Dorset and East Devon Coast

2017 Conservation Outlook Assessment

SITE INFORMATION

Country: United Kingdom of Great Britain and Northern Ireland (UK)
Inscribed in: 2001
Criteria: (viii)

Site description:
The cliff exposures along the Dorset and East Devon coast provide an almost continuous sequence of rock formations spanning the Mesozoic Era, or some 185 million years of the earth's history. The area's important fossil sites and classic coastal geomorphologic features have contributed to the study of earth sciences for over 300 years. © UNESCO
SUMMARY

2017 Conservation Outlook

Finalised on 08 Nov 2017

Good

Geological and paleontological values of the site have remained well preserved since the inscription and are very robust against most current and potential threats. The protection and management of the site is mostly effective to highly effective overall, with several examples of international best practice in World Heritage management. The overall conservation outlook for the property is good, because of the robustness of its values against anthropogenic impact and effective conservation management. A clear buffer zone should however be considered in light of the overlapping oil concessions with the property, and thereby the possibility of extractives activities taking place within the setting of the property.

Current state and trend of VALUES

Good

Trend: Stable

The state of the geological, palaeontological and geomorphological values of the site was assessed as good at the time of inscription. It has remained in good condition and stable since.

Overall THREATS

Low Threat

The OUV of the property is very robust against most current and potential threats. However coastal defences and the overlap of extractive concessions with the property and its setting pose potential threats to the property. Should oil exploration in the buffer zone of the property be allowed to proceed, the threat level should be reassessed.
**Overall PROTECTION and MANAGEMENT**

*Highly Effective*

The protection and management of the site is mostly effective to highly effective overall, with several examples of international best practice in World Heritage management.
FULL ASSESSMENT

Description of values

Values

World Heritage values

► Globally significant rock record, fossil localities and geomorphological features
  Criterion:(viii)

The coastal exposures along the Dorset and East Devon coast provide an almost continuous sequence of Triassic, Jurassic and Cretaceous rock formations spanning the Mesozoic Era and document approximately 185 million years of Earth’s history. The property includes a range of globally significant fossil localities – both vertebrate and invertebrate, marine and terrestrial – which have produced well preserved and diverse evidence of life during Mesozoic times. It also contains textbook exemplars of coastal geomorphological features, landforms and processes (SoOUV, 2010).

Other important biodiversity values

► Wide range of coastal temperate ecosystems with their associated flora and fauna

There is a variety of important coastal ecosystems within the property, particularly on land-slipped cliffs and cliff-top grasslands. These support rare and threatened plant species such as Purple Gromwell Lithospermum purpureocaeruleum, Coastal Ash Fraxinus excelsior, Spider Orchid Ophrys sphegodes, and Early Gentian Gentianella anglica. There are also bio-diverse beach ecosystems such as Chesil Beach (with Sea Kale Crambe maritime and
Yellow-horned Poppy Glaucium flavium, among others), and the coastal lagoon of the Fleet, with its extensive aquatic macrophyte communities (UNEP-WCMC, 2011), and a European importance for Stoneworts (Plantlife 2012a). Studland area has 363 species of lichens (Plantlife 2012b). Among the fauna, noteworthy species include wintering Brent Geese Branta bernicla bernicla and Slavonian Grebe Podiceps auritus. There are also important invertebrate communities, both terrestrial and intertidal (UNEP-WCMC, 2011). The property overlaps with the Exe Estuary Special Protection Area (a Ramsar site – Wetlands International, 2012), the WWF Global 200 priority marine ecoregion “Northeast Atlantic Shelf Marine” (WWF, 2012), the Important Bird Area of European Importance “Chesil Beach and the Fleet” (BirdLife International, 2012b), and the Important Plant Areas of “Dorset Coast – Isle of Portland to Sudland Cliffs” (Plantlife, 2012b) and “Chesil Beech and the Fleet” (Plantlife, 2012a). It does not overlap with any WWF/IUCN Global Centre of Plant Diversity (WWF and IUCN, 1994), Endemic Bird Area (BirdLife International, 2012a), or Conservation International Global Biodiversity Hotspot (CI, 2012).

**Assessment information**

**Threats**

**Current Threats**

**Very Low Threat**

The OUV of the site is not threatened significantly currently, and its biodiversity values are also well preserved. However, there is a need to continue to manage visitors in a way that minimizes path and vegetation erosion as well as to monitor fossil collecting and its impact.

**Tourism/visitors/recreation**

**Very Low Threat**

The high visitation may also lead to disturbance of wildlife, but key wildlife areas within the property seem to be rather well protected by its various PAs.
(Protected Planet, 2012). Therefore, this is considered a very low threat only.

▶ Other Activities

**Low Threat**

**Inside site, scattered (5-15%)**

Pressure from fossil collecting is high (mainly local collectors and visitors) but is well regulated by policies, which are effectively implemented (Jurassic Coast World Heritage Site, 2009).

