Causeway Coast
Area of Outstanding Natural Beauty
Management Plan
Appendices

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Causeway Coast
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Appendix 1

Landscape Character Assessment Methodology
Landscape Character Assessment Methodology

Introduction

Landscape character assessment is an important tool. It enables the landscape to be examined and assessed in a logical and consistent manner, identifying the features which give an area its "sense of place", and make it distinct from neighbouring areas. The result is the identification of landscape units of distinctive character, which are valuable in informing management policies. By understanding what is present within a landscape, and what makes it distinctive, it is possible to create management policies which respect the local character, and which can protect and enhance it.

Landscape character assessment can take place at a number of scales, from broad-brush national level to detailed local studies. A national Northern Ireland Landscape Assessment Study already exists,\(^1\) and covers the Causeway Coast AONB area. This study is relatively broad-brush in its approach and the majority of the AONB falls within the Causeway Coast and Rathlin Island landscape character area, although there are small areas which fall within the Coleraine Farmland, Dervock Farmlands, and Ballycastle Glens landscape character areas also. The more detailed study of the AONB used this national assessment as a starting point, sub-dividing the character areas where local variation occurred.

Methodology

Accepted methodologies exist for landscape professionals to use when carrying out landscape assessments. Use of these methodologies ensures comprehensiveness, robustness and consistency of working practise, but it is also possible to tailor the approach to fit the requirements of a particular project. The Causeway Coast landscape assessment is based on the methodologies set out in the *Countryside Agency / Scottish Natural Heritage Landscape Assessment Guidance* (2002), but has also utilised the *Guidance for Best Practise in Seascapes Assessment* (2001), which is particularly relevant as an approach for this coastal landscape.

The methodology has three stages: deskwork, fieldwork and analysis and description. Deskwork includes research on physical features such as geology, topography, rivers, soils, land use, tree cover and environmental designations. It also includes research on cultural features within the landscape such as settlement pattern, archaeology, field patterns, heritage designations, transport routes as well as a review of previous landscape assessments and documentation on the area.

Once the desk study information has been gathered, it is combined and overlaid to suggest potential landscape character types and local landscape character areas, which are mapped in draft. These landscape character areas are then checked and refined in the field. The local landscape character areas were found to be most informative in describing distinctive areas of landscape along the coast in this linear shaped AONB. Six landscape character areas were identified within the Causeway Coast AONB (see drawing 4 in the main management plan document – Vol II).

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\(^1\) Northern Ireland Landscape Assessment Series (1999) EHS
These character areas are:

The Skerries Coast,
The Bush Valley,
The Causeway Plateau,
The Magpie Coast,
The Kinbane Plateau,
The Ballycastle Valley.

Analysis and Descriptions of Landscape Character Areas

Once identified each landscape character area was described under the following broad headings.

The Physical Landscape
Each landscape character area has a distinctive “sense of place” which is the result of combinations of landscape features (both natural and man made), and which strongly relate to coastal and offshore features. The foundation of most landscapes is their geology, which influences topography, physical characteristics, vegetation, land-use building materials and suitability for settlement. In a coastal location such as the Giant’s Causeway AONB, the geology also affects the coastline and its features such as columns, islands, cliffs, stack, arches, caves, beaches and sand dunes.

The Man-made Landscape
Over the past centuries, people have influenced the evolution of the landscape, for example through the establishment of settlements, land enclosure (fields) and roads. These in turn have an effect on landscape character creating a particular visual pattern. Within the Causeway Coast AONB, there are many layers of cultural landscape, containing features from prehistoric times up to the present day.

Response to the Landscape
Different landscapes provoke different responses in visitors. For example, the sense of security felt in the Bush Valley is very different from the sense of exhilaration felt on the Causeway Plateau cliff top. This landscape character assessment considers the human response to the landscapes it describes, as this is an important part of the visitor experience, and of the appeal of the Area of Outstanding Natural Beauty.

Landscape Sensitivity/ Forces for Change and Management Guidelines
Each landscape character area has different combinations of pressures and forces for change. These are also recorded as part of this landscape character assessment, along with specific management guidelines for each landscape character area.

Some of the landscape management issues identified are AONB-wide. These have been highlighted in the Management Plan, and include issues such as best practise in building design and location, maintaining traditional landscape patterns and features, protection of key views and approaches to settlements and key attractions, enhancement of biodiversity and habitats, public access and traffic management.
Appendix 2
Landscape Character Areas:
Character Description and Implications for Management
1. Skerries Coast

Location

The Skerries Coast landscape character area (LCA) is located at the western end of the Causeway Coast AONB, and stretches from Portrush to just west of Portballintrae. This area of the AONB is relatively narrow, and does not extend far inland from the coast.

Key Visual Characteristics

- Elevated views to the distinctive islands of the Skerries
- Dunluce Castle is a key landmark
- Unique distant views to Giant's Causeway, showing distinctive cliff profiles.
- Complex and distinctive coastline, including beach, sand dunes, contrasting black and white cliffs (due to combination of basalt and chalk geology), arches, stacks and other formations.
- Inland, landscape appears as a "patchwork" due to variations in underlying geology.
- Visual association with Portrush.

The Physical Landscape

Within the Skerries Coast LCA, the geology consists of a thick layer of white chalk, which has been overlain and intruded by black volcanic basalt rocks, both of which are exposed in the cliffs along the coast but continue inland. The chalk is most clearly seen in the steep and high cliffs, which have been eroded into unusual shapes- including arches- by the sea. One section of the cliffs (the "White Rocks") has been designated an Area of Special Scientific Interest (ASSI) because of its geology and associated habitats. The black blocks of basalt visible in the cliffs and on the beaches contrasts with the white of the chalk.

Further inland, the geological variation can be seen in the landscape. Areas underlain by basalt are generally higher ridges up to 90m AOD, poorly drained and with a hummocky appearance. This contrasts with the smooth, rounded appearance of the chalk areas, which are slightly lower lying and closer to the coast.

The distinctive landmarks of the Skerries and the Portrush Peninsula are formed by intrusive igneous rocks. The tilted angle of the Skerries has been caused by the subsequent folding of the rocks.

At the western end of the Skerries Coast LCA is the long, convex sandy beach of Curran Strand and its extensive associated sand dune system. The sand dunes have been formed through the accumulation of blown sand, and are covered with coarse grass and salt tolerant shrubs such as sea buckthorn. From the beach there are good views westwards to Portrush and eastwards to the headlands of the Giant's Causeway.

Vegetation in the Skerries Coast LCA is generally low growing. There are many different wild flowers growing in unimproved chalk grassland at the cliff edges. Inland, gorse dominates basalt areas and is most visible when in flower during the spring and early summer. The landscape is very open with few trees, although some non-native evergreens have been planted to screen development around Portrush.
The Man-made Landscape

The Skerries Coast contains a dispersed pattern of houses and farms, but is bordered and usually influenced by the larger nucleated settlements of Portrush to the west and Portballintrae to the east. Portrush is visible from much of the western part of the LCA and therefore has a strong visual influence on the landscape. Recreational features such as hotels, caravan parks and golf courses are dominant in the landscape, as well as extensive residential development. Telecommunications masts have also become features within the landscape. Settlement within the Skerries Coast LCA consists of scattered and often large houses along the coast road outside Portrush and Portballintrae, overlooking the sea, with scattered farms further inland. However, between Ballycraigy Lower and the outskirts of Portballintrae, coastal settlement is sparse, leaving an intact rural setting to the dramatic and substantial remains of Dunluce Castle and the ruined church inland from it. The castle ruins are found today mainly from the 16th century, and are listed as a Historic Monument in State Care, and as a Scheduled Historic Monument. The church and castle are now physically and visually separated by the A2. Some of the farms within the Skerries Coast LCA reflect local vernacular building styles, but in general, buildings in this LCA are modern and less distinctive in design.

A main road (the A2) passes through the Skerries Coast LCA. It passes inland of the sand dunes at Ballykeel-Beg, but then stays close to the coast. For part of its route it follows the line of the former 19th Century tramway between Portrush and the Giant's Causeway. The old coast road (now a country lane used as a cycle route) runs inland of the A2. It is more elevated, and therefore has longer views which encompass more of the landscape.

The differences between the chalk and basalt areas is emphasized in the field pattern, which creates a mosaic effect within the landscape. In general, the basalt areas are used as rough grazing land, divided into small, irregular fields by stone walls. Many of these walls have fallen into disrepair. The basalt areas stand out clearly in the spring and early summer because of the yellow gorse flowers which thrive there. In contrast, the chalk areas contain smooth, improved pasture of a uniform bright green. Fields are regular in shape (usually rectangular) and some are defined by dry stone walls, although many have been replaced by post and wire fences.

Although today the Skerries Coast LCA is a pastoral landscape, in the past it has been exploited for its rich mineral resources, including aluminium and iron ore, as well as for basalt and chalk. There are several disused quarries and industrial sites within the Skerries Coast LCA, the most visually prominent being a disused quarry adjacent to the A2 near Dunluce.

Response to the Landscape

The quiet rural lanes have a relatively remote and tranquil atmosphere compared to the busier areas around Portrush, which has the atmosphere of a traditional seaside town. However, coastal tourist traffic has a significant impact on the area, causing congestion on the roads, and making car parks highly visible within the landscape.

The magnificent ruins of Dunluce Castle and the scale of the White Rocks cliff formations add dramatic, imposing and highly memorable elements to the coastal landscape. Both Dunluce castle and White Rocks are popular tourist attractions.

Inland, the overall impression of the landscape is of a "patchwork", created by the variations in geology and its impacts on topography, land use and vegetation. The gorse is a particularly dominant landscape element in the summer months. Views out to sea are dominated by the Skerries.
Landscape Sensitivity/Forces for Change

The coastal area between Ballycraig Lower and Portballintrae contains minimal development at the present time, and this part of the coastline retains a wild, dramatic character, including the major historic element of Dunluce Castle. From The Burnfoot viewpoint, there are long and uninterrupted views to the Giant’s Causeway, Dunluce Castle, White Rocks and Portrush. These views are some of the best views to the Giant’s Causeway World Heritage Site. They are irreplaceable resources and are unique to the AONB.

Further west, large scale development (particularly in the form of hotels and extensive housing estates) is undermining the rural character of the area. Many new developments do not respect local vernacular building styles, and these are further reducing the area’s distinctiveness. The long views and lack of trees in the Skerries Coast LCA mean that it is difficult to screen, and is therefore visually sensitive to new development.

The tranquil, open landscape is also vulnerable to increased traffic, generated by the surrounding towns and tourist attractions. Particular concerns include congestion, car parking capacity and conflicting uses of the A2, between cars, buses, cyclists and walkers.

Inland, the gradual loss of traditional rural features such as stone walls and barns is altering the appearance of the landscape. Telecommunications masts are now prominent within the landscape.

Light pollution is a further issue, and is particularly serious because its impacts extend over a large area. For example, the night lights of Portrush and Portballintrae are visible from the Giant’s Causeway and undermine its remote character.

Management Guidelines

The Skerries Coast contains many distinctive features, valuable views and important ecological sites. It is important that these are protected through good management.

Protection of key views

The Skerries Coast contains and contributes to a number of key views whose rugged and undeveloped character should be protected. Views from “the Burnfoot” to the key landmarks of Dunluce Castle, Benbane Head, White Rocks and Portrush are particularly important. Light pollution from Portrush should be managed to reduce its impact in views from the Giant’s Causeway World Heritage Site.

Protection of traditional landscape and settlement patterns

These patterns are fundamental to the character and distinctiveness of the area. Some have already been undermined by recent development, which increases the need for strict control in the future. Any new development should respect and blend with the existing settlement pattern. There should be no further development to the north of the A2 on the Curren Strand/ Ballybeg sand dunes, nor between Ballycraig Lower and Portballintrae. This is to protect the undeveloped character of the coast and the intact rural setting of Dunluce Castle. Between Portrush Caravan Park and Ballybogey road, the pattern of regular but dispersed farmsteads and single dwellings should be respected. The inland “patchwork” effect of the landscape should be maintained through the management of stone walls, grassland and gorse, and retaining field shapes and boundaries.
Screening of existing inappropriate development

Where buildings have been constructed in visually intrusive locations, they should be screened or softened with planting of native deciduous trees. Locations where this would be advantageous include the new buildings to the north of the A2 in Portrush, and the extensive caravan sites to the south of the A2 in Portrush.

Maximising ecological diversity

The Skerries Coast contains a variety of habitats which support a diversity of flora and fauna. The ecological value of these habitats should be protected and enhanced, particularly the cliffs, sand dunes and chalk grassland.

Improving traffic management

The improvement of public transport should reduce the volume of cars on the A2, thus reducing congestion and visual impact of the road, and making the roads safer and more pleasant for all users. To protect the character of the coast, no further car parks/parking areas should be constructed along the coastal road.
2. Bush Valley

Location

The Bush Valley landscape character area (LCA) is located towards the west of the Causeway Coast AONB, between the Causeway Plateau and the Skerries Coast landscape character areas. The Bush Valley includes Portballintrae and Bushmills, which are the largest settlements within the AONB.

Key Visual Characteristics

- Bush River, flowing in a shallow, wooded gorge through Bushmills, then through open countryside and sand dunes to the coast.
- Settlements of Bushmills and Portballintrae give the area a settled and developed character.
- Lush and relatively low-lying farmland, with regular shaped, medium sized fields divided by hedges.
- A strong parkland influence on the landscape, with woodland and copses of deciduous trees.
- Varied coastal character, including the distinctive rounded bay of Portballintrae, Bushfoot Strand beach, sand dunes and cliffs.
- The valley is largely visually contained, although there are distant views to the Causeway Plateau and the distinctive crenulated cliff profile of the Giant's Causeway to the north east.
- Leisure facilities include the Heritage Railway, golf course, caravan parks and apartment developments.

The Physical Landscape

This landscape character area is significantly influenced by the Bush River, which over thousands of years, has eroded a broad valley through the underlying basalt and limestone rocks. The valley has gently sloping sides, although the river has eroded a steep, shallow gorge where many mills were later established, giving Bushmills its name. The sediment deposited on the valley floor by the river has smoothed the profile of the valley, and created fertile farmland.

The coastal landscape is complex, including rocky headlands and the horseshoe shaped bay of Portballintrae. At the mouth of the Bush River is a sand dune system, associated with Bushfoot Strand beach. This has been designated an ASSI.

The ecology of the Bush Valley is distinctive from other areas of the AONB. Its low-lying land, mixed farming practises and estate planting have created a variety of habitats including deciduous woodland (including sycamore, ash and horse-chestnut trees), watermeadows and hawthorn/blackthorn hedgerows. The Bush River and its banks are also rich habitats, supporting salmon, trout, herons and otters.

The Man-made Landscape

The Bush Valley contains the two nucleated and rapidly expanding settlements of Bushmills and Portballintrae. The two settlements are very different in their history and focus. Bushmills developed as an industrial town on the Bush River, where the water power was harnessed to drive water wheels for a number of manufacturing industries. A tributary of the Bush River is still used in the production of Bushmills whiskey today. The distillery warehouses dominate many views of the town, as they are large buildings highly visible on elevated land on the edge of the town.
Portballintrae is focussed around Ballintrae Bay, and has developed from a small fishing village into a significant holiday resort. However, the settlement dates back to a much earlier time: The Lissanduff earthworks to the south east of the village are located close to the confluence of the Bush River and the sea. They are thought to have an ancient ritual use associated with the meeting of fresh, spring and sea water. The Bush River is named after a water goddess, and this combination of iconic features suggests that there is a very ancient ritual landscape associated with the settlement.

