# Appendix 1c: Landscape and Seascape

## A1c.1 Introduction

Landscape and/or seascape can be defined as, "An area<sup>1</sup>, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors" (from Article 1 of the European Landscape Convention), or alternatively as defined in the Marine Policy Statement (MPS), "landscapes with views of the coast or seas, and coasts and the adjacent marine environment with cultural, historical and archaeological links with each other". These interactions have been graphically represented by Natural England (2012a) in their seascape assessment methodology (Figure A1c.1).

NATURAL

SEASCAPE

SEASCAPE

SURFACE WATER

FORM

FORM

FORM

FORM

SEASCAPE

SURFACE WATER

SURFACE WATER

FORM

SOUNDS

SOUN

Figure A1c.1: Overview of influences on seascape

Source: Natural England (2012a)

The study of seascape is not only concerned with the physical changes in a given view but the interaction of that view with individuals and how it affects both overall visual amenity and the character of an area, which may go beyond just "visual" aspects of seascape. Seascapes and coastal environments (including the sea itself) are extensively used as part of people's living and working environment, and also for recreation which is connected to tourism on which many coastal communities are dependent. Changes to a particular landscape or seascape can therefore be emotive, and can also strongly conflict with commercial and industrial activity (Hill et al. 2001). Seascape and landscape character assessment attempts to identify areas of the coast and adjacent seas based on broadly defining areas of distinctive physical and cultural form. These can be used at a strategic level as input to the consideration of the potential effects of a plan, and as the basis for considering potential impacts of an a given development based on a number of interacting factors (see the guidance in Hill et al. (2001), DTI (2005) and

<sup>&</sup>lt;sup>1</sup> Natural England modify this to "an area of sea, coastland and land" when describing seascape.

Scott et al. (2005), Landscape Institute & IEMA (2013)), however developments will need to undertake site specific assessment.

#### A1c.2 UK context

The "value" placed on landscape may in part be gauged on the presence of designated sites protected for their natural and cultural aesthetics. The coastal fringe of each Regional Sea contains a range of designations which relate in whole or in part to the landscape of that area and these are categorised in the sections which follow. The characterisation and designation of landscapes and seascapes is undertaken at a range of spatial scales, from strategic level characterisation (e.g. regional scale seascape and landscape character assessment<sup>2</sup>), to local assessment at the council level, large areas in whole or part designated for their landscapes (e.g. National Parks, Areas of Outstanding Natural Beauty) and highly localised sites (e.g. Local Landscape Designations).

At the highest level, the European Landscape Convention (ELC) seeks to "promote landscape protection, management and planning, and to organise European co-operation on landscape issues" (Ch. 1 Art. 2), and encompasses "the entire territory of the Parties and covers natural, rural, urban and peri-urban areas. It includes land, inland water and marine areas. It concerns landscapes that might be considered outstanding as well as everyday or degraded landscapes." (Ch. 1 Art. 1), and therefore considers that all landscapes are important, not just the outstanding but also the everyday landscapes where most people live, work and spend much of their time. Many of the current landscape designations for the UK satisfy the articles set out in the convention (Defra 2007), though it can be generally accepted that the treatment of landscape in countryside environments is better than that in urban areas (Defra 2005).

The ELC requires, "landscape to be integrated into regional and town planning policies and in cultural, environmental, agricultural, social and economic policies, as well as any other policies with possible direct or indirect impacts on landscape" (Article 5 (d)), and Natural England commissioned guidance on how to integrate the principles of the ELC into plans, policies and strategies (NE 2009). The ELC has been acknowledged in policy including the Marine Policy Statement (MPS) which states that all coastal landscapes should be considered when developing marine plans, not just those which are protected through designations. Consistent with the MPS, the first of England's marine plans and Scotland's National Marine Plan both recognise that planners and developers generally take landscape and seascape into account. As part of the process for English plans, seascape studies are being undertaken, informed by quidance (NE 2012a) commissioned as part of the first set of English marine plans. Similarly, a seascape project has recently been undertaken for Welsh waters<sup>3</sup> and has identified 29 character areas which complement a number of local studies including the Pembrokeshire Seascape Character Assessment, Landscape and seascapes of Eryri (Snowdonia) and Anglesey seascape character assessment – see Figure A1c.4 for an overview of the character areas (see Figure A1c.3). Northern Ireland's Regional Seascape Character Assessment<sup>4</sup> defines 24 character areas, which complement coastal landscape character areas identified above.

-

<sup>&</sup>lt;sup>2</sup> E.g. see:

http://webarchive.nationalarchives.gov.uk/20100707141229/http://www.landscapecharacter.org.uk/db/index.html for an archive of LCAs undertaken 1985-2010

<sup>&</sup>lt;sup>3</sup> http://www.naturalresources.wales/our-evidence-and-reports/marine-character-areas/?lang=en

<sup>&</sup>lt;sup>4</sup> https://www.doeni.gov.uk/publications/northern-ireland-regional-seascape-character-assessment

In addition to seascape characterisation that has been undertaken for England and Wales, viewshed analysis was undertaken for the coast of England and Wales as part of the marine planning process. This allows for the mapping of areas of sea visible from land and land with sea views (Figure A1c.2). This does not reflect other influences on visibility relevant to this plan/programme including atmospheric conditions (e.g. contrast and haze), the chromatic contrast of structures at sea and their surroundings (i.e. sea and sky), the arrangement/complexity of offshore activities, and also the structure height (dipping height) of offshore objects which may be above the level of a given horizon. These can influence the visibility of activities, and may influence the effect of new developments such as offshore wind which is considered in Section 5.8.