▶ Erosion and Siltation/ Deposition

**Very Low Threat**

**Inside site, scattered (5-15%)**

Tourist impact on the property itself is minimal, but is more noticeable on the setting.

▶ War, Civil Unrest/ Military Exercises

**Very Low Threat**

**Inside site, localised (<5%)**

The Lulworth Firing Range inside the property has restricted access, but there are several sign-posted paths open for more than 130 days per year, including most weekends and public holidays (UNEP-WCMC, 2011). Since there is no threat to the OUV, and since the significant but localized threat to additional biodiversity values is partly outweighed by the PA function of the firing range, this threat is considered very low.

**Potential Threats**

**Data Deficient**

The need for coastal sea defences is the largest ongoing threat to the site and climate change will exacerbate it. The potential impact of oil and gas exploration on the OUV of the property is unknown but are likely to be very low. It may have some impact on the setting of the property however. In terms of the World Heritage Committee's position, it is important to note that oil and gas exploration or exploitation is incompatible with the World Heritage status. Corallian Energy Ltd, Egdon Resources UK Ltd, Southwestern Resources Ltd/Horizon Energy and Perenco UK Ltd appear to own concessions, issued by
the UK government that overlap the Jurassic Coast WHS or its the setting of the site.

**Mining/ Quarrying**

- **Low Threat**
  - **Inside site, localised (<5%)**
  - **Outside site**

Planning permission for two quarrying areas inside the current boundaries of the property was granted in 1951, but two modification areas plus the resulting reduced economic viability of quarrying operations in the remaining areas make it extremely unlikely, according to the State Party, that any quarrying will go ahead at these sites. This is in spite of the fact that there were attempts to go initiate quarrying in 2007. Quarrying could compromise not only the property, but also coastal landscapes and a nationally designated Special Area of Conservation (UNEP-WCMC, 2011).

**Oil/ Gas exploration/development**

- **Low Threat**
  - **Inside site, extent of threat not known**
  - **Outside site**

The proximity of the shipping lanes of the English Channel and the precedent of the MSC Napoli intentional emergency beaching in 2007 (Wainwright, 2007), which luckily had not major consequences for the OUV of the property (WHC 2007), show that shipping accidents and resulting spills in the vicinity may well affect its territory. The shingle beaches, and their behavior, would be impacted in the case of significant oil spill – this could lead to a breach of Chesil bank and impacts at other locations that are protected by shingle beaches.

**Other**

- **High Threat**
  - **Inside site, extent of threat not known**
  - **Outside site**

Climate change might in the long term affect coastal stability and ecosystem distribution (Zacharioudaki and Reeve, 2011), increase coastal erosion and create a need for strengthened coastal defenses along the property, which would compromise its erosion/deposition dynamics, aesthetic value and
accessibility (Jurassic Coast World Heritage Site, 2009). The need for coastal sea defences is the largest ongoing threat to the site and climate change will exacerbate it.

**Oil/ Gas exploration/development**

**Data Deficient**

**Outside site**

Corallian Energy submitted a request for a screening opinion to be adopted that stated that an environmental impact assessment was not necessary in advance of planning permission being granted for a wellsite and drill construction for oil and gas exploration. The project site is located approx. 600 metres outside of the property boundaries but within the setting of the World Heritage, and in close proximity to nationally designed protected areas and within an Area of Outstanding Natural Beauty (AONB). These national protected area designations were described as providing protection to the World Heritage property and hence as a natural buffer zone at the time of its inscription on the UNESCO World Heritage List. In 2017, the Secretary of State ruled that an Environmental Impact Assessment (EIA) will not be required as part of the planning procedure in respect of the construction of a well site as in his view it is unlikely that the project will have a significant impact on the environment. However, the Secretary of State accepted that the drill rig would be a visually intrusive structure and that a visual impact assessment should be carried out. The County Council has requested that a landscape visual impact assessment be undertaken. The impact of the project on the OUV (geological values) of the property is unknown but the setting may be affected.

**Protection and management**

**Assessing Protection and Management**

**Relationships with local people**

**Some Concern**

Local people were involved intensively in the development and consultation of the management plan of the property. Local landowners (through Country
Land and Business Association) and planning authorities (District Councils) as well as several regional NGOs are also represented in the World Heritage Steering Group, the key coordinating and decision making body for the property, and management is carried out partly by local stakeholders (Jurassic Coast World Heritage Site, 2009). However, the oil and gas exploration project at California Quarry has created tension between selected local communities and the local authority. Local communities, independent businesses and groups have raised their concern regarding the potential impact of the project on the environment and on the setting of the property.