Both Bushmills and Portballintrae have grown to several times their original size in the last 50 years, and the most recent development (on higher land than the older parts of the settlements) is very clearly visible within the Bush Valley. Many of these developments integrate poorly with the surrounding landscape and are often unsympathetic with the local vernacular in terms of style, mass and materials.

The fertile and sheltered nature of the land means that the Bush Valley has become an important area for both pastoral and arable agriculture. The result is a patchwork of fields and woodland spread across the valley. Scattered farms are situated alongside roads outside the main settlements, generally on higher land which is less likely to flood than the valley floor.

The presence of the Dundarave estate on the eastern side of the Bush Valley has had a major impact on the appearance of the valley. The estate land has been designed, and includes parkland and woodland, as well as some agricultural fields.

The Bush Valley landscape includes a number of leisure features, including a golf course, caravan parks and a Heritage Railway which follows the old tram line between Bushmills and the Giant's Causeway. A footpath runs alongside the railway line, but otherwise, opportunities for formal access to the countryside are limited.

Response to the Landscape

The woodland, hedgerows, settlements and sheltered location of the Bush Valley LCA create a soft landscape, which contrasts with the more elevated and wild plateau landscapes around it.

Despite the industrial history of Bushmills, the valley is strongly rural in character, and away from the settlements feels quiet and tranquil. However, inappropriate development on the edges of settlements and in the surrounding countryside is beginning to undermine the rural appearance of the landscape, particularly around the settlements.

The settlements themselves provoke a number of different responses. The historic core of Bushmills has been designated a Conservation Area because of its historic interest, distinctiveness, and many attractive traditional buildings. Although the number of derelict/ poorly maintained buildings gives the old town a slightly neglected feel, new investments and regeneration initiatives including new shops, restaurants, youth hostel and park are improving the town's atmosphere. The newer parts of the town, although better maintained, are generally less distinctive and have a much weaker sense of place. Portballintrae has a deserted feel in the winter, owing to the high proportion of second homes in the village and the lack of services.

Landscape Sensitivity/ Forces for Change

Much of the Bush Valley LCA is within the setting of the Giant's Causeway World Heritage Site, and is therefore highly sensitive. As well as the appearance of the Valley in daylight, the evening/ night time impacts of street lighting also affect the views and sense of remoteness at the Giant's Causeway.
Many lessons in landscape sensitivity can be learnt by observing the current situation in the Bush Valley. For example, the impacts of development on higher land can be observed at the southern edges of Bushmills and Portballintrae, where new development is highly visible from the surrounding area and appears separated from the rest of the settlement. In addition, in Portballintrae, linear development on the Bushmills road has undermined the nucleated form of the settlement around the horseshoe curve of the bay. The large industrial buildings on the eastern side of Bushmills appear highly intrusive because the landscape is particularly sensitive to development which is out of scale and which uses highly visible/reflective materials.

Pressure for new development within the Bush Valley is leading to a gradual narrowing of the gap between Bushmills and Portballintrae. It is important that the two settlements are not allowed to merge, because the overall appearance of the Bush Valley will be damaged by continuous development; the two settlements will lose their distinct identities, and an important view down the Bush Valley to the sea will be lost.

Changing land use is a further force for change in the Bush Valley. For example, the use of fields/sand dunes for golf courses results in a change in appearance and management of the land, the loss of traditional vegetation, the planting of non-native vegetation and the denudation of river banks. Even in areas where farming is continuing, the traditional appearance of the landscape is threatened by changing farming practise, particularly the removal of hedgerows in areas used for arable agriculture, and the poor management of hedgerows in pastoral areas.

As in other areas of the AONB, issues of traffic and parking put further pressures on the landscape, particularly within the settlements. In the Bush Valley the problems are enhanced because of the relatively large numbers of residents and tourists using the area.

Management Guidelines

The history of settlement in the Bush Valley leads to a number of specific management issues for this landscape character area.

New Development
It is extremely important that any new development in the Bush Valley is designed and sited to respect and maintain the character of the area and minimise the visual impact of the landscape. For example, building on higher land should be avoided, as should linear development. Management of parkland to protect the setting of the settlements. The gap between Bushmills and Portballintrae should be maintained. In addition, new development which is particularly visible in views from the surrounding area should be screened.

Protection and enhancement of countryside forming the setting of settlements
The settlements of the Bush Valley have a distinctive setting of farmland and parkland. This should be protected and enhanced through: A deciduous woodland planting programme to protect and enhance the wooded character of the valley; a programme of hedgerow management, and replanting of hedgerows where they have been removed.

Recreation management
The Bush Valley contains a variety of formal and informal recreation sites, and these should be managed with particular regard to their ecological value. For example, improved management of the golf course to increase biodiversity, and also to emphasise the river corridor within the wider landscape. Biking on sand dunes damages this sensitive environment and should be discouraged.
River and river corridor management
There a number of opportunities for improving the management of the river corridor to increase the ecological value of the channel and banks, including aquatic planting, tree planting and protection of the watermeadows. Water quality should be monitored, to ensure that it is not adversely affected by slurry spreading within the catchment area.

Lightspill and the setting of the Giant's Causeway World Heritage Site
Part of the Bush Valley (including Portballintrae) is visible from the Giant's Causeway WHS. Light pollution should be managed to reduce its impact in views from the WHS.
3. The Causeway Plateau

Location

The Causeway Plateau Landscape character area (LCA) is located in the middle of the Causeway Coast AONB, and contains the World Heritage Site of the Giant's Causeway. The Bush Valley LCA is to the west, and the Magpie Coast LCA is to the east. The AONB is at its widest point in the Causeway Coast LCA, extending up to two miles inland.

Key Visual Characteristics

- An elevated and open plateau, rising gently up to the coast, with dramatic cliffs plunging down to sea level.
- The famous basaltic columns of the Giant's Causeway.
- Distinctive crenulated coastline, with numerous small rocky bays and small islands.
- An area of mixed farming, with regular shaped fields divided by hedgerows and post and wire fences.
- Coastal heath along the cliff edge.

The Physical Landscape

The Causeway Plateau LCA contains such fine examples of basalt formations and landform that it has been designated a World Heritage Site and given protection accordingly. There are numerous further designations covering the geology and ecology of the Giant's Causeway and its associated coastline, including National Nature Reserve, Area of Special Scientific Interest, Candidate Special Area of Conservation and Wreck Site.

The jagged, rocky coastline has many islands offshore. It has been eroded into a series of small rocky bays and headlands within the larger feature of Benbane Head. Here, the famous geological sequence of basalt is visible. Along the shoreline and lower parts of the cliffs, the spectacular hexagonal columns of the lower basalt are visible, including the formations of the Giant's Causeway and the Giant's Organ. Basalt is volcanic lava, and the hexagonal columns were created when it cooled very slowly. Above the lower basalt is a band of red rock, formed by the weathering of the basalt to produce mineral-rich material. Above this band are the middle basalts, which form sheer tops to the cliffs. These basalts cooled more quickly than the lower basalt and did not form columns.

The majority of the Causeway Plateau LCA is comprised of an elevated, open plateau which extends for several miles inland. The plateau is not flat, but rises gently up to the cliff top (reaching 100m ASL on Benbane Head). There are several small streams flowing east-west across the plateau which have eroded shallow valleys.

Along the cliff tops is a valuable area of coastal heath, which supports a rich ecology. In places it extends inland as far as the coast road, and is clearly visible in spring and early summer because of the flowering gorse. The Causeway Plateau contains very few trees (they are restricted to the river valleys) and biodiversity has been lost through the improvement of farmland prior to the creation of the ESA scheme.

The Man-made Landscape

The Causeway Plateau is a rich archaeological landscape, containing souterrains, raths and other features, plus the ruins of the ancient castle on the cliff top at Dunseverick.
Historically, settlement within the Causeway Plateau LCA has been largely restricted to the nucleated villages of Lisnagonogue and Dunsevenick, with scattered farms across the plateau. Very little settlement was located north of the B146 (coast road) due to the exposed and elevated situation.

Development at the Giants Causeway itself began in Victorian times, with the building of the Causeway Hotel, Causeway School and tram terminus. This development has continued with the construction of tea rooms, visitor centre, shops, toilets and extensive car parks at the Giant's Causeway site.

In recent years, farmsteads or "clachans" have been redeveloped as second homes and holiday cottages. This coupled with linear development along roads, has resulted in cumulative impact on views inland from the Causeway Cliffs, with a resultant loss in the sense of isolation and tranquility.

The area supports both arable and pastoral farming, and this mixed farming creates a patchwork landscape pattern. It is an open and exposed landscape, with little vegetation. Fields on the Causeway Plateau are generally regular in shape and medium in scale. Traditionally they have been divided by low/well trimmed blackthorn hedges or gorse hedges, but many of these have now been replaced by post and wire fencing.

Response to the landscape

Although the Giant's Causeway is beyond the cliff edge, the sweep of the land up to the cliff top enhances the sense of anticipation. The plateau has the feel of a "lived-in" landscape, which contrasts with the wildness of the coast and cliff tops. Distinctive views to the crenulated coastline and elevated cliff tops give a sense of place and orientation.

Once the coast comes in to views, the cliffs and formations of the Giant's Causeway provoke a very strong reaction. The vast scale, beauty and rarity of the Causeway Coast creates a sense of wonder and is quite breathtaking. The wild character of the coastline adds to the drama of views and sense of the splendour of nature. From the cliff path there are panoramic views out to sea and inland.

However, piecemeal development and the physical massing of buildings and hard landscaping within the curtilage of the World Heritage Site has eroded the sense of wilderness.

Landscape Sensitivity/Forces for Change

The open character of the Causeway Plateau, the lack of trees and the long views mean that any development is clearly visible from a considerable distance, including from the raised land at the cliff tops. In addition, pockets of development located in different parts of the Plateau have a cumulative impact on views. Of particular concern is the siting of new development on the northern side of the coast road (where there is no tradition of building), and linear development along roads throughout the plateau.

In addition to its location, the landscape is also sensitive to the extent, mass and design of new development, and the replacement of traditional buildings with modern ones. Large scale buildings or groups of buildings do not sit well with the more compact traditional vernacular styles of the area, and white render makes buildings highly visible within the landscape.

The elevated position of the Giant's Causeway enables views to extend to areas beyond the
Causeway Plateau LCA. The most significant view is westwards from the Causeway Hotel, across Portballintrae and the Bush Valley to the Skerries coast and Portrush. Development in Portballintrae is clearly visible, and at night all settlements are illuminated, reducing the sense of remoteness and the setting of the Giant's Causeway.

The relationship between the Giant's Causeway and its visitor facilities is an important issue which requires conservation-led, sustainable management and infrastructure solutions.

There are a number of land management issues which affect the appearance of the Causeway Plateau landscape, including choice of crops, farm diversification, treatment of field boundaries, and improving the biodiversity of the fields. The most visually significant of these are maintaining a mixed farming regime, and managing/ replanting gorse and blackthorn hedgerows rather than replacing them with post and wire fences.

Physical access is a key issue within this LCA. There is a general problem of road congestion due to high traffic levels and lack of an effectively delivered integrated transport policy. In addition, there is a lack of footpath access to the eastern basalt formations. This is due to the lower cliff path having been closed for several years following a landslip. There are few public rights of way across the Causeway Plateau.

Management Guidelines

Detailed management guidelines for the Giant's Causeway are provided elsewhere in this document, and in other documents. The following guidelines therefore relate to the remainder of the Causeway Plateau.

Restriction of new development

The Causeway Plateau has traditionally been an open and uncluttered landscape with relatively little settlement. This historic pattern should be respected, through the restriction of development along and to the north of the B146 coastal road. Large-scale developments, and small –scale developments which have a cumulative impact in views should not be permitted.

Farm Management

The characteristic pattern of mixed farming should be maintained: Grazing, potatoes, cereals etc., with fields divided by gorse or blackthorn hedgerows, or dry stone walls. These field boundaries should be reinstated where post and wire fencing has been substituted. Measures to improve the biodiversity of farmland should be supported and expanded. One example of such a scheme is the National Trust's programme of meadow restoration through the reduction of the nitrate volume in the soil.

Management of Coastal Heath

Coastal heath is a relatively rare habitat which should continue to be protected, managed and recreated where possible.

Public access to the countryside

Coastal paths should be reopened where safe, and a network of footpaths/ bridleways established which enable public access to the whole of the Causeway Plateau. Parking of cars on road verges should be discouraged.
4. The Magpie Coast

Location

The Magpie Coast landscape character area (LCA) is located to the east of the Causeway Plateau, and stretches from Dunseverick harbour to Carrick-a-Rede.

Key Visual Characteristics

- Contrasting black basalt and white chalk rock formations along the coast.
- Distinctive profile, consisting of a flat plateau on the cliff tops, with a ridge of higher land inland running parallel to the coast.
- Broad sandy beaches, including White Park Bay.
- The white tower of Ballintoy church and the adjacent flat strip fields are key landmarks.
- Sheep Island dominates views out to sea, with Rathlin Island in the distance.
- Evidence of former industries at the coast, including quarrying, fishing and kelp drying.

The Physical Landscape

The combination of basalt and chalk in the geology of this landscape character area is fundamental to both its distinctive landform and its black and white "pied" appearance. The flat coastal plateau is formed of chalk, with the basalt creating a ridge of higher land behind. At the coast, folding and faulting of the rocks has caused them to appear intermingled. Rocks and pebbles on the beach are a mixture of white chalk and black basalt.

The coastline is highly distinctive, and consists of a series of bays and headlands. The bays are mostly sandy (the finest example being White Park bay, which has a dune system inland), whilst the headlands are rocky, with islands and rock formations including arches and unusual cone-shaped features. The largest island is Sheep Island, which forms the focal point of views out to sea between Ballintoy Port and Carrick-a-Rede. The majority of the formations and islands are formed in black basalt rock, which contrasts with the white chalk of the cliffs behind. An exception is Carrick-a-Rede, which is the remains of a volcanic vent. Solidified lava is still visible in the chasm between the island and the shore.

At the top of the chalk cliffs is a chalk plateau, which extends for approx. 500m inland. The plateau undulates between 50 and 70m AOD, although it appears relatively flat because of its smooth, open appearance and the contrast with the steep ridge of basalt inland. This basalt ridge rises steeply to 200m AOD. It has a hummocky appearance, with outcrops of rock and scree, and because it is less free draining, there are small patches of raised bog in the dips.

Vegetation is largely restricted to gorse scrub on the higher land, although the coast supports a variety of seaweed, salt-tolerant and fresh water grasses and wild flowers, and a large and varied bird population. The dune system at White Park bay is particularly important ecologically as it is the only dune system in the AONB not to be partially developed as a golf links. The importance of the LCA's geology, ecology and bird life is recognised in the number of designations in the area, including ASSIs at White Park Bay and Carrick-a-Rede, a candidate SAC at White Park Bay, and ASSI and Special Protection Area status on Sheep Island for the cormorant population. Although this LCA is not well wooded, sycamore trees have been planted around older farms, and these have become a feature within the landscape.
The Man-made Landscape

The Magpie Coast LCA has a long history of settlement. It contains a concentration of ancient archaeological sites (including chambered graves, tumuli, and cairns) as well as raths at Dunboy and Castlea.