Landscapes with coastal views are also captured through a number of other national initiatives. including the National Character Area (NCA) network in England (Figure A1c.3), The Landscapes of Scotland<sup>5</sup> and Natural Heritage Futures<sup>6</sup> (see SNH 2002) in Scotland, National Landscape Character Areas in Wales (A1c.4), and the Northern Ireland Landscape Character Areas and Regional Landscape Character Assessment<sup>7</sup>. These form part of a hierarchy of landscape and seascape assessment, with a range of other landscape and seascape character assessments having been undertaken at the local to regional level. These regional scale characterisations, along with Historic Landscape and Seascape Characterisations (below). generally also consider changes to landscape/seascape and forces for landscape/seascape change (i.e. what the drivers of these changes are). The above character areas cover both terrestrial aspects of the landscape which may have little or no intervisibility with the coast, but also coastal areas, and it is also recognised that character and associations with the coast and seas may go beyond visual components of landscape and seascape. In England, monitoring of environmental stewardship schemes has resulted in information for each of the NCAs on the impact of the scheme on landscape, however overall trends in changes to these areas (e.g. through Countryside Quality Counts) are becoming dated and more recent specific monitoring is required (NE 2015).

Historic Landscape Characterisation (HLC) has been carried out as part of a country-wide initiative in Wales, administered by each Welsh archaeological trust. Similarly, English Heritage has prepared HLC reports in association with local authorities and councils for almost two thirds of England. These are presented either in themed report form (e.g. Woodland, Industry) and/or interactive online GIS environments. This approach has been modified (see Tapper 2009. Tapper & Hooley 2010) in the production of Historic Seascape Characterisation (HSC) which was piloted in five locations (Liverpool Bay and waters off the Fylde, The Solent and waters off the Isle of Wight, Southwold to Clacton, Withernsea to Skegness and Scarborough to Hartlepool) resulting in an updated approach, and has now been completed for all English inshore and offshore waters. The method has the aim of mapping the historic character of an area which has developed over time through interactions with human activity, and uses historical charts, maps, documentary sources and modern data to generate mapped outputs. Areas are defined by "type" where they share historic characteristics. An overall "conflated" map is produced accounting for the range of mapped character types which may relate to seabed, water column or sea surface features. Each of the studies has both mapped outputs

\_

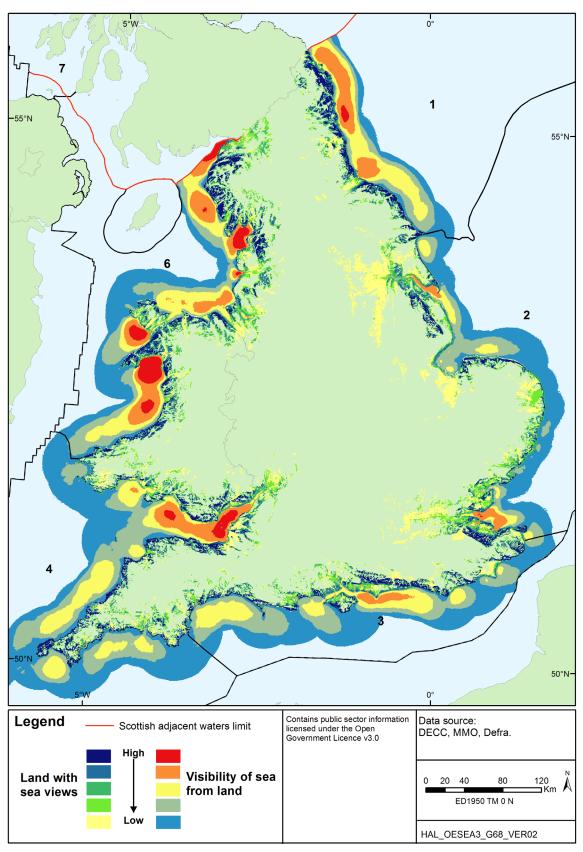
<sup>&</sup>lt;sup>5</sup> <a href="http://www.snh.gov.uk/about-scotlands-nature/scotlands-landscapes/landscapes-varieties/">http://www.snh.gov.uk/about-scotlands-nature/scotlands-landscapes/landscapes-varieties/</a> present an overview of Scotland's landscapes which links to and complement more specialist analysis in Landscape Character Assessments. Note these are very high level accounts of these areas.