Legal framework and enforcement

Highly Effective

The property is protected under national nature conservation legislation by 13 Sites of Special Scientific Interest (SSSI) which encompass both geological and biological interests. The setting is protected by two Areas of Outstanding Natural Beauty (AONBs) (IUCN Category V Protected Landscape/Seascape), a national landscape designation. Further protection is provided by 3 SAC, 2 SPA and 2 Ramsar international site, 2 National Nature Reserves and the adjacent Lyme Bay Marine Protection Area. Legal protection was considered effective at the time of inscription (IUCN, 2001).

Enforcement

Mostly Effective

Visitors are informed of the fossil collection code but it is difficult to enforce restrictions, though the impacts are relatively low. Developments within the property are strictly controlled.

Integration into regional and national planning systems

Highly Effective

The management plan of the property explicitly refers to the integration of the OUV management of the site into the UK planning system at the regional and national level, particularly to integration into Local Development Frameworks and Regional Spatial Strategies (Jurassic Coast World Heritage Site, 2009).
► Management system
Highly Effective

The 2014-2019 Management Plan for the Dorset and East Devon Coast World Heritage site, aims at protecting and conserving the site, improving understanding of its OUV, improved realization of benefits and access, awareness raising and the demonstration of good World Heritage management. These aims are pursued through a set of management principles and policies, a dedicated management structure with World Heritage Steering Group as main coordinating body, and specific actions (Dorset County Council, 2014).

► Management effectiveness
Highly Effective

No formal management effectiveness assessment has been conducted for the site, but a management plan is being implemented, and is publically accessible. In the past, management during the 2001-2006 period in the areas of OUV and landscape conservation, visitation, interpretation and education, gathering and dissemination of scientific information as well as integration of the site with sustainable regional development was overall rated as successful (Jurassic Coast World Heritage Site, 2009).

► Implementation of Committee decisions and recommendations
Highly Effective

The only relevant Committee decision on the property since inscription was Decision 31 COM 7B.33 (WHC, 2007), which dealt with the emergency response to the MSC Napoli accident. There are no recent Committee decisions or recommendations.

► Boundaries
Some Concern

The property’s boundaries are considered adequate because they are based on the spatial distribution (and national protective designations) of OUV throughout 13 Sites of Special Scientific Interest (which encompass 66 Geological Conservation Review sites), are consistent with British legislation
(e.g. regarding seaward boundary), and were set following a lengthy consultation process. A buffer zone is considered unnecessary, because of the overall effective conservation and management regime around the property. Protection of the setting is mostly fulfilled by the East Devon and Dorset AONBs (Dorset County Council, 2014). However, there is some local concern that oil exploration may be permitted in the setting of the property, as extractives concessions that overlap with the property have been issued. The property could therefore benefit from the creation of a clearly demarcated buffer zone.

▶ **Sustainable finance**

**Mostly Effective**

Funding of the property is provided on a partnership basis. In 2008-9, the property received a total of ca. USD 670,000, from Dorset County Council, Devon County Council and Natural England. This was supplemented by contributions and project funding from various sources including some larger land owners of the property, and is overall considered sufficient (UNEP-WCMC, 2011). Current government funding cut backs, particularly for local authorities and government organizations, could impact the property, therefore potential long term effects of these cuts should be monitored.

▶ **Staff training and development**

**Data Deficient**

Exact staff numbers of the property are difficult to ascertain because of its partnership management structure. About 40 wardens and rangers were employed by Devon and Dorset County Councils upon inscription alone (UNEP-WCMC, 2011). Staff training and development are likely to be conducted by the individual management partners, but detailed information is not available.

▶ **Sustainable use**

**Mostly Effective**

The property occupies an extended narrow strip of coastal cliffs, beaches and intertidal areas and is not of great interest for natural resources use. No problems with the sustainable use have been reported (IUCN, 2001, Jurassic
Education and interpretation programs
Highly Effective

Six of the eight aims of the property’s management plan are directly linked to education. An extensive education programme is implemented at the property. An education work group was established in 2002, a “Jurassic Textbook” was published in 2003 and an Education Coordinator was hired in 2004. Particular emphasis is put onto cooperation with primary and secondary schools, as well as on informal education through visitor centres.

Tourism and interpretation
Mostly Effective

Aim 5 of the property’s management plan focus on improving access for visitors to the coast (Dorset County Council, 2014). A wide range of publications have been produced and visitor interpretation centres established or improved since inscription (e.g. the Charmouth and Beer centres and Dorset Country Museum). Transport infrastructure has been improved (e.g. X53 Jurassic Coast Bus) and the site has been awarded the Tourism for Tomorrow Destination Management Award 2005.

Monitoring
Highly Effective

There is a detailed monitoring programme and state of conservation report is published annually for the site. The implementation of the management plan is also being monitored (Dorset County Council, 2014).