Today's settlement pattern is a combination of nucleated villages, hamlets and scattered farms. The largest settlement is Ballintoy, an unusual village in that it comprises three areas of development. The largest part is a linear village along both sides of the B15 between Larry Bane Head and Islandoo. The village has developed at the join between the coastal chalk plateau and the basalt ridge, so the ridge forms a sheltering backdrop to the village, but there are open views across the chalk plateau to the sea. The second part of the village is located between the main village and the sea. It comprises the white-painted Ballintoy church (which forms a prominent and distinctive landmark), and the nearby cluster of houses and farms known as "the castle". Thirdly, at the coast, are cottages at Ballintoy Port.

Outside Ballintoy there are small nucleated settlements at Portbradden (associated with a harbour at the coast), and Templastragh. Elsewhere there are scattered farms situated just inland of the A2, between the improved pasture and arable fields of the chalk plateau, and the rough grazing on the higher land. Settlement on the coastal side of the A2 is minimal.

Farming patterns and field boundaries increase the contrast between the coastal chalk plateau and the inland basalt ridge. The strip fields on the plateau are a local landmark, particularly where they are associated with Ballintoy church. These fields run north-south between Ballintoy village and the cliff top. They are separated by wire fences, which gives an open appearance to the landscape. The land is used for arable crops and as improved pasture for grazing. Further west, the strip fields have been subdivided, but are still recognisable. Inland, on the higher and less fertile basalt, the land has a very different appearance. Used for rough grazing, the area is divided into irregular shaped fields by stone walls, stone banks and gorse hedges. Many of the stone walls and banks have fallen into disrepair and some have been replaced with post and wire fencing.

There is a long history of industry within the Magpie Coast LCA, and much industrial archaeology is still visible. Quarrying has occurred for chalk, basalt and limestone, and lime kilns remain intact at Ballintoy Port and Larry Bane Head. Fishing ports developed at Ballintoy Port and Portbradden, with the most famous fishing site at Carrick-a-Rede island, which fishermen access via a rope bridge (a popular tourist attraction today).

Response to the Landscape

The first impression of the Magpie Coast LCA when arriving by road is the contrast between the elevated, rough textured land of the inland basalt and the smooth, neat appearance of the chalk plateau. When approaching from the east, the LCA is seen from an elevated viewpoint, with Benbane head forming a distinctive backdrop.

However, as one moves through the area, each part of the LCA generates a different response. The coast feels relatively remote, particularly away from the vehicular access points. The coastal rock formations and Whitepark Bay beach are spectacular and memorable, as are the views to Sheep Island. Houses are hidden in views from Whitepark Bay, which increases the Bay's tranquillity and unspoilt character.

*The coastal plateau has a settled, pastoral feel which contrasts with the sense of remoteness and wildness experienced on the higher ground inland. This is reinforced by the lack of footpath access to the inland area.*
Landscape Sensitivity/ Forces for Change

The Magpie Coast LCA contains several visitor attractions (Carrick-a-Rede rope bridge, Ballintoy Port, White Park Bay, viewpoints etc.) which receive considerable numbers of visitors. Inevitably this causes visual impacts on the landscape, including parking, traffic queues (this is a particular problem on the narrow, hair-pin roads to Ballintoy Harbour and Portbraddon), litter, loss of tranquillity and intrusive signage.

Location and style of new development is a further pressure on the Magpie Coast landscape. There is currently little development at the coast, enabling the coastline to retain its dramatic and unspoilt qualities. However, its open and unspoilt character makes it vulnerable to insensitive development in the future. The sensitivity of the landscape extends to small items such as street furniture: Ballintoy Port currently has examples of benches, litter bins and lamp posts which are more suited to an urban park than a remote coastal location. A further development which impacts on the character of the landscape is telecommunications masts. These are visible from many of the upland parts of the Magpie Coast LCA, and this is eroding the sense of remoteness and wildness of the area.

Further inland, particularly in the elevated areas, changes in farming practise are having an effect on the appearance of the landscape. The most noticeable change is the loss of dry stone walls and stone banks as they fall into disrepair.

There are many ancient sites within the Magpie Coast LCA, but signage and interpretation is extremely limited. There is a risk that some sites will become increasingly vulnerable due to lack of management and changing farming practises.

Management Guidelines

Location and design of new development

Any new development should be restricted to less sensitive areas, such as areas of existing settlement, and natural hollows. Land to the north of the A2 and B145 (Coast roads) should be kept free from development. Skylines should also be protected from development, including those visible from Whitepark Bay. If any further telecommunications masts are required, they should be located where they will have minimal visual impact.

The form and style of new development is also important, and new buildings should be carefully designed to fit with traditional buildings and their landscape setting in terms of their mass, colour, height, materials and features. This care in design should extend to restoration of older development, and to street furniture, which should not be too municipal in appearance.

Maintenance of distinctive landmarks and features

The distinctive black and white appearance of the Magpie Coast should be maintained. Other colours and textures of stone should not be introduced. The settings and visual integrity of key landmarks such as Ballintoy church, the strip fields and Sheep Island should be protected. The contrast between the openess of the plateau and the ruggedness of basalt ridge should also be maintained.

Ecological and cultural diversity

The Magpie Coast is rich in wildflowers, bird life, geological sites and industrial archaeology. In addition to protecting the area’s existing resources, there is potential to increase the biodiversity of farmland through wildflower seeding, and to improve public access and interpretation of
archaeological sites.

**Whitepark Bay**

Current practices of sand removal, and biking on the beach and dunes are doing considerable damage to these important habitats. A programme of education and patrols may help to improve the situation.

**Public Access**

Management of the coastal plateau footpaths should continue, and potential routes for inland access (incorporating viewpoints and archaeological sites) should be investigated.
5. The Kinbane Plateau

Location

The Kinbane Plateau landscape character area (LCA) is located towards the eastern end of the Causeway Coast AONB, between the Ballycastle Valley and the Magpie Coast Landscape Character Areas.

Key Characteristics

- Views to Rathlin Island across Rathlin Sound
- High, steep basalt cliffs with no beaches
- An elevated landscape with a hummocky topography
- Very limited access to coast
- Inland, landscape is strongly textured, due to rough grassland, dry-stone walls, bog plants, forest and gorse
- Views to coniferous forest outside the AONB.
- Poor drainage, causing areas of raised bog
- Abandoned farm buildings
- Hills of Knocklayd and the Antrim Glens dominate views inland.

The Physical Landscape

Hard basalt rocks form the base of this LCA, which is situated on an elevated plateau, mostly above 130m AOD. The land drops slightly towards the cliff edge, but the cliffs are still high and sheer. There are no beaches, and few islands. The coastline is less crenulated than other parts of the Causeway Coast, although it has large bays.

Rathlin Island dominates views out to sea. Black and white horizontal banding on its cliffs makes the island highly distinctive. Beyond Rathlin Island, the Scottish islands and mainland can be seen on clear days. Fair Head (east of Ballycastle) is also a prominent landmark.

Inland, the topography is gently undulating, creating a repeating pattern of hummocks and hollows. Views inland are dominated by the dome of Knocklayd hill, which rises to 514m AOD.

The ecology of the Kinbane coast reflects its elevated topography and impermeable geology. In hollows with poor drainage, raised bogs have developed, with heather moorland on the higher land. A number of wetland grass species (including juncus) are supported, along with peat, heather and gorse. The Kinbane Plateau Landscape character area is relatively well wooded, with some pine trees within the AONB, and larger expanses of forest visible on the southern horizon. Deciduous trees (sycamore and ash) are often found around farms.

The Man-made Landscape

The high land in the Kinbane Plateau landscape character area is not fertile, and has had little tourism development. Settlement is sparse, and restricted to a few scattered farms on lower land towards the coast. However, the landscape displays evidence of past occupation of the higher land, including abandoned farmsteads and buildings, and irregular shaped fields divided by dry-stone walls/banks and gorse hedgerows. Many of the dry-stone walls have fallen into disrepair and some have been replaced with post and wire fences. Kinbane castle is the largest historical feature within the landscape character area, although there is currently no access to the site because of erosion on the coastal footpath.
Response to the Landscape

The only access point to the coast is at Kinbane, and the cliff path is currently closed. Viewed from the car park, the high, sheer cliffs appear dramatic and intimidating. There are also magnificent views across Rathlin Sound to Rathlin Island.

Inland, the landscape feels wild, exposed and remote. The topography prevents significant views of the coast and Rathlin Island so there is not a strong connection with the sea. Rather, the landscape is dominated by Knockladyd.

The combination of vegetation and features – gorse, dry-stone walls, bog plants, heather, trees, etc. give the landscape a strongly textured appearance which is one of its key characteristics. The sense of wildness and remoteness of this area is enhanced by the lack of settlement and tourist facilities.

Landscape Sensitivity/ Forces for change

Changes in this landscape have occurred as a result of farming practise, abandonment of land and forestry planting. The range of habitats within the Kinbane Plateau is significant and includes the most important area of raised bog, heather and moor in the AONB. Opportunities exist to reinstate and manage heather moorland and gorse hedgerows, as well as to conserve areas of peat and manage raised bogs for their ecological value and to retain the strongly textured appearance of this landscape.

Landscape features should also be protected. For example, dry stone walls and banks should be repaired or reinstated where possible. Opportunities exist to restore abandoned farm buildings to new uses such as dwellings or to development them as recreational facilities such as camping barns.

Management of visitors is a further issue within this Landscape character area. There are relatively few visitor facilities- limited to a layby close to the junction of the B15 and Glenstaghey road, and the carpark at Kinbane. The latter is reached via a narrow and twisty lane which becomes congested with traffic in the summer months. Access to the landscape is limited, as there are no public footpaths inland, and the cliff path is currently closed.

The cliffs and cliff tops are particularly sensitive to change or development as they are visible from Rathlin Island.

A further force for change is the proliferation of telecommunications masts, which are being constructed in upland areas throughout the AONB and threaten to undermine the remoteness of the upland landscapes.

Management Guidelines

Management of recreation

The lack of access to the coast and inland areas should be addressed, by reopening the coastal path and increasing the inland footpath network. There is potential to open up the area for recreation, including walking, cycling, fishing and camping, although this must be done in such a way that the wild and remote character of the landscape is not undermined. There is also potential for the restoration/ reuse of existing derelict agricultural buildings for recreational purposes. A minibus shuttle between the B15 and Kinbane Castle would reduce the traffic problems on the narrow lane to the coast.
Maintenance of key views and special character

The wild and textured character of the Kinbane Plateau landscape should be protected. In addition to vegetation, features such as stone walls, banks and vernacular buildings should be protected and repaired where necessary. The distinctive character of the Kinbane Plateau stems partly from the lack of settlement in the area. The resulting senses of wilderness and remoteness should be maintained. Great care should be taken in the siting of telecommunications masts to ensure that they do not further undermine the sense of remoteness and the unspoilt countryside. The cliffs of the Kinbane Plateau LCA (which are visible from Rathlin Island) are particularly sensitive. They should be protected from any development which may reduce the dramatic and unspoilt appearance of the cliffs in this view.

Ecological management

A number of habitats exist within the Kinbane Plateau, and these should be carefully managed, and protected and enhanced where possible. Such habitats include peat, raised bogs, gorse, heather moor and cliffs. Any pressure for further forestry in the area should be resisted.
6. The Ballycastle Valley

Location

The Ballycastle Valley landscape character area (LCA) is located at the eastern end of the Causeway Coast AONB. It is a small area, restricted to the narrow strip between the B15 and the coast. Its landscape characteristics have much in common with the adjacent Antrim Coast and Glens AONB.

Key Characteristics

- Views to Ballycastle Town, with the lower slopes of Knocklayd forming the backdrop.
- Landscape forms the approach and setting to the town.
- Smooth green pastures divided by drystone walls and gorse hedgerows.
- Parkland influence (Clare Park).
- A relatively large number of trees (mostly pine, with avenues of deciduous trees on the approach to Ballycastle.
- Views out to sea dominated by Rathlin Island and Fair Head, with distant views to the Scottish Islands and Campbeltown Peninsula on clear days.
- Restricted access to coast.

The Physical Landscape

The underlying geology of the Ballycastle Valley Landscape character area is primarily limestone, which gives rise to the smooth, rounded appearance of the landscape, and the white cliffs at the coast. The coastline is gently crenulated, with several small bays and a wave-cut platform. Caves are common features in the cliffs, but there is no formal cliff path.

The highest point of the LCA is at its western end 100m AOD. It gradually slopes down towards Ballycastle in the east, reaching 40m AOD on the edge of the town. At the western end of the LCA, the land also slopes down towards the cliff edge. The weathered nature of the cliffs, and the lack of public access to them make them particularly good sites for nesting birds. Inland, much of the pasture has been improved, limiting its wildlife value, but the woodland and trees contribute to the variety of wildlife habitats within the AONB.

The Man-made Landscape

Settlement within the Ballycastle Valley LCA is limited to a few farms spread out along the B15, and a small development of sheltered housing bungalows at Camduff. However, there is a strong human influence on the landscape in the form of regular-shaped fields which are a key feature of the landscape, divided by drystone walls and gorse hedgerows. Fields mostly run perpendicular to the coast. Farming is almost entirely pastoral, and the improved grassland is a strong, vivid green in colour which forms a bright contrast with the flowering gorse during the spring and summer.

The tower in Clare Park is also a prominent feature, particularly in views from the western side of the town. There is little opportunity for recreation within the Ballycastle Valley LCA. Public access is currently restricted to a field on the cliff top at the western edge of the AONB. This is currently a popular location for kite flying.
Response to the Landscape

Views from this LCA are dominated by features outside it - Rathlin Island, Fair head, Knockladyd and Ballycastle town. The landscape within the LCA is not particularly memorable in its own right, but forms an important foreground setting in views to and from these wider features.

The proximity of Ballycastle, particularly since its recent expansion up the western side of its valley, means that views of the town dominate this landscape character area, and it "borrows" a settled and developed character from the town. The open, undeveloped land to the north of the B15, between Clare Park and the eastern edge of the AONB is particularly important open space as it provides a gap between the recent extension of Ballycastle and the coast.

When observing the view westwards across the Ballycastle valley, the similarity in landscape character between the Ballycastle Valley LCA and the lower slopes of Knockladyd to the west of the town is very noticeable. This creates a visual and physical link between the Causeway Coast and Antrim Coast and Glens AONBs.

Landscape Sensitivity/ Forces for change

The recent rapid and extensive expansion of Ballycastle has put a considerable pressure on the Causeway Coast AONB. So far, no additional development has taken place within the AONB, but development has had a significant effect on the character of views from within the AONB.

This stretch of coastline is visible from Rathlin Island, and as such is vitally important in maintaining a buffer between development in the town and the cliff edge, and in maintaining the undeveloped appearance of the cliffs in views from Rathlin Island.

Although this LCA covers a relatively small area, it is has an extremely important function in providing the setting of Ballycastle, both as an approach to the town along the B15, and as a backdrop in views westwards from within the town. It therefore is seen in an important context by a large number of people (both residents and tourists).

The Ballycastle Valley LCA provides an important link between the Causeway Coast AONB and the adjacent Antrim Coast and Glens AONB. At the moment, the join is seamless in terms of landscape character and quality, and it is important that future management of the two AONB areas retains this.