<sup>6</sup> <a href="http://www.snh.gov.uk/about-snh/what-we-do/nhf/">http://www.snh.gov.uk/about-snh/what-we-do/nhf/</a>

<sup>&</sup>lt;sup>7</sup> http://doeni.maps.arcgis.com/apps/MapJournal/index.html?appid=dee491ff43c0415fbb986f74c92f39a9 also see Northern Ireland's Landscape Charter: <a href="https://www.doeni.gov.uk/publications/northern-ireland%E2%80%99s-landscape-charter">https://www.doeni.gov.uk/publications/northern-ireland%E2%80%99s-landscape-charter</a>

and extensive character area descriptions and include, Regional Sea 1: Scarborough to Hartlepool, Regional Sea 2: Withernsea to Skegness, East Yorkshire to Norfolk, Southwold to Clacton, Newport to Clacton and Adjacent Water, Regional Sea 3: Hastings to Purbeck and adjacent waters HSC, Regional Sea 4: South West Peninsula, Bristol Channel and Severn Estuary, Regional Sea 6: The Irish Sea (English sector), Liverpool Bay and waters off the Fylde.

Figure A1c.2: Land with sea views and sea visibility from land, England and Wales



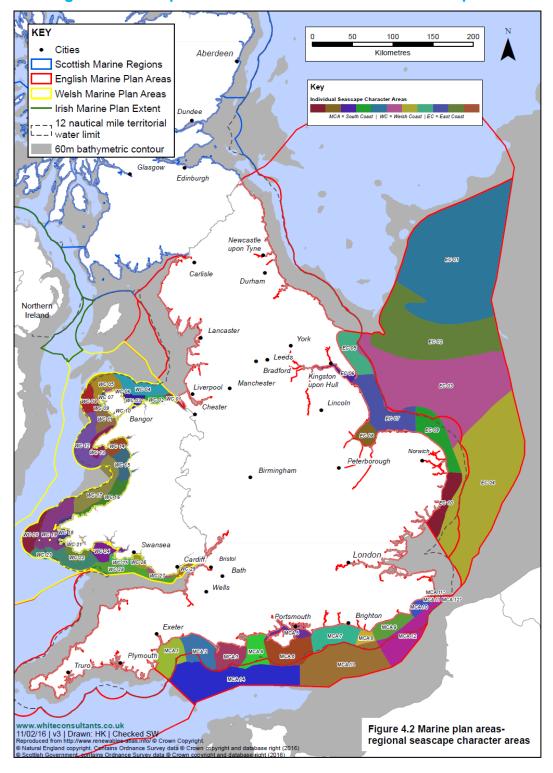


Figure A1c.3: Regional seascape character areas and related marine plan areas

Legend Welsh Seascape Units English Seascape Units Scottish Seascape Units Kilometres 30 60 120 180 240

Figure A1c.4: Regional seascape units defined for the UK (excluding Northern Ireland)

Source: White Consultants (2009)

Hill et al. (2001) introduced the concept of using "seascape units" is seascape characterisation and assessment, which are spatial areas defined partly by the remit of a given seascape study and by the changing physical attributes of the coast. These can be considered on a national, regional and local scale – for wind turbine developments, the regional scale is typically adopted (Hill et al. 2001, DTI 2005). This concept has been used to identify relevant seascape units for the Scottish (Scott et al. 2005), English (White Consultants 2009) and Welsh (CCW 2008a, b) coasts (Figure A1c.4). The character, sensitivity and capacity of these areas to a given development scenario can then be assessed, as has been undertaken for English and Welsh waters using the units mentioned. These units and their accompanying characterisation and assessment have been used to inform the assessment in Section 5.8.

White Consultants (2016) were commissioned as part of the OESEA3 process to undertake analysis of Seascape Visual Impact Assessments (SVIAs) produced for wind farms with larger turbine sizes since the first offshore energy SEA in 2009. Additionally a wireline analysis to evaluate wind farm scenarios at varying distances from the coast with larger turbines sizes up to 15MW in size was undertaken. The report also considered a range of visibility modifiers (e.g. haze, lighting effects) that affect the distance at which wind farms are visible from the coast. Together, these elements have contributed to the assessment in Section 5.8.

# A1c.3 Landscape designations and classifications

The following provides an overview of the main landscape types found in the UK. These are made up of statutory designations and non-statutory classifications but which are often material planning considerations, such as Heritage Coasts or the register of historical landscapes in Wales. Others, such as national trails, though not principally landscape designations may be affected by changes to views, and under recent legislation and related initiatives coastal trails are being designated and made around the coast of the UK. Most are shown in Figure A1c.5. National trails are mapped and discussed further in Appendix 1h.

## A1c.3.1.1 Areas of Outstanding Natural Beauty (AONB)

AONB designations are made by Natural England (NE), the Natural Resources Wales (NRW) and the Northern Ireland Environment Agency (NIEA), and these bodies also advise on policies for their protection. Provision is made to preserve not only the natural environment but traditional agriculture, forestry and industry. AONB designations are made under the *National Parks and Access to the Countryside Act 1949* amended by the *Environment Act 1995* in England and Wales; and the *Nature Conservation and Amenity Lands (NI) Act 1985* (as amended) in Northern Ireland. The Countryside and Rights of Way Act 2000 clarifies the procedure and purpose of AONB designations.

