Giant's Causeway and Causeway Coast

SITE INFORMATION

Country:
United Kingdom of Great Britain and Northern Ireland (UK)
Inscribed in: 1986
Criteria:
(vii) (viii)

Site description:
The Giant's Causeway lies at the foot of the basalt cliffs along the sea coast on the edge of the Antrim plateau in Northern Ireland. It is made up of some 40,000 massive black basalt columns sticking out of the sea. The dramatic sight has inspired legends of giants striding over the sea to Scotland. Geological studies of these formations over the last 300 years have greatly contributed to the development of the earth sciences, and show that this striking landscape was caused by volcanic activity during the Tertiary, some 50–60 million years ago. © UNESCO
**SUMMARY**

**2014 Conservation Outlook**

**Significant concern**

Because of its inherent robustness against anthropogenic impact and the effective management of the property itself, the conservation outlook for the site’s geological values is good. At the same time, the conservation outlook for the exceptional natural beauty of the site, which depends on the integrity of the surrounding landscape, is of significant concern, mainly because of the planned and approved tourism development project in the immediate vicinity of the site and potential additional development projects in the future.

**Current state and trend of VALUES**

**Low Concern**

Trend: Deteriorating

The current state of the geological values of the property is good and stable, whereas its scenic and aesthetic values are threatened by the planned development of the golf resort in the site’s vicinity.

**Overall THREATS**

**High Threat**

While geological values of the site are highly robust against anthropogenic threats, its outstanding natural beauty is under a serious threat from planned and potential development projects in the site’s vicinity.

**Overall PROTECTION and MANAGEMENT**

**Mostly Effective**

The property has many layers of protection and the management of the property itself is highly effective. However, the management of the immediate surroundings is crucial for the preservation of the property’s Outstanding
Universal Value and particularly its scenic value.
FULL ASSESSMENT

Description of values

Values

World Heritage values

► Extraordinary geological complex formed by basaltic lava flows
  Criterion:(viii)

The property, with the Giant's Causeway itself (a sea-level promontory of almost entirely regular polygonal columns averaging 45 cm in diameter and numbering approximately 40,000 columns), the Giant's Organ (about 60 regular columns, 12 m high, and Chimney Tops (a number of columns separated from the cliffs by erosion), together with a number of associated features, form an exceptional example of geological activity with successive lava flows and inter-basaltic beds, and hence extraordinary testimony to Tertiary geological events. The extremely regular columnar jointing of the Tholeiitic basalts is a spectacular feature that is displayed in exemplary fashion at the Giant’s Causeway. The Causeway itself is a unique formation and a superlative horizontal section through columnar basalt lavas (SoOUV, 2013; UNEP-WCMC, 2011). The site is a classic locality for the study of Tertiary basalts and has played a fundamental role in the historical development of geological interpretation. Its value for scientific research, which has made important contributions to petrogenesis over a period of nearly 300 years, marks it as a site of international significance in the history of earth science (WHC, 2006; SoOUV, 2013).

► Geological spectacle of exceptional natural beauty
  Criterion:(vii)

The cliff exposures of columnar and massive basalt at the edge of the Antrim
Plateau, within their spectacular landscape setting, present a spectacle of exceptional natural beauty. The extent of visible rock sections and the quality of the exposed columns in the cliffs and on the Causeway combine to present an array of features of international significance (SoOUV, 2013).

Other important biodiversity values

▶ Significant coastal ecosystems with their associated biodiversity

This relatively small site nevertheless harbors valuable coastal ecosystems with their associated flora and fauna, including seashore, cliff, scree, grassland, scrub, heathland and marsh habitats. Noteworthy examples of the 200 plant species at the site include Red Broomrape Orobanche alba, Sea Spleenwort Asplenium marinum, and Frog Orchid Coeloglossum viride. Avifauna is represented by 50 resident and 30 migrant species, including Razorbill Alca turdus, European Storm Petrel Hydrobates pelagicus and Peregrine Falcon Falco peregrinus (UNEP-WCMC, 2011). The coastal waters bordering the site are part of the WWF priority global 200 ecoregion “North-east Atlantic Shelf Marine” (WWF, 2012).