Management Guidelines

The landscape's function as a buffer and backdrop

The Ballycastle Valley LCA has an important function as the setting (approach and backdrop) to Ballycastle. The landscape needs to be carefully managed and protected to ensure that it continues to fulfil this role effectively. Additional screening of new buildings on the western edge of Ballycastle would help to reduce the impact of the town in views from the both Causeway Coast and the Antrim Coast and Glens AONBs. The Ballycastle Valley LCA currently contains little settlement, but acts as an important buffer between Ballycastle and the cliff edge. The cliff top should remain undeveloped to protect views from Rathlin Island to the mainland.
Improving public access

Access to the cliff tops is currently restricted to a small section at the eastern end of the AONB. Negotiating public access agreements to further stretches of the coastline would enable coastal walks westwards from Ballycastle into the AONB.

The Antrim Coast and Glens AONB

Management issues within the Ballycastle Valley LCA are very similar to those of the adjacent Antrim Coast and Glens AONB. The two AONBs are intervisible, and it is therefore important that management policies are broadly similar between the two organisations.

Tree planting

Trees are a distinctive feature of the Ballycastle Valley AONB. The planting of native deciduous trees is to be encouraged in this area, particularly around settlements and farms.
Appendix 3
Causeway Coast AONB Setting Analysis:
Methodology and results
Causeway Coast AONB Setting Analysis

Assessment
Any designated area/landscape does not exist in isolation and has a strong visual and physical link with the area which surrounds it. In the case of the Causeway Coast AONB, this wider area has a very strong influence on the views from and to the AONB, on its character and atmosphere. For example, a town adjacent to an AONB may be visible from it, making the edge of the AONB more urban, settled and busy in character.

The area visible from an AONB is known as its setting, and is defined by the zone of visual influence (ZVI) of the AONB. It is important to identify the setting, as any development or change in land management within the setting will potentially impact on the AONB itself. Issues of cumulative impact (where several small developments outside the AONB are visible from a single point within it) are particularly relevant. Careful management of the setting is therefore a fundamental part of AONB management.

Methodology
The setting is largely defined by topography, but is modified by vegetation (particularly woodland) and buildings. The methodology for defining the setting is relatively simple. The first stage is a map-based analysis of the topography to indicate which areas are broadly visible from the AONB and which areas are hidden. This is then checked/modified in the field, firstly by looking outwards from the AONB to identify the furthest points visible. These points are then plotted and joined on a map. The accuracy of this line is confirmed by travelling towards the AONB on all approaching roads/footpaths, and marking on the map the point at which the AONB comes into view.

The Results of this Study
The results for the Causeway Coast AONB setting analysis are shown in drawing Drawing 5 (see main document). The topography of the AONB and its surroundings mean that there are several prominent points within the AONB which are visible from considerable distances outside it. These include Curran Strand dunes at Portrush, Benbane Head, Lanimore Hill and Camduff Hill. Bushmills town (within the AONB) is also prominent in views to the west and south.

The setting of the Causeway Coast AONB includes the eastern side of Portrush and the Western side of Ballycastle. This is of particular significance given the recent and potential future expansion of these towns. The AONB is also visible for a considerable distance along the Bush valley, south of Bushmills. Elevated viewpoints including Scudion Craig and Croaghmore also have long views towards the AONB.

In addition to landscape setting, the "Guide to Best Practise in Seascape Assessment" also emphasises the importance of considering seascape setting as it is fundamental to the character and qualities of the coast. Precise definition of the seascape setting was outside the remit of this study, but it includes expanses of open water for several miles offshore, and the islands of The Skerries, Sheep Island and Rathlin Island.

The extent of the Causeway Coast AONB setting is illustrated on drawing number Drawing 5 in the main management plan document (Volume II).

2 Guide to Best Practise in Seascape Assessment, Maritime Ireland/ Wales INTERREG (March 2001)
Appendix 4
Settlement Studies
Settlement Studies

BUSHMILLS

Location

Bushmills is located in the Bush Valley landscape character area. It is situated on the Bush River, approx. 2 miles inland from the coast, and approx. 8 miles east of Portrush. The settlement is located entirely within the Causeway Coast AONB, although the boundary runs along the edge of the southern part of the town.

Key Settlement Characteristics

The key elements identified during this assessment included:
- Bushmills is the largest settlement within the AONB
- The strong association between the settlement and the River Bush – historically, economically and geographically
- The tendency for built development to have turned its back on the river
- Limited access to and across the river
- The quality of some areas of existing open space particularly along the river
- The importance of the historic parkland and river valley setting to the town
- The high quality approach to the town from the north and the less distinctive approach from the south
- The considerable architectural interest and intact nature of the built form within the Conservation Area
- The high number and good range of local facilities and shops
- The number of derelict buildings within the main street and poor quality signage and shop frontages in some areas
- The limited extent of 'countryside' and thus the historical lack of physical separation between Portballintrae and Bushmills
- The number of visitor attractions (including Bushmills Distillery, Bushmills Inn, the new Heritage Railway terminus and the riverside Millennium Park) and the considerable opportunity for more
- Key landmarks include the clock tower, war memorial, churches and the distillery
- The opportunity to make Bushmills a more welcoming visitor destination

Settlement Form

The historic core of the town contains three components: the mills, the main street and the glebe. Water (specifically the Bush River) has always been fundamental to the town’s economy and development.

The earliest buildings in Bushmills are the watermills, one either side of the Bush River, situated immediately to the south of the southern bridge. These mills gave the settlement its name, and were used for various industrial purposes, including spinning flax. Later, the Bush River was harnessed for Hydro-electric power to run the Portrush-Causeway tram. On the eastern side of the river, to the north-east of the mills, is the High Street containing shops, houses and a clock tower. Its wide street and regular, symmetrical layout indicate that it was planned, possibly in conjunction with a local estate and the building of the northern bridge. The third historic core is situated on the western bank of the river, in an area of the town known as "Glebe". The name means "church land", and the area contains two churches, a rectory and a manse. The Grammar School was built immediately to the north of this area.
Since the second half of the 20th century the town has approximately tripled in size, almost entirely with residential development, which has in filled between the historic cores, and also expanded into large areas to the north and south of the old town, adjacent to the river and on higher land. New residential estates (post 1990) are of a similar size to the existing town, but are separate from it, creating a disjointed urban form.

Industrial development has also taken place at the distillery, with several warehouses constructed on rising land on the eastern side of the town. These warehouses are large in terms of both size and mass. The walls are constructed from sheet steel, painted dark green, whilst the roofs are of shiny sheet steel which reflects light. Two new schools have been built on the north-west edge of the town.

The Bush River flows in a relatively deep gorge through the town. This has proved impractical for development (except for a salmon fishery), so its secluded, wooded character has been retained, creating a green wedge through the town. However, there is currently no public access to this attractive stretch of river bank.

Settlement Character and Sense of Place

The development of Bushmills over time, and the varied landscape which surrounds the town have given rise to a settlement which contains areas of differing character.

Bush River Gorge and Mills
The original "Bushmills" area is now quiet and secluded, with the steep, wooded sides of the shallow gorge giving an intimate and attractive character. The historic mill buildings are attractive, and provide a sense of time depth as well as a sense of place. The lack of public access to the river means that the Bush River only forms a limited component of the experience of Bushmills, with opportunities for this to be improved.

The Glebe
The vegetated character of the river gorge extends into the Glebe land to the west. This area contains scattered houses, including the rectory, in extensive grounds with mature trees. The Glebe is elevated above the river on a small ridge, and its trees provide a backdrop and screen views to the town.

The Town Core and Bush River
The Main Street has a strong sense of place, largely due to the planned appearance of the street around the clocktower, and also because of its views to the surrounding landscape, including the meadows of the Bush Valley and the parkland on the eastern side of the valley. The principal view of the town in its landscape setting is looking eastwards from the northern bridge, where the clock tower can be seen with a backdrop of parkland. There is also an attractive and distinctive view northwards from the northern bridge, along the Bush River towards the coast. Despite the attractive setting of this part of the town, the number of empty and/or poorly maintained buildings give it a slightly run down character. This part of the town is the gateway when approaching Bushmills along the A2 from the Giants Causeway.

New Residential Estates
The new residential estates have a very different character. Although the most recently built reflect local vernacular features such as sash windows, 1½ storeys height etc., many of the housing areas lack local distinctiveness and a sense of place. The red roofs of some residential estates are particularly out of keeping with the local vernacular, and are visually intrusive when viewed from the surrounding landscape.
The Distillery
The distillery area of the town dominates views of Bushmills with its large warehouses and
distillery buildings. The Distillery is related in both landscape and functional terms with the small
valley of the small stream immediately to the south. This stream (a tributary of the Bush River)
provides the water supply for the distillery, keeping the connection between the town and the
river alive.

The Schools
The north western part of the town is dominated by several school buildings, dating from the
1920s to the present day. The newer buildings are relatively large, and are visible in distant
views of the town from the Causeway Hotel, although they do not dominate these views. This
area also contains playing fields, parking areas, and other land uses traditionally associated with
schools. This part of the town forms the gateway to Bushmills when approaching along the A2
from the west.

North Eastern Estates
To the north east of the settlement core is an area of mid 20th century housing. These estates
are mostly terraced and are therefore much denser than newer areas of housing to the south of
the town. From within the north east estates there is a strong visual relationship with the
parkland landscape outside the town, and also with the distillery.

Landscape Setting and Function

Bushmills is situated in the Bush Valley landscape character area which is typified by its
enclosed views, lush farmland and parkland. The parkland is particularly distinctive because of
its high proportion of deciduous woodland. The farmland is also distinctive within the Causeway
Coast AONB because of its combination of arable and pastoral farming, and watermeadows.
This landscape provides the backdrop and foreground for views of the town, i.e. its "setting".
Some areas have a greater setting function than others.

Areas of distinctive character:
Historic Parkland
The parkland of the Dundarave estate covers the eastern side of the Bush valley, from the top of
the slope to the edge of the town. It includes extensive blocks of deciduous woodland, scattered
mature deciduous trees and copse, areas of pasture, and formal gardens around the house.

Bush River meadows
The valley floor contains the Bush River, which meanders in a relatively wide channel. Within the
river floodplain are meadows divided by hedgerows. These meadows have open views towards
the coast, and are an important "buffer zone" between Bushmills and Portballintrae. Most remain
in agricultural use (both arable and pastoral) whilst some towards Portballintrae have been made
into golf courses. The sense of place of these meadows is largely achieved through the
presence of the adjacent parkland, the open views to Bushfoot sand dunes, and views to the
towns of Bushmills and Portballintrae. The Bushmills railway is also visible from the meadows.

Valley of Bush River Tributary
This area of land is located to the south east of Bushmills, and is visually and functionally related
to the distillery. It contains a small stream, a pond and fields, and is overlooked on the western
side by modern houses.
Views, Approaches and Gateways

People's perception of a settlement is strongly influenced by the views their views to it, and by the sequence of their approach to the settlement. Key points in the approach are the first view of the settlement (this may be distant), the settlement gateway (i.e. the point at which a person feels that they have arrived at the edge of the settlement), and entering the distinctive core of the settlement.

Bushmills is approached by roads from most directions. However, because of the landform of the area, it is most clearly visible in approaches from the north and south (from Portballintrae and Coleraine respectively).

Approaches from the north (A2 from the Giant's Causeway)
There are some limited and distant views of the town (with the western side of the valley as its backdrop) from the Causeway Hotel, but these are largely blocked by woodland on the eastern side of the valley. This woodland significantly screens the town when approaching from the north on the A2, and also creates a distinctive and attractive approach to the town. In this approach, the gateway leads immediately into the historic core of the town. This gives a strong sense of arrival at Bushmills.

B145 from Portballintrae
The approach to the town on the B145 from Portballintrae is open, and there is only a short gap between the settlements of Portballintrae and Bushmills. On this approach, the fields of the Bush valley form the foreground to views of Bushmills, with a somewhat ragged edge of unscreened new development behind. The roofs of the distillery sheds are also visible. The tramway station does not from a strong or memorable feature in this approach, but the church tower is a distinctive landmark. The gateway on this approach is close to the tramway station. Once past the gateway (i.e. within the town) the distinctive features of the historic town can be seen. The approach to them through 20th century development is relatively short, so the town feels compact.

A2 from Portrush
When approaching eastwards on the A2, Bushmills is seen in the development context of Portballintrae. In this elevated view, the gap between the two settlements is particularly important. Distant views of Bushmills are dominated by the distillery sheds, and the town is seen against the backdrop of parkland on the eastern side of the Bush valley. On this approach, the clock tower in the centre of the town is visible from the town gateway, which reduces the distance from the gateway to the historic core of the town.

Craigaboney Road from Ballyclough
When observing the town from the elevated viewpoint of Ballyclough road (to the west of Bushmills), much of the town is hidden by a small ridge on the west bank of the river, and by mature vegetation in the Glebe area. However, the new development to the south and the distillery sheds which are situated on higher ground are clearly visible. The white painted Presbyterian church is a distinctive landmark in this view. The town is approached along a narrow lane known as Craigaboney Road. Banks and hedges largely screen views of the town until the lane joins the Coleraine road. By this point, the approach is already within the historic core of the town.

B17 from Coleraine
On this distant approach the settlement appears nucleated. There are clear views of the new development on higher land to the south of the town. The white of the new houses and their red tiled roofs mean that they are visually significant. The distillery sheds are also visible,
particularly the roofs, as they reflect sunlight. Once inside the town gateway, the nucleated appearance of the settlement becomes less apparent, as pockets of new development occur along the right hand side of the road. On the left is the wooded land of the Glebe, which forms part of the historic core of the town, and forms a distinctive approach to the town centre.

**B66 from the South**

When approaching from the south on the Castlecat Road, distant views of the town are hidden by trees and undulating landform. The first view of the town (dominated by the abrupt edge of new development) is observed soon before passing through the town gateway. Once within the town gateway, there is approx. 1/2 mile of modern development before the distillery and historic core are reached. This gives the impression of a town which has lost its traditional nucleated form, and instead has started to develop sprawling suburbs.

**B17 from the east**

Landform and vegetation hide distant views of the town in the approach from the east on the Ballycastle Road. However, pockets of development along this road, such as a garage, stand out very clearly in the landscape. Views of Bushmills are not seen until close to the edge of the town, when they are dominated by the distillery, and therefore very distinctive. A small ridgeline and vegetation on the Glebe land forms the backdrop to views of the town. The town gateway is dominated by the distillery, and by modern housing on the eastern side of the B66. Once the B17 has joined the B66, it is only a very short distance to the historic core of the town.

**Tourism**

The principal tourist attraction in Bushmills is the distillery. The heritage railway between Bushmills and Giants Causeway has recently opened (2001) and is proving to be a key attraction. The town contains local facilities, including cafes, restaurants, a youth hostel and a post office.

**Looking Forward**

It is essential that any future development and environmental improvements in Bushmills are sympathetic to the objectives of the Management Plan, the special qualities of the settlement as identified in the settlement analysis and are of a standard that reflects the town’s role as the key settlement within the nationally important AONB.

In order for Bushmills to develop and flourish in a coherent way, offering a high quality visitor experience, it is essential that a design and development framework plan be prepared (perhaps as part of the emerging Northern Area Plan) to guide the future development of the town.

**Mitigation of existing buildings to reduce visual impact**

Some existing buildings within Bushmills have a particularly high visual impact, which could potentially be reduced. For example, painting/treating the roofs of the distillery warehouses to give a matt finish would reduce their reflectivity, and therefore reduce their eye-catching shiny appearance in the sun. Another building which dominates views of the town is the large white garage on the B17 on the east side of the town. The visual impact of this building could be reduced by painting the building a darker colour and/or screening it with trees.