## A1c.3.1.2 Heritage Coasts (England and Wales)

Heritage coasts comprise areas of coast more than 1 mile in length which are of exceptional scenic value and which are largely undeveloped. Their purpose is to protect and enhance the coast and their heritage features including architecture and archaeology. These are a non-statutory landscape definition which is agreed between the maritime agency and Natural England, and the Countryside Council for Wales. Though these sites are not afforded the same protection as National Parks or AONB, most are located within areas with such designations.

#### A1c.3.1.3 National Parks

The primary objective of National Parks is to preserve and enhance the landscape, while promoting public enjoyment, particularly of those residing within the park. The *National Parks* and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and in Scotland by the *National Parks* (Scotland) Act 2000. In addition, the Environment Act 1995 requires relevant authorities to have regard for nature conservation.

#### A1c.3.1.4 Country Parks

Statutorily declared under the *Countryside Act 1968*, or the *Countryside (Scotland) Act 1967*, Country Parks are intended for recreation and leisure close to population centres and need not have any nature conservation importance, though some form semi-natural environments. Country Parks are presently being created under less formal arrangements if they fulfil certain

requirements provided by Natural England<sup>8</sup>. Additionally, in Scotland there are three Regional Parks (Clyde Muirshiel, Pentland Hills and Lomond Hills, though the latter is subsumed into the Loch Lomond and the Trossachs National Park), also made under the *Countryside (Scotland) Act 1967*, containing regionally important landscapes, and providing important areas for wildlife and outdoor recreation close to large towns or cities.

# A1c.3.1.5 Register of Landscape of Historic Interest in Wales and historic parks and gardens

Cadw, the Countryside Council for Wales (now NRW) and the International Council on Monuments and Sites (ICOMOS UK) collaborated to produce the Register of Landscapes of Historic Interest in Wales as a means of identifying, and to provide information on, the most important and best-surviving historic landscapes in Wales. The areas defined in the register do not have a "statutory" basis and are not designated, but are included as a planning consideration in Planning Policy Wales (2016). There are 58 historic landscapes on the register (see Cadw 2007). Additionally, historic parks and gardens are listed on the Cadw/ICOMOS Register of Parks and Gardens of Special Historic Interest in Wales, for which there are presently around 400 entries.

### A1c.3.1.6 World Heritage Sites

These sites are designated by UNESCO according to their natural (physical, biological, geological) or cultural (historic, aesthetic, archaeological monuments and structures) attributes, and should be considered to be of outstanding universal value, in addition to fulfilling at least one of six cultural and/or four natural criteria<sup>9</sup>.

#### A1c.3.1.7 National Scenic Areas (Scotland)

National Scenic Areas (NSAs) are Scotland's only national landscape designation, made under *The Town and Country Planning (National Scenic Areas) (Scotland) Designation Directions* 2010. They are those areas of land considered of national significance on the basis of their outstanding scenic interest which must be conserved as part of the country's natural heritage. They have been selected for their characteristic features of scenery comprising a mixture of richly diverse landscapes including prominent landforms, coastline, sea and freshwater lochs, rivers, woodlands and moorlands.

## A1c.3.1.8 Local Landscape Designations (Scotland)

Local Landscape Designations (LLDs) are defined by local authorities with the aim of protecting the aesthetic appeal of an area while helping guide change in the planning process. In Scotland these are known as Special Landscape Areas, and are shown in local developments plans along with policies to safeguard the features for which they have been selected. Nearly a third of the Scottish landscape is covered by such designations.

## A1c.3.1.9 Scheduled Monuments and Listed Buildings

In addition to those designations outlined above, the setting of heritage assets<sup>10</sup>, defined in the Marine Policy Statement as "buildings, monuments, sites or landscapes – that have been positively identified as holding a degree of significance meriting consideration", are also

428

<sup>&</sup>lt;sup>8</sup> https://www.gov.uk/guidance/get-accreditation-for-your-country-park

https://historicengland.org.uk/advice/hpg/has/whs/

<sup>&</sup>lt;sup>10</sup> The setting, or surroundings in which a heritage asset is experienced, is also a consideration of the National Planning Policy Framework. Also see: Historic England (2015)

considered in this section. These may include, among other things, scheduled monuments, listed buildings and parks and gardens of special historic interest. Relevant coastal monuments and buildings are mapped in Appendix A1j. Additionally, a number of historic landscape and seascape character assessments have been undertaken across the UK and these will be highlighted in the relevant section below.

#### A1c.3.1.10 Wild Land Areas (Scotland)

SNH (2014) defined 42 wild land areas, which are extensive areas of wilderness identified as nationally important in Scottish Planning Policy. The areas supersede earlier work on search areas for wild land in Scotland (2012), and were selected following consultation on the 2013 "core areas" wild land map. The areas, totalling over 1.5 million hectares or 19.5% of Scotland, have a largely western distribution, much like NSAs. SNH (2014) provide advice to Government detailing the methods used to derive the wild land map and how it should be used. Descriptions for each of the wild land areas are presently being prepared but were not available at the time of writing.