Assessment information

Threats

Current Threats

High Threat

The inherent robustness and effective management of the property so far have controlled threats to its values. However, ongoing plans for large scale tourism/golf development in the immediate vicinity of the property acutely threaten its Outstanding Universal value, because its outstanding natural beauty depends not only on the site itself but also on its wider landscape setting.
Tourism/ Recreation Areas

High Threat
Inside site

A plan to construct a large hotel/golf course including a four-storey 120 bedroom hotel, 75 residential units, shops, bars and restaurants, a golf club house and auxiliary infrastructure between Bushmills and the property, and inside the Causeway Area of Outstanding Natural Beauty, has been approved by the Northern Ireland Environment Minister early in 2012 (National Trust, 2012a). The National Trust has decided to challenge the approval of the plan in court, because it would compromise the landscape setting of the property and therefore its Outstanding Universal Value (criterion vii), as well as additional biodiversity values, such as at the Bushfoot Dunes Site of Local Conservation Concern (National Trust, 2012b).

Other Activities

Very Low Threat
Inside site

Some basalt columns were removed or damaged during the 19th Century but this practice has now ceased and the threat from removal of basalt columns is considered very low (UNEP-WCMC, 2011).

Tourism/ visitors/ recreation

Low Threat
Inside site
Outside site

Some footpaths inside the property need to be closed for maintenance and reconstruction and path erosion was considered an issue of concern in the past. It was then noted that an overall visitation and tourism management strategy for the site was missing (Rössler and Zupancic-Vicar, 2003). However, the overall effective management ensures that visitation-related threats are well-controlled at this property (UNEP-WCMC, 2011), and these threats are hence considered low threats.
Potential Threats

Low Threat

There is a potential threat to the landscape setting of the site from further onshore development and from offshore wind farm developments currently under consideration. However, this threat is considered low because there appear to be no immediate plans to go ahead with any development. Other potential threats include climate change, which needs to be studied further.

▶ Storms/Flooding

Data Deficient

Inside site

Climate change might in the long term affect coastal stability and ecosystem distribution (Zacharioudaki and Reeve, 2011), might increase coastal erosion and create a need for strengthened coastal defenses along the property, which might compromise its aesthetic value and accessibility. The exact extent and likely impact of this potential threat need to be studied further.

▶ Renewable Energy

Low Threat

Outside site

There was a discussion about a proposed offshore wind farm in 2003. IUCN and the World Heritage Centre then recommended to carefully assess possible impacts of such developments on the property and the Area of Outstanding Natural Beauty surrounding it (Rössler and Zupancic-Vicar, 2003). A 2009 Strategic Environmental Assessment for potential offshore renewable energy installations in Northern Ireland, which was commissioned by the EC’s European Regional Development Fund and the Department of Enterprise, Trade and Investment of Northern Ireland, follows this recommendation (AECOM and Metoc, 2009). However a low threat of offshore wind farm development affecting the property remains.

▶ Tourism/ Recreation Areas

Low Threat
The planned Runkerry Golf Resort development shows that the vicinity of the property is generally under threat from large-scale development that is not consistent with protection of the site’s values and integrity of the site.