The edges of new development are often relatively harsh. It would be possible to soften these edges through the planting of trees and hedges.
Location and type of new development

The location of any new development is extremely important in Bushmills. The town already contains examples of poorly-sited development which has started to undermine the historic form of the town, and which has begun to make the town far more visible within the wider landscape. Development should therefore be avoided on higher ground (i.e. on the east and south east edges of the town, and in the Glebe area). It should also be avoided where it would have a detrimental affect on the town gateways, on views to the town along approaches, and where it would contribute to a sense of "sprawl" of the town along roads and away from the historic core. Land which contributes to the setting of the town, or forms the gap between Bushmills and Portballintrae should also be protected.

A site which may potentially be considered for development is the derelict land to the east of the main street, behind existing buildings. This area is not visible from the surrounding landscape, does not have a function in the setting of the town, is convenient for services in the Main Street, and fits with the historic form of the town.

However, the priority for new development should be the renovation and re-use of existing buildings within the historic core of the town. Several buildings are currently derelict, and their redevelopment would improve the atmosphere and appearance of the town centre, as well as providing new accommodation for a variety of purposes.

As well as location, type, size and design of buildings are also important considerations. For example, building heights should be restricted in order to minimise their impacts in views from the surrounding area. The screening of developments from key viewpoints should also be considered. Design guidance already exists for the Bushmills Conservation Area, and this should be extended to cover new developments and building modifications throughout the town.

Increasing the visual appeal of the town

Improving the appeal of the town for tourists, increasing the range of tourist services, and making the town look more attractive would enable the town to attract more passing trade. Potential schemes for improving the appearance of the historic core include imposing conditions on planning permissions to restore derelict buildings, and charging rent on empty properties.

New footpath connections

There is potential to create more connections and attractions within the town. For example, a footpath alongside the Bush River between the Heritage Railway station and the Distillery. The route could incorporate the Millennium Park and the Salmon Fishery (which has the potential to be a tourist attraction).
PORTBALLINTRAЕ

Location

Portballintraе is a fishing hamlet-turned tourist resort located around the bay of Portballintraе, close to the mouth of the Bush River and Bushfoot Strand Beach. The settlement is located entirely within the AONB, and is also within the visual envelope of the Giant's Causeway World Heritage Site.

Key Settlement Characteristics

The key elements identified during this assessment included:

- Portballintraе is the second largest settlement within the AONB.
- Originally a fishing hamlet it has grown into a village popular with holiday makers and second home owners.
- Lack of local facilities (1 cafe, hotel and pub).
- Considerable recent growth of settlement inland to the south and east.
- Retention of historic urban form around the bay.
- Key visitor attractions include the fishing quay and Bushfoot Strand to the northeast.
- Causeway Coast Way (long distance footpath) passes through the village.
- Landscape setting defined by parkland and sand dunes to the northeast and wet pasture and rising ridge of basalt to the southwest.
- Key landmarks include Seaport Lodge, the bay, the quay and Lissanduff earthworks.
- The visibility of this settlement from the surrounding landscape and particularly the Giant's Causeway is significant.
- The limited extent of 'countryside' and the lack of separation between Portballintraе and Bushmills.

Settlement Form

Portballintraе is an ancient settlement. The Earthworks at Lissanduff are of prehistoric origin, and until recently contained a spring-fed pool. The settlement was therefore originally established at the meeting of three types of water- spring water, fresh water and salt water, and the Bush River is named after a water goddess. This suggests that there is a very ancient ritual landscape associated with the settlement.

Subsequently, Portballintraе developed as a small fishing port. It comprised a scattering of cottages around the bay, with a small quay on the eastern side. In the 19th century, this fishing hamlet began to develop into a tourist resort, as hotels and guest houses developed between the river and the bay.

A street developed, following the semi-circular form of the bay. This street is connected to the wider road network by the B145, which links Portballintraе with the A2 to the west, and Bushmills to the south.

The majority of 19th and 20th century development has respected the traditional form of the settlement, as dictated by the shape of the bay. Development has expanded inland from the bay whilst maintaining a semi-circular form. An exception is the linear development along Ballaghmore Road (the B145 towards Bushmills), which has not respected the historic form of the settlement, and has undermined the gap between Portballintraе and Bushmills. Seaport Lodge, a regency house originally built and occupied by the owner of the mills in Bushmills, was constructed on the western headland, overlooking the bay. It remains an important local landmark, because of its unspoilt setting and slight detachment from the rest of the village.
The recent development to the south of the Lissanduff earthworks is on higher land, and is prominent in views from the Giants Causeway. In this elevated view, the recent development appears separated from the rest of settlement by the earthworks.

Settlement Character and Sense of Place

Old cottages, terraces and Victorian guesthouses give the settlement a traditional seaside character. This has been modified by new hotels and apartment blocks (some of which are insensitive in design), and also by extensive areas of second home housing estates. New buildings vary in design quality; some are sensitive to the setting and traditional vernacular styles of the area, others are not. The very high proportion of second homes in Portballintrae (60%+), gives the village a suburban, transient and sometimes soulless character. This is emphasised by the lack of services – there is no school or permanent shop in the village, and employment is largely limited to fishing and tourism. A further influence on the character of the village is its focus on leisure and recreation. It contains hotels, golf course, tennis courts, a caravan park and pub.

Within the village there are three areas of distinctive character: the seafront, the southern residential estates and the Bushfoot area.

Seafront

The seafront area of the village is the most distinctive part of Portballintrae. It is focussed around the bay of Port Ballintrae, which dominates views. It is further emphasised by the simple street pattern, which follows the curve of the bay. This area contains a number of old properties, including fishermen’s cottages and Seaport Lodge. It has also been in filled with Victorian and more modern houses, hotels and apartment blocks.

Southern estates

The southern part of Portballintrae consists almost entirely of modern housing and a camp site. The housing is generally less distinctive than that within the Seafront area, and parts (particularly along Ballaghmore Road) have a linear, suburban character. The urban edge is relatively hard, with little vegetation to soften it or provide screening. Street vegetation is also limited. The form of the village is less clearly defined than the naturally-influenced form of the Seafront area, and is largely comprised of cul-de-sac estates containing large numbers of second homes, but few services. Views from this part of the village are orientated to the south west, away from the coast and towards the farmland on the western side of the Bush Valley.

Bushfoot

Housing on the eastern side of Portballintrae has developed in a piecemeal manner, and includes mid 20th century and more recent housing. Earlier housing is in a rectilinear layout, whilst more recent housing is cul-de-sac in form. The most modern housing is strongly influenced by Mediterranean styles, with balconies and large glass windows. This housing fits uncomfortably with the local vernacular. As it has been built on a ridge of higher land, it is prominent in the landscape, particularly when viewed from the Causeway Hotel. This area of Portballintrae is associated with its landscape setting and much of the area has views to Runkerry Point and the Causeway cliffs.

Landscape Setting

Portballintrae is situated at the coast within the Bush Valley landscape character area. The village has a complex setting, including sea, sand dunes, headlands, farmland, woodland and golf course. Its location in relation to surrounding roads means that the village is visible from 180°. It is also visible from the Giant’s Causeway hotel and the cliff tops above the Giant’s
Causeway.

Portballintrae has a strong sense of place, which stems from its distinctive setting, particularly the combinations of the bay, beaches and headlands, and the more distant views to the cliffs of the Giant's Causeway and to the watermeadows of the Bush valley.

Areas of Distinctive Character:

Bushfoot
The Bushfoot area, to the east of the village, contains a number of land uses, including sand dunes, parkland, farmland and golf course. A further distinguishing feature is the line of the Bushmills Railway. Views are generally expansive, and the tops of the causeway cliffs are clearly visible in the distance, giving sense of place and orientation.

Bush Valley farmland
This area is located to the south and west of Portballintrae, and is typical of the Bush Valley landscape character area. The lower slopes of the valley appear strongly pastoral, with relatively small fields divided by hedges. The soils here are less free draining, resulting in some areas of wet pasture with clumps of rushes and other wetland plants growing in the grass. This gives a more distinctive and textured appearance.

Views, Approaches and Gateways

There are two approach roads into this settlement: an elevated approach from the west and a lower approach from the south. There are also elevated views of the village from the Causeway Hotel and the A2.

View from the Causeway Hotel
The most significant view of Portballintrae is seen from the Giant's Causeway hotel. In this view, the village is seen with the backdrop of Bush Valley pastoral farmland, with the higher craggy outcrops of the Skerries Coast landscape character area on the ridgeline above. Seaport Lodge is an important and very visible landmark, and its open grassland setting makes it particularly visible. The coastline (particularly rocky headlands) is also important in this view. On the southern side of the village, new houses adjacent to the golf course are very prominent as they have been built on higher ground, but appear separated from the rest of the settlement by the grassy hummocks of the earthworks.

View from the A2
In the elevated view northwards from the A2, Portballintrae is seen with pastoral fields in the foreground (giving a strong Bush Valley context). The backdrop to the village is a complicated but very strong setting including sea, dunes, parkland and farmland, plus the landform of the Bush Valley. In this view, the settlement is seen in relation to the coast and the bay – it is clear to see where the traditional form has been lost through ribbon development along Ballaghmore Road.

Bayhead road from Portrush
When arriving from the west via Bayhead Road, the settlement of Portballintrae appears quite suddenly, with a backdrop of open rolling farmland, parkland and dunes. The Causeway Hotel and Giants Causeway headland are visible in the distance above the village. The gateway to Portballintrae on this approach is where new housing starts on the right hand side of the road. Once through the gateway, open fields on the left enable elevated views across the village and bay towards the Giant's Causeway. This provides a very strong orientation and sense of place. Moving down the hill, buildings form the skyline on both sides, and views to the sea are
therefore blocked. The steepness of the hill, the distinctive views, and the short distance between the gateway and the historic core make this a memorable approach to the village.

**Ballaghmore Road from Bushmills**
The arrival in Portballintrae from Bushmills has a very suburban feel. The village gateway is passed at the start of linear development on the right, with views across the Bush Valley and hillside to the left. Residential development then occurs on both sites of the road, and a caravan park is visible on the left, before the sea is visible ahead. The houses which line this approach are not distinctive in their design, and there is a relatively long distance between the village gateway and the historic core of the village, which reduce the identity of Portballintrae on this approach.

**The Causeway Coast Way (footpath)**
The Causeway Coast Way runs through Portballintrae. Approaching from the west, the initial view of the village is the same elevated view seen from the A2. There is then a steep decent down the hillside before the path enters a modern residential housing estate. This estate is very hard in appearance, with little vegetation in the form of trees or planting in front gardens. Within the estate, views out are restricted, so there is little sense of place. There is a relatively long walk through residential estates before the historic core of the village is reached, with its older buildings, views of the sea and views of the Giant's Causeway headland.

From the east, the Causeway Coast Way approaches Portballintrae across sand dunes. Views of the village are largely blocked by a low ridge of land on the eastern side of the village. Once the Bush River has been crossed, views of the village are dominated by the grassy mounds of the Lissanduff earthworks, which create a strong sense of time-depth. The path then crosses a car park, before entering the seafront, with a row of 19th century boarding houses on the inland side. The path then follows the seafront past the fishing quay into the centre of the village. There are attractive views across the bay to Seaport lodge. This approach is both distinctive and historic: It has not been significantly affected by modern development.

**The Heritage Railway**
The Giant's Causeway and Bushmills Railway line and footpath run close to Portballintrae, but the village is largely hidden by rising land. Views from the top end of the railway line are similar to those from the Giant's Causeway hotel.

**Tourism**
Portballintrae caters for tourists principally through the provision of accommodation: guest houses, hotels, apartments, holiday cottages and caravans. It also has a pub and a seasonal shop, tennis courts and a golf course. The car park and public toilets at Lissanduff have recently been renovated.

**Looking Forward**

**Location and design of any future development**
Portballintrae is very sensitive in terms of new development, as the settlement is right on the coast, and visible from the Giant's Causeway World Heritage Site. It is important that peripheral development is controlled, to respect the historic form of the village. Linear development should be avoided. Sprawl of the village should be minimised, in order to maintain the Bush Valley context of the village, and the gap between Portballintrae and Bushmills. The intimate feel of the historic core of the village should be considered in the design of new development. For example, new properties should not be out of scale with the traditional buildings, and should contribute to local distinctiveness.
Environmental/landscape improvements to the existing village
Where harsh village edges are visible from the wider landscape (e.g. properties backing onto
the putting green), mitigation planting should be considered. There is also potential for
environmental improvements to the bay and the car parking area. Lightspill from the village
affecting views from the Giant's Causeway is also an issue, which should be addressed in an
assessment of the village's street lighting.

Development of Portballintrae as an attraction in its own right
The development of Portballintrae as an attraction and settlement in its own right is important
to the future of the village. This could be achieved through the establishment of new services
in the village which compliment those available in Bushmills. In addition, the village should be
promoted as a tourist attraction in its own right rather than simply being a "dormitory" providing
accommodation. A key factor in encouraging tourists to spend time in the village is its coastal
location (it is the largest coastal settlement within the AONB). There are opportunities for
interpretation of the villages fishing industry, possibly including boat trips.
BALLINTOY

Location

Ballintoy is located in the centre of the Causeway Coast AONB, in the Magpie Coast landscape character area, approximately midway between Bushmills and Ballycastle.

Key Settlement Characteristics

- A village which has developed in three distinct and separate parts.
- Situated within the distinctive stepped profile of the Magpie Coast landscape character area.
- Strongly influenced by the junction of chalk and basalt geology.
- Strong visual association with landmarks of Sheep Island, Ballintoy church and strip fields.
- A local service centre for residents and visitors.
- Tourist attractions within the vicinity of the village: Carrick-a-Rede, Ballintoy harbour and White Park Bay

Settlement Form

Ballintoy has an unusual settlement form, consisting of three components: a linear village, and two outlying settlements. The former appears to be a planned village. It is linear in form, with houses one plot deep on either side of the main road (B15) and is situated at the base of an inland cliff. It is associated with strip fields which run perpendicular to the main road and the coast. The oldest part of the linear settlement is towards the eastern end, with more recent development at the western end. There are currently no houses on the northern side of the road at the newer end of the village, and on the southern side of the road is a small housing development. The linear village contains several services for both tourists and residents, including a shop/ post office, youth hostel, three pubs, a gift/ craft shop, bus stop, school, chapel and gospel hall.

Outlying parts of the village are the church and adjacent cluster of cottages known as “the castle”, which are situated on the coastal plateau, and the cottages at the harbour and coastguard cottages situated on the coast.

Settlement Character and Sense of Place

The unique locations, forms, functions and histories of the three parts of Ballintoy have led to areas with strongly differing characters:

The linear village

The linear part of Ballintoy has the most built-up and enclosed character, but glimpses of the village’s setting and surrounding landmarks (including the church, chalk plateau, strip fields, Sheep Island and the Basalt ridge) can be seen between the buildings. This distinctive setting of the village (described in more detail below) gives it a strong sense of place. The buildings and services (e.g. Youth Hostel, Post Office, Pubs) also give the village a “working” character.

“The Castle”

This outlying part of the village is strongly associated with the church. It has an open character, and is strongly associated with its landscape setting of strip fields on the coastal plateau. It has a strongly rural feel, and contains a cluster of farms and farm buildings of a variety of ages, including some new properties.
The harbour and Coastguard Cottages
Ballintoy harbour developed as a fishing port, and was later used by ships exporting stone from nearby quarries. Around the harbour there are a couple of cottages, a café, boat houses and sheds. The harbour has a strongly defined “black and white” character, expressed through the contrasting limestone and basalt rocks in the cliffs, islands and beach, as well as in designed features such as paving, gravel and buildings. It is closely associated with the surrounding cliff and foreshore landscape, and also with the sea. The harbour and its buildings have been carefully restored, although some of the street furniture (lighting columns etc.) is very municipal in appearance. Restored lime kilns are reminders of past industry. The harbour is accessed via a narrow, steep lane with several hairpin bends, and consequently feels physically and visually isolated from the rest of the settlement. Although the coastguard cottages are on the cliff top, the gentle slope of the coastal plateau means that they also seem isolated from the linear part of the village.

