unfavourable. |
| Studland Cliffs | Favourable | |

The detailed monitoring data based on individual ENSIS units and biological/geological interests can be accessed on line at www.natureonthemap.org.uk.

World Heritage Site monitoring

World Heritage Site monitoring focuses on the Geological Conservation Review (GCR) sites that define the Earth science interest. The GCR is a nationwide audit of the Earth science interest within the British Isles and has been undertaken by the Joint Nature Conservation Committee (JNCC). GCR sites represent the best places that record stages in the earth's ancient history, including the fossil record, structures and geomorphological processes. SSSI's cover distinct sections of coast while GCR sites define specific interests that may extend across more than one SSSI. Therefore World Heritage Site monitoring has integrated SSSI monitoring (through ENSIS) while looking at the specific GCR interest. This has created scope to capture more detail, enabling a history to be recorded including information that cannot be measured at any one point in time such as the fossils being found or the geomorphological events taking place. A unique monitoring database has been developed by the JNCC with the World Heritage Site Team in order to capture this monitoring data.

61 of the 66 GCR sites are in a 'favourable stable' condition while the remaining 5 are 'declining' or in 'unfavourable' condition, representing 7.5% of the GCR interests. These unfavourable interests represent a very much smaller proportion of the Site in terms of the physical area, (2% of the Site) as many GCR's are quite small in geographical extent. In other words, there are only a number of small, specific problem areas relative to the whole Site. The exception is the Portland Harbour Shore which does represent a considerable problem area. All unfavourable sites were in this condition before designation as a World Heritage Site and many represent a major challenge if they are to be improved.

Unfavourable Geological Conservation Review (GCR) sites are:

| CGR number and interest | Description and reason for unfavourable status |
|--|---|
| GCR 51 Aalenian – Bajocian (Inferior Oolite) | Relates to Burton Cliff Lane outside the Site and which is suffering from vegetation growth. |
| GCR 636 Albian – Aptian (Lower Greensand) | Punfield Cove , north end of Swanage Bay. Interest obscured by vegetation due to a decline in erosion rates. |
| GCR 724 Portlandian – Berriasian (Purbeck Beds) | Durlston Bay, Swanage interest obscured due to coastal defences that pre date designation. Defences cover a small proportion of the overall interest and therefore most of the site is still favourable. |
| GCR 828 – Oxfordian – Oxford Clay and Corallian Beds | Sandsfoot/Portland Harbour Shore . Decline of coast sections due to construction of the breakwaters together with <i>ad hoc</i> development, coast defence structures and failed buildings/garden debris on the foreshore. |
| GCR 1297 Kimmeridgian | Ringstead Bay interest obscured due to coastal defences that pre date designation. The interest is partly obscured by a recharged beach. held in place by terminal groyne. |
| GCR 1298 Kimmeridgian | East Fleet to Smallmouth Sands Debris on the foreshore. |

A more detailed report is available to accompany the appendix to this summary. What follows are records on a site by site basis between 2006 and 2011.

Issues measured against Aims 1 and 2 of the World Heritage Site Management Plan

Policy No. 1.1. Planning frameworks. Meetings have been held with all four District planners to discuss the Site in relation to the Local Development Frameworks but further progress is slow.

Policy No. 1. 2, 1.3, 1.4, 1.5 and 1.6

The interests of the World Heritage Site are maintained by erosion but that erosion threatens people, property and infrastructure. The main threat to the Site is the construction of coastal defences. The WHS team, advised by the Science and Conservation Advisory Group and WHS Steering Group, is of the view that a pragmatic approach should be taken. In some areas, small defences or works to maintain existing defences or beach management schemes can be undertaken without compromising the Outstanding Universal Value of the Site. The Shoreline Management Plan review for both the South Devon and Dorset SMP and the Poole and Bournemouth Bays SMP is currently under review and will be published later in 2010. This will define coastal management policy for the next 100 years. In many areas previous 'Hold the Line' policy will change to 'Managed Realignment' or 'No Active Intervention' which will favour the natural interests in the long term. In a few areas developing SMP policy may be at odds with the objectives of the Management Plan (the mouth of the River Sid and parts of the Portland Harbour Shore). The Coastal Pathfinder project led by Dorset County Council is currently exploring how to adapt to changes brought about by erosion and changing policy. The Strategic Monitoring Programme will provide a long term management tool for the coast. Monitoring is to a common standard that will deliver valuable information that will better inform future management.

Developments that might warrant future defences (Policy 1.4) have been granted on the Portland Harbour Shore and the Portland East Weares (marginal to the Site) but the exact impact cannot be determined at this stage. Development that might affect the setting of the Site (policy 1.5) remains an issue that needs further work in order to identify what type of development may represent a threat. Work to explore this issue is planned in this financial year (2010/11).