Protection and management

Assessing Protection and Management

▶ Relationships with local people
Mostly Effective

The property is uninhabited and mainly owned by the National Trust. The WHS Management Plan 2013-2019 prepared by the Causeway Coast and Glens Heritage Trust in 2012 was subjected to consultation and there is an active steering group (Giant’s Causeway and Causeway WHS Management Plan, 2012)

▶ Legal framework and enforcement
Mostly Effective

The coastline at the property is legally protected since 1987 as a National Nature Reserve, and partly as an Area of Special Scientific Interest (since 2000). The entire Causeway Plateau is designated since 1989 as an Area of Outstanding Natural Beauty. In addition, the property has been designated a Special Area of Conservation under the EU Habitats Directive (Protected Planet, 2012, Rössler and Zupancic-Vicar, 2003). The overall legal framework of the property itself is considered highly effective, while some concern exists about the protection status of its surrounding landscape. There is, however, a management plan for the Area of Outstanding Natural Beauty – first written 2003 and updated in 2008 and a new one (for 2013-2023) is now in preparation (Causeway Coast Area of Outstanding Natural Beauty Management Plan 2013-2023 [draft]).

▶ Integration into regional and national planning systems
Some Concern
The management framework for the property is integrated with 13 key policies and plans at different levels, including regional development, tourism development and spatial planning documents (Environment and Heritage Service, 2005). However, this has not prevented permission for a large-scale tourism development in the immediate vicinity of the property, which may compromise its Outstanding Universal Value.

▶ **Management system**

**Highly Effective**

The property has many layers of statutory and non-statutory protection. The National Trust holds most of the land in inalienable ownership, with approximately 5% of the property remaining in private ownership. A World Heritage Steering Group comprising relevant stakeholders provides the framework for implementation of the property’s Management Plan (SoOUV, 2013). The current management plan for the World Heritage site (2013-2019) was prepared in 2012 by the Causeway Coast and Glens Heritage Trust. The management plan “provides an agreed framework and important actions for the sustainable management of the Site and its environs” (Giant’s Causeway and Causeway Coast World Heritage Site Management Plan 2013-2019).

▶ **Management effectiveness**

**Mostly Effective**

No formal management effectiveness assessment has been conducted for the site. Management of the property itself by the National Trust is considered highly effective, while the management of the surrounding landscape is of some concern (UNEP-WCMC, 2011).

▶ **Implementation of Committee decisions and recommendations**

**Some Concern**

The 2003 monitoring mission recommended to “…carefully review all zoning arrangements in order to preserve the landscape values of the Area of Outstanding Natural beauty surrounding the World Heritage site. No developments, which could potentially threaten these values, should be allowed”. The mission also recommended the establishment of a clearly defined buffer zone surrounding the property (Rössler and Zupancic-Vicar,
These key recommendations, which were adopted by the Committee in its Decision 27COM 7B.21, have not been followed (see National Trust, 2012a) in regard to the Runkerry Golf Resort development. Other requests and recommendations contained in Decisions 27COM 7B.21, 29COM 7B.27 and 32COM 7B.28 of the World Heritage Committee relating to information about the management plan and visitor centre redevelopment have been implemented by the State Party (WHC, 2003, 2005, 2008).

**Boundaries**

*Mostly Effective*

The boundaries of this very small (70 ha) property reflect the distribution of its values under criterion viii but are very narrow to effectively protect its scenic landscape values and the additional biodiversity values of the area. A clearly defined buffer zone to achieve this, as recommended by the 2003 monitoring mission (Rössler and Zupancic-Vicar, 2003), is still missing. However, the World Heritage site is noted in the wider AONB Management Plan.

**Sustainable finance**

*Mostly Effective*

Funding was assessed as insufficient by the State Party in 2006 (WHC, 2006). Additional funds have since been raised for the construction of a new visitor centre (National Trust, 2012c).

**Staff training and development**

*Mostly Effective*

There were about 12 full-time and 15 seasonal staff at the property in 2003 (Rössler and Zupancic-Vicar, 2003). Staffing was considered inadequate by the State Party in 2006 (WHC, 2006), but it is not clear if this referred to the National Trust staff or other staff (e.g. at the County Administration) involved in some management aspects of the property.

**Sustainable use**

*Highly Effective*

This very small property consists of mainly coastal cliffs and foreshore, and is
not important for sustainable use other than tourism (UNEP-WCMC, 2011).