Landscape Setting

Within the area around Ballintoy, there is great variation in the landscape, which influences the sense of place of the various parts of the village.

Coastal Plateau and Basalt Ridge
The Magpie Coast landscape character area has a distinctive stepped profile, comprising basalt islands and rock formations at the shoreline, sandy beaches, chalk cliffs, a broad chalk plateau at the cliff tops, then inland cliffs of basalt. The different sections of the profile combine to create the very distinctive setting of Ballintoy. The open character of the cliff top plateau, containing strip fields divided by post and wire fences, and the white-painted tower Ballintoy church, contrasts sharply with the rough scrub and crags on the steep basalt slope inland. The linear part of the village is centred along the B15, which runs along the base of the basalt cliffs, and it is the contrast between the chalk and basalt areas which gives the linear village of Ballintoy such a strong sense of place.

The cliffs and foreshore
The setting of the harbour and coastguard cottages is dominated by the white chalk cliffs and black basalt islands of the coast. The contrasting black and white rocks have given the area the nickname of the “magpie coast”, the name adopted for the landscape character area. There are small beaches between the cliffs and the islands, some sandy, others pebbly. Pebble beaches are distinctive for their mixture of black and white stones. The unusual conical shapes of the islands and stacks are highly distinctive, and create a dramatic, almost incongruous character to the landscape. The sea is fundamental to the mood of the landscape- it can be a calm backdrop or a crashing, dominant force.

Other landmarks
Sheep Island is a distinctive landmark dominating the seascape, and is the only landmark to be visible from all areas of the village. It forms the backdrop to the church and “The Castle” in views north from the A2. There are also distant views to Rathlin Island and Benbane Head.

Views, Approaches and Gateways

There are three main approached to Ballintoy: The elevated view from the B15 approaching from the east; the level view approaching from the west on the B15, and the views across the coastal plateau from the harbour and the Carrick-a-Rede carpark. The most memorable and well-known landmark of Ballintoy is the white-painted church on the coastal plateau. Surrounded by strip fields, it is visible from a greater distance than the linear village.
Elevated view from B15 from the west
The approach from the east on the B15 is elevated, and a layby has been provided so the memorable and panoramic elevated view of the village and its setting can be appreciated. The initial view is of the church and fields (although from this direction the backdrop is the Causeway Plateau coastline) before the village comes into view. The approach into the village from the east is dramatic and memorable. The village disappears from view as the road descends down hairpin bends. The lowest hairpin has a large modern house on the corner, then there is one further bend before crossing a bridge into the oldest part of the linear village.

B15 from the east
When approaching from the west, the church is first viewed from the junction between the A2 and the B15. The cluster of houses and farms known as "The Castle" come into view, then the strip fields on the chalk plateau, then the linear part of the village. The sea and Sheep Island form the backdrop. There is a relatively short approach before entering the village at the newer end. On emerging from the village at its western end, a steep slope is visible ahead which leads up to the elevated plateau of the Kinbane Coast landscape character area.

Views south from Harbour Road and Carrick-a-Rede access.
Ballintoy church, "The Castle", and linear village can also be seen in their landscape context of chalk plateau and contrasting basalt ridge in views from the Carrick-a-Rede carpark access and when approaching from the harbour.

Approaching the harbour along Harbour Road
The approach to the harbour is dramatic, down a series of narrow hairpin bends. The harbour is not visible until the final bend, when it appears with Benbane Head as a backdrop.

Tourism
Ballintoy is close to a number of tourist attractions, including the harbour, Carrick-a-Rede rope bridge and Whitepark Bay. It also provides a range of services for tourists, including a Youth Hostel, grocery shop, craft shop, post office, pubs and bus stop. At the harbour there is a car park and public toilets, and a recently established café and gift shop. The National Trust provides similar facilities at Carrick-a-Rede.

Looking Forward: A Strategy for Future Development

Protecting the setting of the village
Protecting the setting of Ballintoy and its landmarks is fundamental to maintaining the special qualities of the settlement in the future. Particular value should be placed on the church, strip fields, harbour, Sheep Island, and the contrasting characters of the farmed and rough land.

Location and design of new development
The sense of arrival should be retained in the linear part of the village by discouraging dispersed settlement on the outskirts. However, there is limited potential to extend the village at the western end, along the northern side of the B15, providing that any new development has a maximum of two storeys, is only one plot deep, and is sensitive in design. No cul-de-sac development should be permitted, as it would not be in keeping with the traditional form of the village, and would be highly intrusive in the landscape.

No development should be permitted in outlying parts of the village, as they will undermine the settings to landmarks, and will also reduce the openness of the coastal plateau. There is no precedent of development on the higher land to the south of the village, and this should not be permitted.
Traffic management
A development strategy for Ballintoy must also consider the mechanisms for managing tourism within the village. Traffic is a key issue on the narrow, steep road to the harbour. Although a car park has been constructed at the harbour, it may be preferable to provide a minibus service from the village. It would also be helpful to provide a footpath alongside harbour road where practical, so pedestrians are not forced to walk on the road at its narrowest points.

Tourism, connections and transport
Ballintoy is an important provider of services in the central part of the Causeway Coast AONB. It contains a hostel, post office, gift shop, pubs and bus stop. In the vicinity are the tourist attractions of Carrick-A-Rede and Ballintoy Port. The coastal footpath network around Ballintoy is good, and joins the harbour with Carrick-A-Rede. However, there is scope to improve public transport links around the village, possibly through a minibus route. It is also important the attractions and facilities in Ballintoy are connected to the wider AONB, in terms of transport, advertising and interpretation.
Appendix 5
Tourism Context
Tourism Context: Tourist Accommodation in and around the AONB – Supply and Demand

Supply of tourist accommodation

In terms of the distribution of registered tourist accommodation in and around the Causeway Coast, the bulk lies within Coleraine Borough in the west (Figure 1). Indeed, Coleraine has almost two-thirds of the registered tourist accommodation units and more than 70% of tourist bed spaces available along this stretch of the Antrim coast and its hinterland.

![Figure 1a: Tourist Accommodation Availability in Coleraine and Moyle - Units registered with NITB](image)

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<td>32</td>
<td>100%</td>
<td>194 100%</td>
<td>426   100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14       100%</td>
<td>684   100%</td>
</tr>
</tbody>
</table>

Source: NITB

![Figure 1b: Tourist Accommodation Availability in Coleraine and Moyle - Bed spaces registered with NITB](image)

<table>
<thead>
<tr>
<th></th>
<th>Hotels</th>
<th>Guest Houses</th>
<th>B&amp;B</th>
<th>Self-Catering</th>
<th>Youth Hostels</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beds</td>
<td>%</td>
<td>Beds</td>
<td>%</td>
<td>Beds</td>
<td>%</td>
<td>Beds</td>
</tr>
<tr>
<td>Coleraine BC</td>
<td>1214</td>
<td>85%</td>
<td>675</td>
<td>79%</td>
<td>1704 75%</td>
<td>1362  63%</td>
</tr>
<tr>
<td>Moyle BC</td>
<td>211</td>
<td>15%</td>
<td>178</td>
<td>21%</td>
<td>557 25%</td>
<td>801   37%</td>
</tr>
<tr>
<td>Total</td>
<td>1425</td>
<td>100%</td>
<td>853</td>
<td>100%</td>
<td>2261 100%</td>
<td>2163  100%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>534 100%</td>
<td>7,236 100%</td>
</tr>
</tbody>
</table>

Source: NITB

Hotel accommodation in particular is focused on Coleraine, especially on the holiday towns of Portrush and Portstewart. Portrush is important as a potential source of visitors to the Causeway Coast AONB, with the East Strand marking the westernmost extremity of the AONB. At least two hotels in Portrush are sufficiently large to be able to accommodate coach tours with at least another three hotels capable of accommodating coach passengers with some sharing rooms. Coleraine BC area also dominates the Guest House sector, both in terms of units and bedsplaces.

The two hotels within easy walking distance of the Giants Causeway itself (the Causeway Hotel and the Bushmills Inn) have a combined total of 60 rooms (all en-suite) and 145 bedsplaces (indicating that some are family rooms).

The two local authority areas between them have a total of 426 registered self-catering accommodation units, or 38% of all such units available in Northern Ireland. Indeed, Coleraine has more units registered with NITB than any other local authority area, even the popular tourist destination of Fermanagh.

Although the two local authority areas have 14 YHA youth hostels between them, only two, White Park Bay, and the newly opened Bushmills Hostel, are actually located within the AONB. There is also a privately owned hostel in Ballintoy.
Demand for tourist accommodation

Room, bed or self-catering unit occupancy data is not available at either the AONB or District Council level. The lowest spatial level of data available from NITB covers the North East of the Province, which includes all of Antrim plus Port Stewart, but excluding all areas within 10 miles of Belfast. This level of disaggregation has been used wherever possible.

Figure 2: Annual Occupancy Rates for the North East region of Northern Ireland, 1995 - 2000

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel - NI</td>
<td>41</td>
<td>35</td>
<td>33</td>
<td>32</td>
<td>34</td>
<td>33</td>
</tr>
<tr>
<td>Hotels - North East</td>
<td>41</td>
<td>35</td>
<td>31</td>
<td>29</td>
<td>31</td>
<td>33</td>
</tr>
<tr>
<td>Guesthouse and B&amp;B - NI</td>
<td>20</td>
<td>20</td>
<td>24</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guesthouses and B+Bs - North East</td>
<td>21</td>
<td>20</td>
<td>22</td>
<td>22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guesthouse - NI</td>
<td></td>
<td></td>
<td>27</td>
<td>27</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guesthouse - North East</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27</td>
<td>29</td>
</tr>
<tr>
<td>Bed and Breakfast - NI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Bed and Breakfast - North East</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Self Catering - NI</td>
<td>50</td>
<td>47</td>
<td>42</td>
<td>40</td>
<td>38</td>
<td></td>
</tr>
<tr>
<td>Self Catering Units - North East</td>
<td>57</td>
<td>48</td>
<td>46</td>
<td>43</td>
<td>39</td>
<td></td>
</tr>
</tbody>
</table>

Worryingly, given the relatively high number of self-catering properties within the AONB, annual occupancy rates in this sector have fallen consistently across the region for the last few years. In part this is believed to be due to the considerable increase in supply of units, fuelled by conversion and redevelopment work in many farm steadings, and because of the intervention of NITB and funding agencies who have supported this approach to farm diversification. Tourists staying in self-catering units tend to stay longer in an area than do hotel, guest house and B&B guests and are more likely to visit a number of local destinations or attractions during their holiday, than are people staying for shorter periods in hotels and B&Bs. Thus if this self-catering market is declining, the potential for increasing visitor activity at the second tier of attractions also declines, since most tourists will concentrate only on the "must-see" attractions.

Figure 3: Monthly Occupancy Rates for Northern Ireland, 2000

<table>
<thead>
<tr>
<th></th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>Aug</th>
<th>Sept</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel</td>
<td>24</td>
<td>28</td>
<td>29</td>
<td>38</td>
<td>38</td>
<td>39</td>
<td>36</td>
<td>40</td>
<td>37</td>
<td>32</td>
<td>28</td>
<td>26</td>
</tr>
<tr>
<td>Guesthouse</td>
<td>14</td>
<td>22</td>
<td>18</td>
<td>28</td>
<td>30</td>
<td>34</td>
<td>34</td>
<td>42</td>
<td>32</td>
<td>32</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td>Bed and Breakfast</td>
<td>7</td>
<td>9</td>
<td>9</td>
<td>17</td>
<td>23</td>
<td>23</td>
<td>29</td>
<td>32</td>
<td>22</td>
<td>15</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Self Catering (1999)</td>
<td>21</td>
<td>27</td>
<td>34</td>
<td>56</td>
<td>65</td>
<td>65</td>
<td>56</td>
<td>65</td>
<td>65</td>
<td>65</td>
<td>65</td>
<td>65</td>
</tr>
</tbody>
</table>

All sectors see a rise in demand during the summer months, although unsurprisingly, the most stable sector is the hotel sector, which experiences the least variation in demand over the year. Self-catering properties have a much shorter season, from April to September only, but during the peak month of August enjoy unit occupancy rates of 60%+. Bed & Breakfast operations and Guest Houses are also very seasonal with considerable spare capacity at all times of the year.
Figure 4: Weekday and Weekend Occupancy Rates, 2000

<table>
<thead>
<tr>
<th></th>
<th>Weekend</th>
<th>Weekday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel bed occupancy</td>
<td>35%</td>
<td>31%</td>
</tr>
<tr>
<td>NITB annual average</td>
<td>38%</td>
<td>30%</td>
</tr>
<tr>
<td>North East annual average</td>
<td>29%</td>
<td>25%</td>
</tr>
<tr>
<td>Guesthouse bed occupancy</td>
<td>35%</td>
<td>24%</td>
</tr>
<tr>
<td>NITB annual average</td>
<td>20%</td>
<td>17%</td>
</tr>
<tr>
<td>North East annual average</td>
<td>22%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Source: NITB

Broadly speaking, bed occupancy rates at the regional (i.e. North East) level are higher than for the whole of Northern Ireland, except for weekday rates for hotels and guesthouses, which show a slightly lower level of take-up. These figures go some way towards confirming the presence of a short-holiday break market along the North East coast and its hinterland, and also confirm the importance to the tourism economy of small accommodation businesses such as guest houses and B&Bs.

Distribution of Tourism Sites across the AONB

There are a number of key honeypot sites within the AONB, notably the Giant's Causeway itself, the town of Bushmills (including the Distillery) and the East Strand on the outskirts of Portrush (the westernmost extremity of the AONB). Other key locations include Larry Bane/ Carrick-a-Rede; Port Ballintoy, White Park Bay and White Rocks.

All of these locations have enjoyed considerable investment in the infrastructure necessary to cope with large numbers of people, including car parking and toilet provision. All bar White Rocks also have on-site catering provision, at least in the peak season.