## A1c.3.1.11 Coastal Paths (also see Appendix 1h)

The Marine and Coastal Access Act 2009 placed a statutory duty on Natural England and the Secretary of State "the coastal access duty" to develop a trail of the English coast which the public can access, and an adjoining margin of land for recreational use. The methodology to implement coastal access duty is detailed in the coastal access scheme (Natural England 2013), and progress is reported on the Natural England website. It is anticipated that the English route will be complete by 2020, with four out of 62 sections complete to date (North Gare to South Bent, Sea Palling to Weybourne, Rufus Castle to Lulworth Cove and Allonby to Whitehaven). Wales and Scotland have similar programmes. The Wales Coastal Path<sup>11</sup> is complete but continues to receive funding for maintenance and improvements. Scotland's coastal trail is presently informally made up of a number of long-distance trails, however a network of long-distance routes, including a coast aspect, are proposals referred to in the National Marine Plan and National Planning Framework 3. Coastal and other long-distance trails are not landscape specific designations, but their objectives of providing coastal access and recreation may encourage a greater number of people to visit the coast, and the adjacent landscape/seascape is an inherent part of these paths and adjoining recreation areas.

-

<sup>11</sup> http://www.walescoastpath.gov.uk/

Figure A1c.5: UK landscape related designations

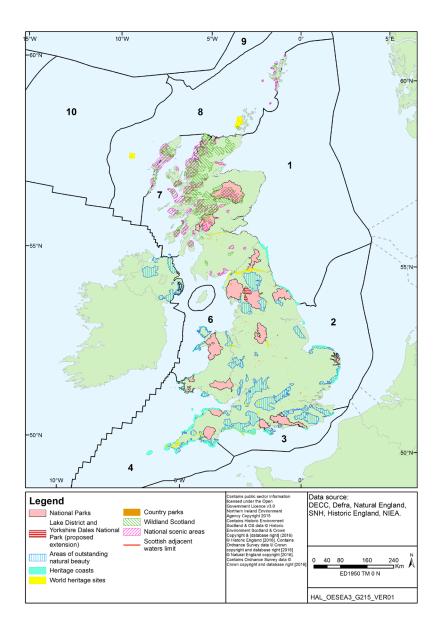
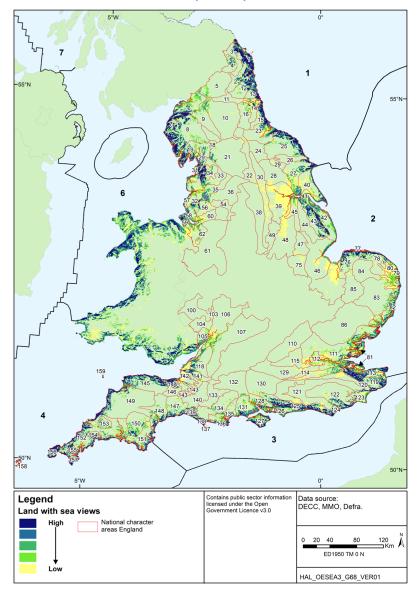


Figure A1c.6: National Character Areas in England, selected on the basis of potentially having areas with sea views as defined by the methods used in MMO (2014a)



# A1c.4 Overview of designations and other landscape initiatives

The above initiatives and studies have been used to provide an overview of the character of the coasts and seas and UK at a scale appropriate to help inform the SEA. The following sections provides an overview of designated areas and wider landscape and seascape character as defined in regional scale considerations where these are available. A detailed overview of the content of each of the character area descriptions is beyond the scope of this section, and the full content of each of the character areas identified has been used, inter alia, as the baseline for this SEA. NCAs in England were selected on the basis of having any component of the "land with sea views" layer (after MMO 2014a). Given that many of these areas extend some distance inland and outside the visible distance of the coast, the selection (as shown in Figure A1c.6) is regarded to capture those of most importance. The landscapes of Scotland (not mapped) and Natural Heritage Futures were selected on the basis of these areas having coastal features. Areas relating to the National Landscape Character Assessment for Wales. though not presently widely available, were made available to SEA team during the drafting of the SEA<sup>12</sup>. The seascape character areas as shown in Figure A1c.4 were also consulted. though national coverage is lacking. The former studies of CCW (2008a, b) and Scott et al. (2005) have also been used to inform this SEA.

# A1c.5 Features of Regional Sea 1

The following provides a brief overview of the coast covered by Regional Sea 1 and has been informed by the initiatives mentioned in Section A1c.2. Major statutory and non-statutory designations are shown in Table A1c.1 and Figure A1c.7.

Regional Sea 1 has a varied landscape and seascape, ranging from the dramatic coastlines of Shetland with fjords, arches, stacks, beaches and tombolos and low-lying Orkney, to the wide and open landscape of Caithness and extensive moorland and mountains of Ross. Further south, the Moray Firth has a diverse range of cliffs, rocky shores and sandy bays, with sheltered inner firths backed by large-scale forestry plantation. Landscape designations are sparse in the north east, restricted to the Dornoch Firth National Scenic Area (NSA). The area of Banff and Buchan is low-lying and agricultural, and from here and to the south, there are major port facilities at Peterhead, Aberdeen and Dundee. The Firths of Tay and Forth have varied coasts which include beaches, dunes, golf courses and more industrialised uses including power stations and petrochemical plants. The Lothian and Borders area has a coastline of cliffs, sandy and rocky shores, with numerous cultural influences including small fishing ports and harbours, promontory forts and castles, Victorian seaside resorts.