Policy 1.9. A licence has been granted to explore the potential for an offshore wind farm off the Purbeck coast but this is at a very early stage.

Policy 1.14, 1.15 and 1.16. Quarrying

Quarrying has a limited impact on the Site due to the strong planning controls, particularly within the Dorset and East Devon Areas of Outstanding Natural Beauty (AONB's). Portland is the exception as it lies outside the Dorset AONB. There is no protection for the landscape while extant planning permissions cover large areas of the Island. The Coastal Strip is a particular location where an extant permission includes parts of the Site, notably the Portland raised beach (GCR 1643) which will suffer an impact should quarrying proceed. Dorset County Council Minerals Planning have placed a modification order on parts of the coastal strip that restricts quarrying on the grounds of impact to the Special Area of Conservation but quite how this affects the overall permission remains to be resolved.

Policy 2.1. Small improvements to the Site condition have been achieved at Osmington and the Fleet Shore. The developing SMP and coastal pathfinder project will feed into Policy 2.3, the removal of redundant sea defences but this is a long term timescale. The planned removal of the WWII lookout on Peveril Point supports Policy 2.4.

Policy 2.5, 2.6 and 2.7 – Fossil collecting

Natural England/English Nature's policy at a national level is 'Responsible Collecting' which allows access and promotes collecting where appropriate and in a fashion that does not damage the site. Responsible collecting is promoted through all published materials. One challenge lies with the slowly eroding sections of the Site where in situ features are potentially vulnerable. Damage has been recorded at Tar Rocks on Portland as a result of inexperienced collecting.

The fossil collecting code of conduct for West Dorset has been in operation for twelve years now and a review is underway. Key issues relate to the poor rate of acquisition of specimens of key scientific importance, the lack of capacity within local museums to acquire specimens, the desire by some collectors to see a world class exhibition in West Dorset, the landmark legal action by the National Trust against one collector for failing to follow the code and ill informed tourist collecting, for which a summer fossil warden has been employed since 2007.

The West Dorset code does not apply to the Undercliffs National Nature Reserve but the interests and site are very similar. Concerns regarding a possible decline in the large ammonites on Monmouth Beach are the subject of a specific monitoring programme. Natural England's national policy on collecting has been informed by specific work in Dorset/Devon set out in a paper developing a site based approach to the management of palaeontological sites. Two individuals in the academic/geoconservation community remain highly critical of the approach to the management of fossil collecting along the Site.

Policy 2.8 A management plan has been developed for Horn Park Quarry, near Beaminster with the ambition of opening up this site for educational groups.

Policy 2.9 The Collecting Cultures 'Jurassic Life' Project led by the Dorset Museum Service and supported with funding from the Heritage Lottery and Dorset and Devon County Councils, has enabled collections and displays to be improved in nine museums along the coast. Discussions are ongoing with Lyme Regis Museum to support their ambition to expand. A temporary fossil exhibit is planned for the 2011 Lyme Regis fossil festival, involving local collectors, the county museum service and the Lyme Regis Museum.

Conclusions

The Site is in a favourable condition, similar to the condition when it was included on the World Heritage List by UNESCO in December 2001. Specific management initiatives are working well and new initiatives will greatly enhance knowledge and future management, particularly the Strategic Monitoring Programme. The Shoreline Management Plans remain the key vehicle for identifying sustainable management and future potential conflicts between coastal engineering and the Site. Major and minor issues have been identified across the Site. The major issues are going to be very difficult to tackle. The minor issues are not essential to resolve but are well worth while pursuing.

Key achievements:

The World Heritage Team and its partners have broken new ground in Earth science conservation and management;

- A fossil code for West Dorset
- The Collecting Cultures project
- A paper on the management of palaeontological sites based on their sensitivity
- A unique and integrated monitoring system and database
- Extensive photographic database including some innovative techniques
- Mapping the GCR's in GIS, a 'first' for JNCC

The tasks for the future:

1. Ongoing monitoring of SSSI's through ENSIS and GCR World Heritage Site team systems.
2. The significant issues identified through the Shoreline Management Plan process
3. The minor issues taken on by various agencies (Natural England, World Heritage Team, Countryside Services, Environment Agency)
4. The ongoing maintenance and development of management initiatives
5. Catalogue of specimens from the Site in museum/university collections
6. Promotion of acquisition of key scientifically important specimens.
7. Mapping the interests and maintaining up to date data

Appendix 1 contains a site by site summary of key threats, opportunities or developments along the length of the Site