Secondary locations include:
- Bushfoot Strand, Portballintrae
- Dunluce Castle
- Dunseverick Castle
- Kinbane Castle
- Portbradden

In addition to the above, there are a number of other smaller locations within or in close proximity to the AONB that attract visitors or have the potential to do so. These include archaeological remains, garden centres (particularly on the western outskirts of Bushmills), antique shops on the outskirts of Portrush and fishing beats on the River Bush. Figure 5 summarises the visitor facilities available at the main sites of interest within the AONB.
<table>
<thead>
<tr>
<th>Location</th>
<th>Parking spaces</th>
<th>Information panels</th>
<th>Picnic tables</th>
<th>Public toilets</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portrush East Strand Car Park</td>
<td>650</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White Rocks</td>
<td>145</td>
<td>1</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magheracross</td>
<td>72</td>
<td>3</td>
<td>3</td>
<td>Yes</td>
<td>Information centre</td>
</tr>
<tr>
<td>Dunluce Castle</td>
<td>20</td>
<td>6</td>
<td></td>
<td>Yes</td>
<td>Information centre</td>
</tr>
<tr>
<td>Portballintrae</td>
<td>120</td>
<td>1</td>
<td>1</td>
<td>Yes</td>
<td>Recycling point</td>
</tr>
<tr>
<td>Bushmills Distillery</td>
<td>n/a</td>
<td></td>
<td></td>
<td>Yes</td>
<td>Tours</td>
</tr>
<tr>
<td>Bushmills Railway, Bushmills terminus</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bushmills Railway, Causeway terminus</td>
<td>55</td>
<td></td>
<td></td>
<td></td>
<td>Visitor centre, TIC, café, hotel, small museum</td>
</tr>
<tr>
<td>Giant's Causeway</td>
<td>220 car spaces, 13 coach spaces</td>
<td>2</td>
<td>Yes</td>
<td>Visitor centre, TIC, café, hotel, small museum</td>
<td></td>
</tr>
<tr>
<td>Dunseverick Castle</td>
<td>40</td>
<td>1</td>
<td>2</td>
<td>Yes</td>
<td>Visitor centre, TIC, café, hotel, small museum</td>
</tr>
<tr>
<td>Dunseverick Harbour</td>
<td>40</td>
<td></td>
<td></td>
<td>Yes</td>
<td>Visitor centre, TIC, café, hotel, small museum</td>
</tr>
<tr>
<td>White Park Bay</td>
<td>25</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ballintoy Harbour</td>
<td>70</td>
<td>1</td>
<td></td>
<td>Yes</td>
<td>Coffee shop</td>
</tr>
<tr>
<td>Portbradden</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carrick-a-redes Rope Bridge</td>
<td>190</td>
<td>2</td>
<td></td>
<td>Yes</td>
<td>Coffee shop</td>
</tr>
<tr>
<td>Portaneeyey</td>
<td>50</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coolmaghra</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kinnabe Castle</td>
<td>30</td>
<td>1</td>
<td>2</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Ballycastle</td>
<td>n/a</td>
<td>1</td>
<td></td>
<td>Yes</td>
<td>TIC, museum</td>
</tr>
</tbody>
</table>

**Demand for Tourist Sites**

Usage figures are not available for many of the above sites because of the problems inherent in recording access to unrestricted countryside locations. An analysis of recent visitor flows to those sites for which data are available is presented below (Figure 6).

**Figure 6: Visits to key attractions in and adjacent to Causeway Coast AONB**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Giant's Causeway Visitor Centre</td>
<td>395,000</td>
<td>378,481</td>
<td>407,806</td>
<td>433,745</td>
<td>395,247</td>
<td>400,000</td>
</tr>
<tr>
<td>Carrick-a-Rede Rope Bridge</td>
<td>n/a</td>
<td>64,077</td>
<td>71,952</td>
<td>80,709</td>
<td>120,579</td>
<td>90,000</td>
</tr>
<tr>
<td>Old Bushmills Distillery</td>
<td>99,847</td>
<td>105,502</td>
<td>97,454</td>
<td>103,709</td>
<td>104,608</td>
<td>97,130</td>
</tr>
<tr>
<td>Portrush Countryside Centre</td>
<td>n/a</td>
<td>45,000</td>
<td>42,000</td>
<td>40,000</td>
<td>42,000</td>
<td>n/a</td>
</tr>
<tr>
<td>Dunluce Castle</td>
<td>34,821</td>
<td>36,292</td>
<td>35,276</td>
<td>35,071</td>
<td>37,320</td>
<td>33,700</td>
</tr>
<tr>
<td>Causeway School Museum</td>
<td>2,755</td>
<td>2,577</td>
<td>2,269</td>
<td>2,206</td>
<td>2,746</td>
<td>n/a</td>
</tr>
<tr>
<td>Total</td>
<td>532,423</td>
<td>631,929</td>
<td>656,757</td>
<td>695,440</td>
<td>702,500</td>
<td>620,830</td>
</tr>
<tr>
<td>Average Number of Visitors per site</td>
<td>133,106</td>
<td>105,322</td>
<td>109,460</td>
<td>115,907</td>
<td>117,083</td>
<td>155,208</td>
</tr>
</tbody>
</table>

The Giant's Causeway Visitor Centre is by far the most popular attraction within the AONB and currently attracts approximately more than three times as many visitors than any other site in the AONB. The number of visitors to the Causeway has increased steadily since the mid-eighties, and does not appear to be greatly influenced by trends apparent in the local area.
Data for the 2000 season does indicate a reduction in Causeway visitors by 9% from the previous year, compared to a 33% increase at Carrick-a-Rede Rope Bridge which re-opened following refurbishment in April 2000.

Tourist Information Centres - Provision and Usage

The only tourist information centre (TIC) in the AONB is the centre operated by Moyle BC at the Causeway itself. Three TICs are located in the main settlements surrounding the AONB:

- Ballycastle (in the municipal buildings)
- Coleraine
- Portrush (in the Dunluce Centre, a seasonal tourist attraction)

Another TIC is found at the southern end of the Antrim coast in Larne which is the main point of entry for many tourists coming into Northern Ireland, particularly from Scotland and the North of England.

The TIC at the Causeway has welcomed more than 5 million visitors since 1986, an average of more than 340,000 per annum (Figure 7). Attendances at the Causeway TIC, which tend to reflect overall visits to the site, have steadily increased in recent years with the highest year-on-year increase occurring in 1995 which saw a general cease fire and the beginning of the Peace Process (Figure 8).

**Figure 7: Enquiries at TICs along the Causeway Coast, 2000 - 2001**

<table>
<thead>
<tr>
<th>TIC</th>
<th>2000</th>
<th>2001</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giants Causeway TIC</td>
<td>388,000</td>
<td>400,000</td>
<td>3%</td>
</tr>
<tr>
<td>Larne TIC</td>
<td>37,876</td>
<td>37,016</td>
<td>-2%</td>
</tr>
<tr>
<td>Portrush TIC</td>
<td>36,788</td>
<td>28,948</td>
<td>-21%</td>
</tr>
<tr>
<td>Coleraine TIC</td>
<td>23,781</td>
<td>27,722</td>
<td>17%</td>
</tr>
<tr>
<td>Ballycastle TIC</td>
<td>23,734</td>
<td>23,728</td>
<td>0%</td>
</tr>
<tr>
<td>All TICs</td>
<td>510,175</td>
<td>517,414</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: Causeway Coast & Glens RTO. Additional analysis by PLB Consulting Ltd

**Figure 8: Visitors to Giant's Causeway Tourist Information Centre 1985 – 2000**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>250,000</td>
</tr>
<tr>
<td>1987</td>
<td>300,000</td>
</tr>
<tr>
<td>1988</td>
<td>270,000</td>
</tr>
<tr>
<td>1989</td>
<td>300,000</td>
</tr>
<tr>
<td>1990</td>
<td>277,320</td>
</tr>
<tr>
<td>1991</td>
<td>325,000</td>
</tr>
<tr>
<td>1992</td>
<td>327,556</td>
</tr>
<tr>
<td>1993</td>
<td>347,834</td>
</tr>
<tr>
<td>1994</td>
<td>330,000</td>
</tr>
<tr>
<td>1995</td>
<td>408,790</td>
</tr>
<tr>
<td>1996</td>
<td>395,015</td>
</tr>
<tr>
<td>1997</td>
<td>378,481</td>
</tr>
<tr>
<td>1998</td>
<td>407,806</td>
</tr>
<tr>
<td>1999</td>
<td>433,745</td>
</tr>
<tr>
<td>2000</td>
<td>395,247</td>
</tr>
</tbody>
</table>

Total 5,146,794
Profile of Tourists and Day Visitors to the Giant's Causeway AONB

Length of stay in the area by individual travellers averages 3.6 nights, or 58% of the average period spent within Northern Ireland. This is considerably longer than tourists travelling with tour operators, who have an average stay of 1.5 days\(^3\).

Market research undertaken with visitors to the Giant's Causeway indicates that the largest percentage of visitors is from Northern Ireland, of whom the majority seem to be day visitors. The next largest groups are from the 'rest of Great Britain and Continental Europe\(^6\). Other major source countries include the USA, Canada, Australia and New Zealand.

Average length of stay on site is around 2 hours. Visits to the Giant's Causeway are dependent on time and weather factors as can be expected for a largely outdoor attraction. Most people spend longer periods of time visiting the site when the weather is fine. The majority of visitors visit the site in the afternoon period, with a peak time between 3 and 4pm, and at weekends and Bank Holidays\(^5\).

The Importance of the Giant's Causeway in Stimulating Tourism in the AONB

Research indicates that the Giant's Causeway is an important influencing factor for the majority of out-of-state and touring visitors in Northern Ireland, with approximately three-quarters of these groups visiting the site during their holiday\(^4\). The Giant's Causeway is considered to be the main reason for up to 30% of all visits to the Causeway Coast\(^7\).

Research on visit patterns across the area indicates that the sites in County Antrim visited most frequently in combination with the Giant's Causeway are\(^8\):

- Antrim Coast Road
- Ballintoy
- Benone
- Bushmills Distillery
- Carrick-a-Rede
- Carrickfergus Castle
- Dunluce Castle
- Glenariff Forest Park

*Italicics = within AONB*

In addition to the Causeway itself, the majority of tour operators operating in Northern Ireland tend to focus on a limited number of sites including the Giant's Causeway, the Old Bushmills Distillery, Carrick-a-Rede and, to a lesser extent, Dunluce Castle, creating a clustering of visits within the Causeway area\(^9\).

In order to build on the strengths of this core area, it has been suggested recently that a number of 'high visibility attractors' should be developed to capture the

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\(^3\) Countryside Consultancy (2001) p31 citing System 3
\(^4\) Countryside Consultancy (2001) p63
\(^5\) O'Neil, Baseline Report for the Causeway Coast (2001), p7
\(^8\) Source: Countryside Consultancy (2001) p31
\(^9\) Source: Countryside Consultancy (2001) p30
attention of touring visitors who are en-route to or from the Causeway\textsuperscript{10}. Schemes proposed in the Coleraine Borough Council Tourism Development Strategy 2001 - 2010 included the creation of a branded coastal route that would either originate or terminate at the Causeway, and the establishment of a coastal tram or bus tour run by a company such as Translink or Guide Friday\textsuperscript{11}. Initiatives along these lines have already been implemented with some success.

Summary

To summarise, the Causeway Coast AONB contains many of the most important elements of Northern Ireland’s tourism product and its protection, conservation and management is essential to the future of tourism across the whole of Northern Ireland. The fact that the tourism sector is under-performing considerably at a national level presents real opportunities for targeted development and management activities across the AONB designed to support tourism growth in a sustainable fashion. This can be achieved by enhancing the area’s appeal to both out-of-state and domestic visitors from a number of relevant segments, including:

- The short-break market (including families and older couples not accompanied by children)

- The activities market (e.g. hiking, cycling, golf)

- Special interest holidays (e.g. painting, archaeological and built heritage, botany, ornithology)

\textsuperscript{10} Source: TTC & Tourism and Leisure Partners (2000) \textit{Tourism Development Strategy for the Borough of Coleraine}, p37

\textsuperscript{11} Source: TTC & Tourism and Leisure Partners (2000) \textit{Tourism Development Strategy for the Borough of Coleraine}, p42
Appendix 6
Transport Analysis
Transport Analysis

Visitor Survey

A Visitor Survey of the Causeway Coast was undertaken in Summer 1997, as part of the Management Study of the Giant’s Causeway Area Between Bushmills and Carrick-a-Rede (Caroline Windrum, Queens University, Belfast, 1997). Visitors to a number of sites were interviewed, and in addition questionnaires were left at B&Bs, hotels and visitor attractions. A total of 446 responses were received. Questionnaires included questions on a variety of topics. The results of relevant transport-based questions are summarised below.

Fig. 1 shows the types of transport used to visit the Causeway Coast. Private car was used by 83% of visitors travelling in the area. This compared closely with the 84% of visitors at the Giant’s Causeway reported in the Market Solutions survey of 1992. International visitors are the most likely group to use public transport services.

<table>
<thead>
<tr>
<th>VISITOR’S RESIDENCE</th>
<th>BUS</th>
<th>COACH TOUR</th>
<th>CAR</th>
<th>FOOT</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern Ireland</td>
<td>-</td>
<td>3</td>
<td>02</td>
<td>5</td>
<td>-</td>
</tr>
<tr>
<td>Republic of Ireland</td>
<td>-</td>
<td>5</td>
<td>95</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Great Britain</td>
<td>3</td>
<td>9</td>
<td>81</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>8</td>
<td>71</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>6</td>
<td>6</td>
<td>83</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Traffic surveys were also undertaken as part of the study, on the roads between Bushmills and Carrick-a-Rede. Research indicated that average daily traffic on the A2 has increased from 1880 vehicles/day in 1989, to 3084 vehicles/day in 1995. As would be expected, the numbers of cars are higher in the summer than in the winter.

Traffic flows are not spread evenly throughout the study area. The heaviest traffic flows occur on the A2 out of Bushmills to the junction with the B146. Drivers then turn down the B146 to reach the Giant’s Causeway. Lower traffic flows were recorded on the B146 east of the Giant’s Causeway, which suggests that most visitors return directly to Bushmills.

There are a number of car parks within the study area. Those at the eastern end (Giant’s Causeway, Bushmills, Larrybane and Carrick-a-Rede) were at or close to capacity when surveyed in summer 1997. However, car parks further east (Dunseverick Harbour, Whitepark Bay and Ballintoy Harbour) were well below capacity on the day of the survey. The survey identified the additional problem of drivers parking on verges outside official car parks, even when the car parks were not full.

Public Transport Provision

A review of public transport provision (i.e. bus services) within the whole of the AONB was carried out as part of the Baseline Report for the Causeway Coast AONB (Kate O’Neill, Queens University, Belfast 2002).
Five public bus routes run within the AONB, namely:

- Service 376: Bushmills – Carrick-a-Rede (Causeway Rambler)
- Service 132: Portrush - Bushmills – Ballymoney
- Service 138: Portballintrae – Bushmills - Coleraine
- Service 172: Portrush – Ballycastle (via Giant's Causeway)
- Service 177: Portrush – Ballycastle (via Giant's Causeway)
- Service 252: Portrush – Ballycastle (via Giant's Causeway)

The timetables for these routes are set out on the following pages.

Bus stops on the Ballycastle – Portrush route are situated at: Ballycastle, Ballintoy, Portbradden, Dunseverick Castle, Giant's Causeway, Bushmills, Portballintrae and Portrush.

The Causeway Rambler service, operated by Translink in partnership with the National Trust, has an eco-tourism focus. It encourages visitors to the Causeway Coast to leave their cars behind and explore this scenic area on foot. The Causeway Rambler operates from Portrush to Ballycastle. Tourists can start their ramble at various points along the coastal path, then use the bus to return to their start point.

**Paddywagon Tours**

Paddywagon Tours are a tour company based in Dublin, but travel to the North Antrim coast three times a week during high season, and twice a week during the low season. The 2-day tour incorporates visits to Carrick-a-Rede, Giant's Causeway and Dunluce Castle. Visitors stay overnight in the Youth Hostel in Ballintoy.