The Northumberland section of the coast is low-lying and undeveloped in the north, having an Area of Outstanding Natural Beauty (AONB) designation. The coast becomes progressively more urban and industrial further south, and includes the modern city of Newcastle-upon-Tyne. The area includes historic landmarks such as St Mary's lighthouse and Tynemouth Priory, and also the heavily modified Tynemouth estuary. To the south, the Durham coast is dramatic, with exposed cliffs of limestone and boulder clay, alternating series of small, sheltered bays and headlands. The area is also recognised as a Heritage Coast, having been transformed following restoration from despoiling caused by former colliery waste dumping. The coast becomes more rural and less industrial to the south, with Jurassic sandstones, mudstones and limestone forming a dramatic coastal landscape of high cliffs, high vegetated maritime slopes, and small coves and bays which characterise the North Yorkshire coast. The area includes

<sup>&</sup>lt;sup>12</sup> See: LUC (2015) to see a map of the National Landscape Character Areas, and also their relationship with the Wales Marine Character Areas.

coastal towns and fishing villages, and scattered towns and villages. To the south, the coastal form becomes dominated by the chalk cliffs of Flamborough Head.

Table A1c.1: Relevant landscape conservation designations in Regional Sea 1

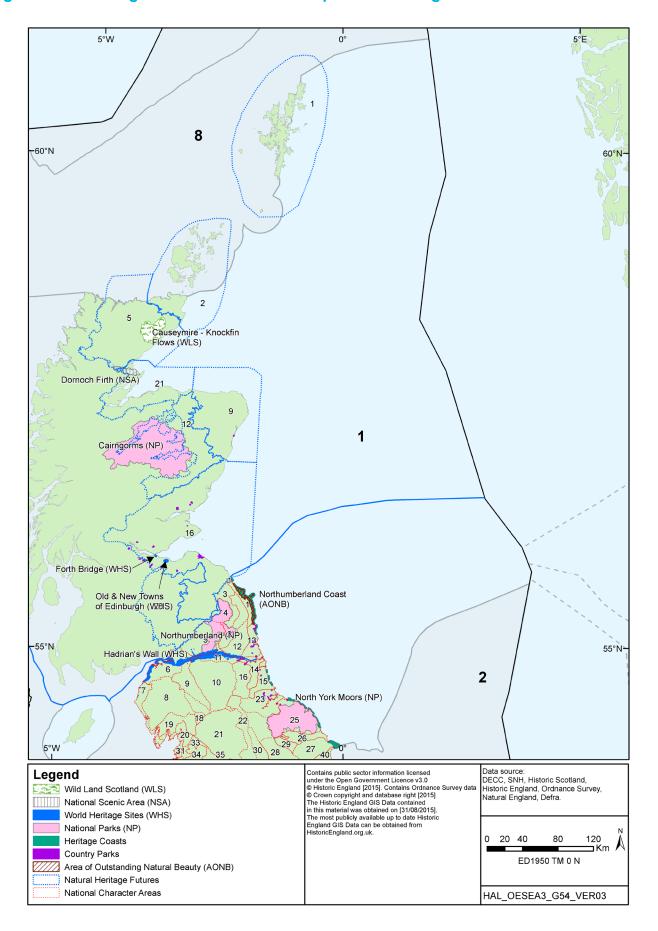
Site name	Designation type	Summary
	турс	Scotland
Dornoch Firth	NSA	The Dornoch Firth exhibits a surprising variety of landscapes: to the east there is expansiveness where offshore views lead out to sea and a limitless horizon which contrasts with the west where there is a sinuous firth and a sense of enclosure, where inland views are bounded by opposing shores against a backcloth of hills. The firth itself, with its innumerable bays, sands, flats, shallows and promontories presents a constantly changing scene.  A horizon of wilder hills contrasts markedly with the mosaic of farms and woods on the coastal flats, and the interplay of open ground, trees and woods results in a landscape mosaic of great beauty. The firth lacks
		major industry and possesses great tranquillity.
Cairngorms	NP	The Cairngorms National Park has a large mountain range at its centre with diverse communities around it, covering an area of 4,528 km². It is home to 18,000 people and 25% of Britain's threatened species. It includes unique mountainous areas of wild land, moorlands, forests, rivers, lochs and glens. Natura 2000 sites cover 49% of the park and 25% is designated as a SSSI.
Old & New Towns of Edinburgh Criteria: ii and iv	WHS	Edinburgh has been the Scottish capital since the 15 <sup>th</sup> century. It has two distinct areas: the Old Town, dominated by a medieval fortress; and the neoclassical New Town, whose development from the 18th century onwards had a far-reaching influence on European urban planning. The harmonious juxtaposition of these two contrasting historic areas, each with many important buildings, is what gives the city its unique character.
The Forth Bridge Criteria: i and iv		The Forth bridge, was the world's earliest great multispan cantilever bridge, and at 2,529 m remains one of the longest. It opened in 1890 and continues to carry passengers and freight. Its distinctive industrial aesthetic is the result of a forthright and unadorned display of its structural components. Innovative in style, materials and scale, the Forth Bridge is an important milestone in bridge design and construction during the period when railways came to dominate long-distance land travel.
		England
Northumberland Coast North Northumberland	AONB HC	Stretches from Berwick-upon-Tweed to Amble. A low-lying coast with long views. Coastal dunes are broken by low rocky headlands and coves of Whin Sill basalt. The dunes marshes and mud-flats are important for their waterfowl and are recognised in conservation designations (e.g. Northumbria Coast SPA). The coast is largely undeveloped and a lack of coastal infrastructure contributes to its remoteness, though tourist
Durham		pressure is rising.  Stretches between Tyne and Wear and Teesside, characterised by magnesian limestone grasslands cliffs, pebble and sandy beaches. Designated in 2001 after a substantial transformation of the coastline following a legacy of colliery waste dumping. The area has renewed tourist potential.
North Yorkshire & Cleveland		The seaward edge of the North York Moors National Park. High cliffs cut by bays characterise the coast. The area is a SSSI and is of special geological interest.
Flamborough Head		Probably the finest line of chalk cliffs in the country, rising at Bempton to 130 metres. Clay and chalk geology home to a distinct flora and a gannet colony.
North York Moors	NP	Holds the largest expanse of heather moorland in England. Red pantile roofs and sandstone give the cottages of the park a distinctive character.