Research
Mostly Effective

The property has supported geological and palaeontological knowledge generation for the last 200 years (Brunsden and Edmonds, 2010, UNEP-WCMC, 2011), and continues to host a wide range of research projects. Development of a more focused research strategy was commissioned to the University of Plymouth in 2007, to better direct and coordinate research at the property. A Science and Conservation Advisory Group and Network
support the site (Jurassic Coast World Heritage Site, 2009).

**Overall assessment of protection and management**

**Highly Effective**

The protection and management of the site is mostly effective to highly effective overall, with several examples of international best practice in World Heritage management.

**Assessment of the effectiveness of protection and management in addressing threats outside the site**

**Mostly Effective**

The main outside threats to the property are pollution by oil or other chemical spills and infrastructure development in its immediate surroundings (e.g. Portland area). These cannot be fully controlled but so far have been addressed effectively, as in the MSC Napoli accident in 2007 (WHC, 2007), or regarding quarrying concessions in the vicinity of the property. Concerns have been raised by some local communities regarding the approved oil and gas exploration at California Quarry, which require ongoing dialogue with the relevant authorities to resolve.

**Best practice examples**

1. Close involvement of local people and interest groups in the management planning and implementation process
2. Collaborative management setup building on existing local and regional authorities and organizations
3. Extensive visitation, interpretation and education programmes which deal with a very large number of visitors and include innovative approaches, such as the use of the arts in interpretation and education
4. Fossil collecting management working collaboratively with local collectors,
Assessing the current state and trend of values

World Heritage values

▶ Globally significant rock record, fossil localities and geomorphological features
  Good
  Trend: Stable

The state of the geological, palaeontological and geomorphological values of the site was assessed as good at the time of inscription (IUCN, 2001). It has remained stable since, according to the State Party (Jurassic Coast World Heritage Site, 2009), which also identified some small local areas of unfavorable conservation state. It is hence assessed as of low concern, and stable.

Summary of the Values

▶ Assessment of the current state and trend of World Heritage values
  Good
  Trend: Stable

The state of the geological, palaeontological and geomorphological values of the site was assessed as good at the time of inscription. It has remained in good condition and stable since.

▶ Assessment of the current state and trend of other important biodiversity values
  Low Concern
  Trend: Stable

The Factsheets for the two Important Plant Areas and for the Important Bird Area that overlap with the property do not indicate any specific impairments
of their conservation status since inscription (BirdLife International, 2012b, Plantlife, 2012a, b). The same is true for the 2010 State of Conservation Report of the property (Jurassic Coast World Heritage Site, 2010). Additional information may be available from the UK biodiversity monitoring system and from Natural England on the condition of SSSIs.

Additional information

Benefits

Understanding Benefits

▶ Outdoor recreation and tourism

There are 14 million visitors to the property annually, with an increasing contribution of international visitors, and nature based tourism is practiced at a high intensity (UNEP-WCMC, 2011). The site offers a unique opportunity to experience not only its OUV but also the coastal landscapes of southern England in general. This contributes significantly to income generation and the socio-economic development in the property’s vicinity.

▶ Importance for research

The site has critically contributed to the scientific understanding of geology, palaeontology and coastal geomorphology since the early 19th century, and continues to support extensive scientific research and publications (UNEP-WCMC, 2011). In addition, new know-how on the management of World Heritage and other natural areas is generated and tested by the institutions managing the property.

▶ Contribution to education

Based on the site’s immense importance for palaeontological and geological knowledge generation and its exemplary visitor and educational facilities, it also functions as a living museum, which helps people understand how life has evolved throughout Earth’s history, and how coastal landscapes continue
Summary of benefits

The main benefits of the property are knowledge generation, education and nature based tourism with the immense socio-economic benefits that depend on them, but the property also offers significant nature conservation benefits.

Projects

Compilation of active conservation projects

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<th>Organization/individuals</th>
<th>Project duration</th>
<th>Brief description of Active Projects</th>
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<tr>
<td>1</td>
<td>Jurassic Coast Trust</td>
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<td>Various fundraising projects in support of the management of the property</td>
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<td>2</td>
<td>South Devon and Dorset Coastal Advisory Group</td>
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<td>Projects for sustainable shoreline management in the property’s area</td>
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<td>3</td>
<td>Arts Council England, South-west</td>
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<td>Jurassic Coast Arts Programme, part of the interpretative and educational activities at the property</td>
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<td>4</td>
<td>The National Trust</td>
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<td>Nature conservation projects on NT areas overlapping with the property</td>
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<tr>
<td>5</td>
<td>British Geological Survey</td>
<td></td>
<td>Geological, palaeontological and geomorphological research projects on the property</td>
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<tr>
<td>6</td>
<td>Natural England</td>
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<td>Manages Axmouth to Lyme Regis Undercliffs National Nature Reserve</td>
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# REFERENCES

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