**Bus Service Timetables**

<table>
<thead>
<tr>
<th>Service 376: Carrick-a-rede – Bushmills: Causeway Rambler</th>
<th>Monday – Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrick-a-rede (dep)</td>
<td>10.30 11.30 12.30 14.15 15.15 16.15 17.15</td>
</tr>
<tr>
<td>Ballintoy (dep)</td>
<td>10.32 11.32 12.32 14.17 15.17 16.17 17.17</td>
</tr>
<tr>
<td>White Park Bay (dep)</td>
<td>10.35 11.35 12.35 14.20 15.20 16.20 17.20</td>
</tr>
<tr>
<td>Causeway Centre (dep)</td>
<td>10.50 11.50 12.50 14.35 15.35 16.35 17.35</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service 132: Portrush - Bushmills – Ballymoney</th>
<th>Monday – Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bushmills (dep)</td>
<td>10.00 11.00 12.00 14.45 15.45 16.45</td>
</tr>
<tr>
<td>Causeway Centre (dep)</td>
<td>10.05 11.05 12.05 14.50 15.50 16.50</td>
</tr>
<tr>
<td>Dunseverick Castle (dep)</td>
<td>10.15 11.15 12.15 15.00 16.00 17.00</td>
</tr>
<tr>
<td>White Park Bay (dep)</td>
<td>10.20 11.20 12.20 15.05 16.05 17.05</td>
</tr>
<tr>
<td>Ballintoy (dep)</td>
<td>10.23 11.23 12.23 15.08 16.08 17.08</td>
</tr>
<tr>
<td>Carrick-a-rede (arr)</td>
<td>10.25 11.25 12.25 15.10 16.10 17.10</td>
</tr>
</tbody>
</table>
### Service 132: Portrush – Bushmills – Ballymoney

<table>
<thead>
<tr>
<th></th>
<th>Monday – Friday</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Portrush (dep)</td>
<td>07:30 14.00</td>
<td>Ballymoney (dep)</td>
</tr>
<tr>
<td>Portballintrea (dep)</td>
<td>07:45 14.15</td>
<td>Stranocum (dep)</td>
</tr>
<tr>
<td>Bushmills (dep)</td>
<td>07:50 14.20</td>
<td>Dervock (dep)</td>
</tr>
<tr>
<td>Castlecot (dep)</td>
<td>07:57 14.27</td>
<td>Derrykeighan (dep)</td>
</tr>
<tr>
<td>Derrykeighan (dep)</td>
<td>08:02 14.32</td>
<td>Castlecot (dep)</td>
</tr>
<tr>
<td>Dervock (dep)</td>
<td>08:06 14.36</td>
<td>Bushmills (dep)</td>
</tr>
<tr>
<td>Stranocum (dep)</td>
<td>08:13 14.53</td>
<td>Portballintrea (dep)</td>
</tr>
<tr>
<td>Ballymoney (dep)</td>
<td>08:30 15.03</td>
<td>Portrush (arr)</td>
</tr>
</tbody>
</table>

No Saturday or Sunday Service

### Service 138: Portballintrea – Bushmills – Coleraine

<table>
<thead>
<tr>
<th></th>
<th>Monday – Friday</th>
<th>Saturday</th>
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<tbody>
<tr>
<td>Portrush (dep)</td>
<td>07:20 08:05</td>
<td>17.05 08.00</td>
</tr>
<tr>
<td>Portballintrea (dep)</td>
<td>08:40 10.40</td>
<td>13.45 17.20</td>
</tr>
<tr>
<td>Bushmills (dep)</td>
<td>07:25 08:10</td>
<td>13.50 16.05</td>
</tr>
<tr>
<td>Beardville (dep)</td>
<td>07:35 08:20</td>
<td>14.00 16.15</td>
</tr>
<tr>
<td>Coleraine (arr)</td>
<td>07:50 08:35</td>
<td>14.15 16.30</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Monday – Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coleraine (arr)</td>
<td>08:45 10.05</td>
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<td>15.30 17.30</td>
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<td>14.35 17.25</td>
</tr>
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<td>Portballintrea (dep)</td>
<td>11.10 13.40</td>
<td>14.45 18.05</td>
</tr>
<tr>
<td>Portrush (arr)</td>
<td>10.35 13.40</td>
<td>15.00 18.20</td>
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</tbody>
</table>

No Sunday Service

### Service 172: Portrush – Ballycastle (via Giant’s Causeway)

<table>
<thead>
<tr>
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</thead>
<tbody>
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<tr>
<td>172 Portballintrea (dep)</td>
<td>08.45</td>
</tr>
<tr>
<td>172 Bushmills (dep)</td>
<td>07.45 09.00</td>
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<tr>
<td>172 Giant’s Causeway (dep)</td>
<td>L</td>
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<tr>
<td>172 Ballintoy (dep)</td>
<td>08.05 10.10</td>
</tr>
<tr>
<td>172 Ballycastle (arr)</td>
<td>08.25 10.30</td>
</tr>
</tbody>
</table>

L – Via Lisnagunagh (does not serve Giant’s Causeway)

### Service 177: Portrush – Ballycastle (via Giant’s Causeway)

<table>
<thead>
<tr>
<th></th>
<th>Monday – Friday</th>
</tr>
</thead>
<tbody>
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<td>09.45 12.05</td>
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<tr>
<td>177 Portballintrea (dep)</td>
<td>10.00 14.40</td>
</tr>
<tr>
<td>177 Bushmills (dep)</td>
<td>10.05 12.25</td>
</tr>
<tr>
<td>177 Giant’s Causeway (dep)</td>
<td>10.15 14.55</td>
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<td>177 Ballintoy (dep)</td>
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</tr>
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<td>177 Ballycastle (arr)</td>
<td>10.35 18.50</td>
</tr>
</tbody>
</table>

*W – Open top service operates weather permitting  * – July and August only
### Service 252: Portrush – Ballycastle (via Giant’s Causeway)

<table>
<thead>
<tr>
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<th>Monday – Friday</th>
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<tbody>
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<td></td>
<td>252 E</td>
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<td>Portrush (dep)</td>
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</tr>
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<td>Portballintrae (dep)</td>
<td>10.12</td>
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<td>Bushmills (dep)</td>
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<td>Ballintoy (dep)</td>
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<tr>
<td>Ballycastle (arr)</td>
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</table>

*E – Antrim Coaster Goldline Express Service*

### Service 172, 177, 252: Portrush – Ballycastle (via Giant’s Causeway)

#### Saturday

<table>
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<td>16.10</td>
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<td></td>
</tr>
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<td>10.00</td>
<td>10.12</td>
<td>12.20</td>
<td>14.40</td>
<td>15.40</td>
<td>16.22</td>
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<tr>
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<td>10.15</td>
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<td>18.10</td>
</tr>
<tr>
<td>Giant’s Causeway (dep)</td>
<td>09.55</td>
<td>10.15</td>
<td>10.20</td>
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<td>14.55</td>
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<td>16.30</td>
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#### Sunday

<table>
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<td>Giant’s Causeway (dep)</td>
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<td>11.25</td>
<td>12.35</td>
<td>14.55</td>
<td>15.25</td>
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<td>17.05</td>
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<td></td>
<td></td>
<td>17.50</td>
<td></td>
</tr>
<tr>
<td>Ballycastle (arr)</td>
<td>10.50</td>
<td>12.00</td>
<td></td>
<td>16.00</td>
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<td></td>
<td></td>
<td></td>
<td>18.10</td>
<td></td>
</tr>
</tbody>
</table>

*W – Open top service operates weather permitting*

*E – Antrim Coaster Goldline Express Service*

*E – Antrim Coaster Goldline Express Service*

*RTF – Supported by the Rural Transport Fund*

*– July and August only*
Appendix 7

Criteria for the designation of World Heritage Sites
Criteria for the Designation of World Heritage Sites

To be included on the World Heritage List, sites must meet the selection criteria. These criteria are explained in the Operational Guidelines which, besides the text of the convention, is the World Heritage Committee's main document. Revised regularly by the Committee, the criteria have evolved to match the evolution of the World Heritage concept itself.

Operational Guidelines for the implementation of the World Heritage Convention (UNESCO)

Criteria for the inclusion of natural properties in the World Heritage List

43. In accordance with Article 2 of the Convention, the following is considered as "natural heritage":

"natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view;

ground geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals and plants of outstanding universal value from the point of view of science or conservation;

natural sites or precisely delineated natural areas of outstanding universal value from the point of view of science, conservation or natural beauty."

44(a). A natural heritage property - as defined above - which is submitted for inclusion in the World Heritage List will be considered to be of outstanding universal value for the purposes of the Convention when the Committee finds that it meets one or more of the following criteria and fulfils the conditions of integrity set out below. Sites nominated should therefore:

i. be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features; or

ii be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals; or

iii contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance; or

iv contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation; and

also fulfil the following conditions of integrity:

• The sites described in 44(a)(i) should contain all or most of the key interrelated and interdependent elements in their natural relationships; for example, an "ice age" area should include the snow field, the glacier itself and samples of cutting patterns, deposition
and colonization (e.g. striations, moraines, pioneer stages of plant succession, etc.); in the case of volcanoes, the magmatic series should be complete and all or most of the varieties of effusive rocks and types of eruptions be represented.

- The sites described in 44(a)(ii) should have sufficient size and contain the necessary elements to demonstrate the key aspects of processes that are essential for the long-term conservation of the ecosystems and the biological diversity they contain; for example, an area of tropical rain forest should include a certain amount of variation in elevation above sea-level, changes in topography and soil types, patch systems and naturally regenerating patches; similarly a coral reef should include, for example, seagrass, mangrove or other adjacent ecosystems that regulate nutrient and sediment inputs into the reef.

- The sites described in 44(a)(iii) should be of outstanding aesthetic value and include areas that are essential for maintaining the beauty of the site; for example, a site whose scenic values depend on a waterfall, should include adjacent catchment and downstream areas that are integrally linked to the maintenance of the aesthetic qualities of the site.

- The sites described in paragraph 44(a)(iv) should contain habitats for maintaining the most diverse fauna and flora characteristic of the biographic province and ecosystems under consideration; for example, a tropical savannah should include a complete assemblage of co-evolved herbivores and plants; an island ecosystem should include habitats for maintaining endemic biota; a site containing wide-ranging species should be large enough to include the most critical habitats essential to ensure the survival of viable populations of those species; for an area containing migratory species, seasonal breeding and nesting sites, and migratory routes, wherever they are located, should be adequately protected; international conventions, e.g. the Convention of Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention), for ensuring the protection of habitats of migratory species of waterfowl, and other multi- and bilateral agreements could provide this assurance.

- The sites described in paragraph 44(a) should have a management plan. When a site does not have a management plan at the time when it is nominated for the consideration of the World Heritage Committee, the State Party concerned should indicate when such a plan will become available and how it proposes to mobilize the resources required for the preparation and implementation of the plan. The State Party should also provide other document(s) (e.g. operational plans) which will guide the management of the site until such time when a management plan is finalized.

- A site described in paragraph 44(a) should have adequate long-term legislative, regulatory, institutional or traditional protection. The boundaries of that site should reflect the spatial requirements of habitats, species, processes or phenomena that provide the basis for its nomination for inscription on the World Heritage List. The boundaries should include sufficient areas immediately adjacent to the area of outstanding universal value in order to protect the site’s heritage values from direct effects of human encroachment and impacts of resource use outside of the nominated area. The boundaries of the nominated site may coincide with one or more existing or proposed protected areas, such as national parks or biosphere reserves. While an existing or proposed protected area may contain several management zones, only some of those zones may satisfy criteria described in paragraph 44(a); other zones, although they may not meet the criteria set out in paragraph 44(a), may be essential for the management to ensure the integrity of the nominated site; for example, in the case of a biosphere reserve, only the core zone may meet the criteria and the conditions of integrity, although other zones, i.e. buffer and transitional zones, would be
important for the conservation of the biosphere reserve in its totality.

- Sites described in paragraph 44(a) should be the most important sites for the conservation of biological diversity. Biological diversity, according to the new global Convention on Biological Diversity, means the variability among living organisms in terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part and includes diversity within species, between species and of ecosystems. Only those sites which are the most biologically diverse are likely to meet criterion (iv) of paragraph 44(a).

45. In principle, a site could be inscribed on the World Heritage List as long as it satisfies one of the four criteria and the relevant conditions of integrity. However, most inscribed sites have met two or more criteria. Nomination dossiers, IUCN evaluations and the final recommendations of the Committee on each inscribed site are available for consultation by States Parties which may wish to use such information as guides for identifying and elaborating nomination of sites within their own territories.

**Evolution of Criteria**

The following table illustrates the evolution of WHS designation criteria, which reflect the evolution of the WHS concept. They highlight the importance of 'natural beauty' in criterion iii, which is particularly relevant to the Giant's Causeway and its context within the Causeway Coast AONB.

---

**Changes to the World Heritage Natural Heritage Criteria as presented in the Operational Guidelines for the Implementation of the World Heritage Convention, 1978-1998**

<table>
<thead>
<tr>
<th>Version of the operational guidelines</th>
<th>natural criterion i</th>
<th>natural criterion ii</th>
<th>natural criterion iii</th>
<th>natural criterion iv</th>
</tr>
</thead>
<tbody>
<tr>
<td>1978</td>
<td>Be outstanding examples representing the major stages of the earth's evolutionary history. This category would include sites which represent the major &quot;eras&quot; of geological history such as the &quot;the age of reptiles&quot; where the development of the planet's natural diversity can well be demonstrated and such as the &quot;ice age&quot; where early man and his environment underwent major changes.</td>
<td>Be outstanding examples representing significant ongoing geological processes, biological evolution and man's interaction with his natural environment. As distinct from the periods of the earth's development, this focuses upon ongoing processes in the development of communities, of plants and animals, landforms and marine and fresh water bodies. This category would include for example (a) as geological processes, glaciation and volcanism, (b) as biological evolution, (c) as cultural evolution, and (d) as the full range of the cultural evolution of man.</td>
<td>Contain unique, rare or superlative natural phenomena, formations or features or areas of exceptional natural beauty, such as superlative examples of the most important ecosystems to man, natural features, (for instance, rivers, mountains, waterfalls), spectacles presented by great concentrations of animals, sweeping vistas covered by natural vegetation and exceptional combinations of natural and cultural elements.</td>
<td>Be habitats where populations of rare or endangered species of plants and animals still survive. This category would include those ecosystems in which concentrations of plants and animals of universal interest and significance are found.</td>
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<td>Date</td>
<td>Requirement</td>
<td>Explanation</td>
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<tr>
<td>October 1980</td>
<td>Be outstanding examples representing the major stages of the earth's evolutionary history.</td>
<td>Be outstanding examples representing significant ongoing geological processes, biological evolution and man's interaction with his natural environment; as distinct from the periods of the earth's development, this focuses upon ongoing processes in the development of communities, of plants and animals, landforms and marine and fresh water bodies.</td>
<td>Contain superlative natural phenomena, formations or features or areas of exceptional natural beauty, such as superlative examples of the most important ecosystems, natural features, spectacles presented by great concentrations of animals, sweeping vistas covered by natural vegetation and exceptional combinations of natural and cultural elements.</td>
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<td>January 1984</td>
<td>No change</td>
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<tr>
<td>February 1994</td>
<td>Be outstanding examples representing major stages of earth's history, including the record of life, significant ongoing geological processes in the development of landforms, or significant geomorphic or physiographic features.</td>
<td>Be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals.</td>
<td>Contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.</td>
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<tr>
<td>February 1997</td>
<td>No change</td>
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</table>

Contain the most important and significant natural habitats where threatened species of animals or plants of outstanding universal value from the point of view of science or conservation still survive.
'Our aim is to protect and conserve the natural and built environment and to promote its appreciation for the benefit of present and future generations.'

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