Education and interpretation programs

Mostly Effective

The National Trust runs a wide range of education and interpretation programmes at and around the site, including a website and newly designed visitor centre with interactive exhibitions (National Trust, 2012c), school and student visits, guided tours and interpretative trails, and interpretation publications for a wide range of target groups and in eight languages.

Tourism and interpretation

Highly Effective

The site receives about 600,000 visitors annually and disposes of a new visitor centre with interactive exhibitions and cafeteria, a hotel run by the National Trust, parking and shuttle bus, trails and related facilities (National Trust, 2012c). An overall coordinated tourism management strategy was recommended in 2003 (Rössler and Zupancic-Vicar, 2003). A Causeway Coast and Tourism Masterplan was published in 2004 (Northern Ireland Tourism Board, 2012). Other relevant documents include the Department of Enterprise Trade and Investment Tourism Strategy for Northern Ireland 2010-2020 and the Causeway Coast & Glens Tourism Area Plan 2010-2020.

Monitoring

Data Deficient

A comprehensive monitoring strategy and framework including 22 indicators on geology/geomorphology, landscape, ecology, cultural heritage, socio-economic and visitation trends, and the management of the wider setting of the site, was included in the 2004 management plan of the property (Environment and Heritage Service, 2005). However, no monitoring results appear to have been published.

Research

Mostly Effective

The site has been studied intensively over the last 300 years, and has contributed significantly to the current understanding of the origin of igneous
rocks, and tertiary geology (UNEP-WCMC, 2011). It continues to support research in these fields. However, there was no agreed research framework or strategy for the property in 2006 (WHC, 2006).

**Overall assessment of protection and management**

*Mostly Effective*

The property has many layers of protection and the management of the property itself is highly effective. However, the management of the immediate surroundings is crucial for the preservation of the property’s Outstanding Universal Value and particularly its scenic value.

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

*Some Concern*

The effectiveness of protection and management in addressing threats outside the property, mainly development of tourism infrastructure and potentially offshore wind farms, is the main area of concern in relation to the overall management of the property because this might seriously compromise its Outstanding Universal Value.

► **Best practice examples**

New (2012) visitor centre with interactive exhibitions and additional facilities.

**State and trend of values**

**Assessing the current state and trend of values**

**World Heritage values**

► **Extraordinary geological complex formed by basaltic lava flows**

*Good*

*Trend: Stable*

The geological values of the property are very robust against anthropogenic impact and well managed. The 18th/19th century practice of
removing/damaging basalt columns for ornamental use has long ceased (UNEP-WCMC, 2011). Therefore, their current state is assessed as good and stable.

★ Geologica**l spectacle of exceptional natural beauty**

**High Concern**

**Trend:** Deteriorating

In contrast to the geological values of the property, which can be effectively managed within its boundaries, the exceptional natural beauty crucially depends on the wider landscape setting, which is currently under a serious threat from the planned development of the Runkerry Golf Resort (National Trust, 2012a), and may come under additional threats from other development projects in its weakly protected vicinity.

Other important biodiversity values

★ **Significant coastal ecosystems with their associated biodiversity**

This relatively small site nevertheless harbors valuable coastal ecosystems with their associated flora and fauna, including seashore, cliff, scree, grassland, scrub, heathland and marsh habitats. Noteworthy examples of the 200 plant species at the site include Red Broomrape Orobanche alba, Sea Spleenwort Asplenium marinum, and Frog Orchid Coeloglossum viride. Avifauna is represented by 50 resident and 30 migrant species, including Razorbill Alca torda, European Storm Petrel Hydrobates pelagicus and Peregrine Falcon Falco peregrinus (UNEP-WCMC, 2011). The coastal waters bordering the site are part of the WWF priority global 200 ecoregion “Northeast Atlantic Shelf Marine” (WWF, 2012).