Site name	Designation type	Summary
Northumberland		The National Park stretches from Hadrian's Wall through the valleys of Tyne and Rede to the Cheviot Hills on Scotland's border.
Frontiers of the Roman Empire: Hadrian's Wall	WHS	Hadrian's Wall was built on the orders of the Emperor Hadrian <i>ca</i> . AD 122 at the northernmost limits of the Roman province of Britannia. It is a striking example of the organization of a military zone and illustrates the defensive techniques and geopolitical strategies of ancient Rome.
Criteria: i, iii & iv		

Key: AONB=Area of outstanding Natural Beauty, HC=Heritage Coast, NP=National Park, NSA=National Scenic Area, WHS=World Heritage Site, criterion i: to represent a masterpiece of human creative genius; ii: to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design; iii: to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared; iv: to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history

Sources: SNH website http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-UNESCO designations/nsa/special-qualities/ (accessed: 23/12/15), world heritage site website: http://www.landscapesforlife.org.uk/, http://whc.unesco.org/en/statesparties/gb (accessed: 11/11/15), http://www.nationalparks.gov.uk/

Figure A1c.7: Designated and other landscape areas in Regional Sea 1



# A1c.6 Features of Regional Sea 2

The following provides a brief overview of the coast covered by Regional Sea 2 and has been informed by the initiatives mentioned in Section A1c.2. Major statutory and non-statutory designations are shown in Table A1c.2 and Figure A1c.8.

The chalk cliffs of Flamborough Head falls away to the flatter Holderness coast, characterised by generally low sand and glacial till cliffs which are being quickly eroded. The area has fragmented, remnant semi-natural carr, swamp and moist grassland environments, and is lightly settled. Numerous caravan sites maintain clifftop positions. Holderness terminates at the Spurn peninsula (which is also a Heritage Coast), which comprises a low sand and shingle spit, inland and south of which the Humber Estuary opens, containing internationally important mudflats, wetland and coastal habitats, but also the industrial influences around Hull and the south bank. The Lincolnshire coast to the south of the Humber contains vast areas of mudflats, major dune systems (such as at Gibraltar Point), but also extensive lengths of artificial sea defences, with larger settlement concentrated on the coast which include resort towns, and also holiday resorts and caravan parks. Both onshore and offshore wind farms are visible in this area of coast.

The area of the Fens and The Wash are low lying, the former often below sea-level, being largely reclaimed peatland drained between the 17<sup>th</sup> and 19<sup>th</sup> centuries. The Wash contains significant saltmarsh and mudflats, along with internationally important populations of seals, waders and wildfowl. On the south side of The Wash, cliffs provide views across to Skegness in the Lincolnshire Coast and Marshes. A distinctive scarp slope separates a low west-east trending Chalk escarpment from the coast and inland the landscape is rolling and arable with remnant heath and mixed woodland. This landscape continues along the North Norfolk Coast, where low-lying intertidal sand and mudflats, sand dunes, shingle beaches, saltmarsh, reed beds, tidal creeks and harbours are backed by rural, arable land, but with a significant tourist industry.

Further around the Norfolk Coast, the Broads are an area of fen and marsh surrounding an artificial channel system dating back to the Medieval period, which is also a National Park. The Suffolk coast extends in a narrow band of shingle and sand, with estuaries, mudflats, marshes and arable land dominating its southern extent. Built features are various and includes Sizewell power stations and associated cables and pylons in an otherwise undeveloped section of coast. The greater Thames Estuary is defined by estuaries, mudflats and broad tracts of tidal salt marsh and sand and shingle beaches set in an area with few large settlements. The area of Kent set between the Thames Estuary in the north and Kent Downs in the south is open, low and agriculturally productive. The coast contains chalk cliffs at Thanet and Pegwell Bay, sand dunes (e.g. at Sandwich Bay) as well as shingle beaches and saltmarsh. The coast is heavily developed around Margate, Broadstairs and Ramsgate with tall buildings, tower blocks and power stations.