Summary of the Values

★ **Assessment of the current state and trend of World Heritage values**

**Low Concern**

**Trend:** Deteriorating

The current state of the geological values of the property is good and stable, whereas its scenic and aesthetic values are threatened by the planned
development of the golf resort in the site’s vicinity.

▶ **Assessment of the current state and trend of other important biodiversity values**

**Good**

**Trend: Data Deficient**

The site includes sections of North Antrim Coast Special Area of Conservation (SAC), Giant’s Causeway National Nature Reserve (NNR), Giant’s Causeway & Dunseverick Area of Special Scientific Interest (SSSI) and Skerries and Causeway Marine Special Area of Conservation (Marine SAC) – data is recorded and reported for these designations.

### Additional information

### Key conservation issues

▶ **Lack of adequate conservation regime in the immediate vicinity of the property**

**Local**

This is an exceptionally small natural World Heritage property and the impact of threats originating around its boundaries is therefore particularly high. At the same time, the property is inscribed for its exceptional natural beauty under World Heritage criterion vii, which further increased the dependency of its overall integrity on adequate management of its landscape setting. This indicates that a clearly defined an intensively managed buffer zone with restrictions on large scale infrastructure development may be needed in order to safeguard the integrity of the property’s OUV. The AONB Management Plan does, however, set the WHS in its context but it does not specifically identify a buffer zone

### Benefits
Understanding Benefits

▶ **Is the protected area valued for its nature conservation?**

The considerable nature conservation values are reflected by its designation as a National Nature Reserve, and of the wider area as an Area of Outstanding Natural Beauty. The site also overlaps with areas designated as being of international importance for wildlife, either as a Areas of Special Conservation Importance or PA under European Community Directives (Rössler and Zupancic-Vicar, 2003).

▶ **Does management of the site provide jobs (e.g. for managers or rangers)?**

There are 12 permanent and 15 seasonal staff employed by the National Trust in 2003 (Rössler and Zupancic-Vicar, 2003). In addition, a significant number of jobs (tens or even hundreds of jobs in tourism) indirectly benefit from the attractiveness of the property, which draws 600,000 visitors annually.

▶ **Outdoor recreation and tourism**

There are 600,000 visitors to the property annually, half of them from abroad, 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 Northern Ireland. 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 igneous rock formation and Tertiary geology since the early 18th century, and continues to support extensive scientific research and publications (UNEP-WCMC, 2011).

▶ **Contribution to education**
Based on the site’s immense importance for geological knowledge generation and its new visitor and educational facilities, it also functions as a hotspot for scientific education and interpretation, which helps people understand how Earth has evolved (UNEP-WCMC, 2011).

History and tradition

In the 18th Century, the myth of the prehistoric hero Finn MacCool emerged, which links the Giant’s Causeway with Staffa Island in Scotland and gained considerably international popularity, in connection to the epics of Ossian (J. Macpherson), thereby becoming an international literary reference (UNEP-WCMC, 2011).

Summary of benefits

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

Projects

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<th>Project duration</th>
<th>Brief description of Active Projects</th>
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<td>1</td>
<td>National Trust</td>
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<td>Several projects directly contributing to the management of the property</td>
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<td>2</td>
<td>Northern Ireland Tourist Board</td>
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<td>Development, implementation and monitoring of Tourism Master Plan for the Causeway Coast (until 2013)</td>
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<td>3</td>
<td>Causeway Coast and Glens Heritage Trust</td>
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<td>Several projects on communication, education and awareness raising in relation to the property, and promotion of sustainable environmental management and sustainable development in the region</td>
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# REFERENCES

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<td>Causeway Coast and Glens Heritage Trust (2010), The Causeway Coast &amp; Glens Tourism Area Plan 2010-2020</td>
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<td>Causeway Coast and Glens Heritage Trust (2012), Giant’s Causeway and Causeway Coast World Heritage Site Management Plan 2013 – 2019</td>
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<td>Causeway Coast and Glens Heritage Trust (2013), Causeway Coast AONB Management Plan 2013 -2023</td>
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