Offshore, the seascapes range from open expansive areas with few surface features such as Dogger Bank, to areas which are characterised by human activities which include gas field infrastructure and associated vessel movements, and more recently, offshore wind farms. There are strong associations with the fishing industry including around the Dogger Bank, and the potting which takes place off Holderness, and almost every coast is influenced by a relatively dense concentration of shipping, which in some areas such as the Thames, is formalised into designated routes. The area also has strong historical associations going back to the prehistoric occupation of the southern North Sea, to the more recent defence of Britain during World War 1 and 2, and the associated coastal defence structures and aviation and maritime losses.

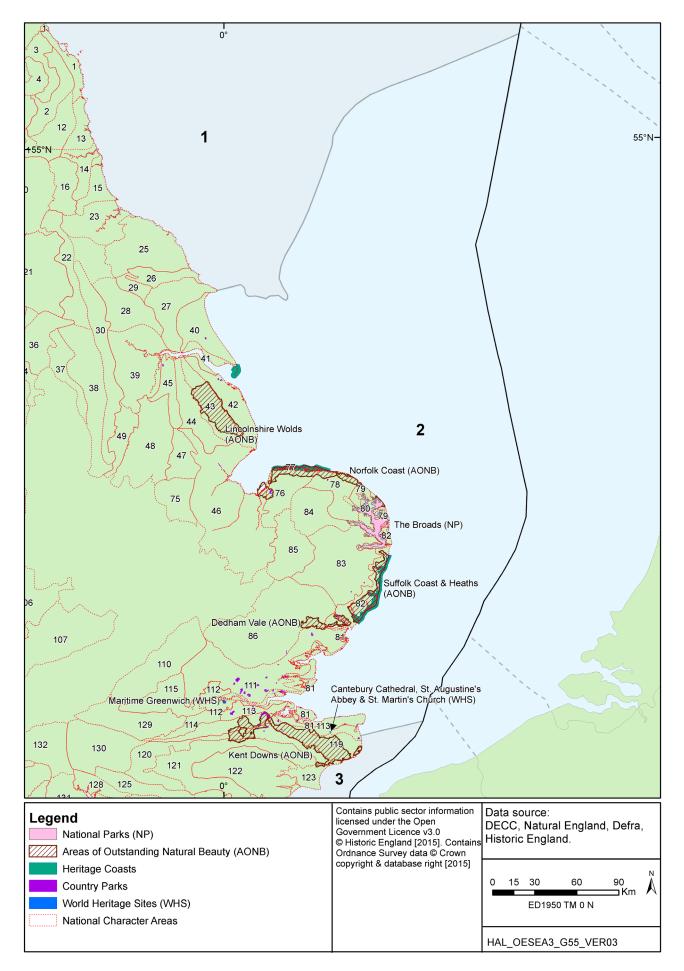
Table A1c.2: Relevant landscape conservation designations in Regional Sea 2

Site name	Designation type	Summary
Norfolk Coast	AONB, HC	Consists of sand and mud flats, dunes, shingle, saltmarsh, reedbeds and grazing marsh in addition to soft, eroding cliffs of glacial sands and gravels east of Weybourne and the farmland, estates and woodland of the coastal hinterland, with important areas of heathland.
Suffolk Coast and Heaths	AONB, HC	A mosaic of different habitats: farmland, heathland, ancient woodland, commercial forestry, reed beds, estuaries, grazing marsh, small towns and villages, low crumbling cliffs and shingle beaches.
Kent Downs	AONB	This area includes the southeast's outcrop of chalk. Dip slopes and dry valleys of the chalk ridge are of wildlife importance and include unimproved grassland, scrub communities and broadleaved woodland. Kentish hop gardens, orchards and historic parklands are also important features.
Dedham Vale		This area includes an exceptional lowland river valley, which is characterised by hedged water meadows, copses and riverbank willows. An exceptional example of pastoral land.
Lincolnshire Wolds		A dissected chalk tableland sloping gently to the east, the abandoned chalk pits and grasslands provide areas for rare plants and insects. Mixed managed woodland includes oak, ash and coppiced hazel.
Spurn	HC	This area comprises the curving hook of shingle and sand which makes up the tip of the eastern part of the mouth of the Humber and is home to many migratory bird species in spring and autumn.
The Broads	NP	This area was designated under its own Act of Parliament in 1989. The broads consist of peat-pits dug in the medieval period, connected to interior lakes by dykes, allowing lock-free navigation. Fen and carr woodland and drained marshland are characteristic of the area.
Maritime Greenwich Criteria: i, ii, iv, vi	WHS	Symmetrically arranged alongside the River Thames, the ensemble of the 17 <sup>th</sup> century Queen's House, part of the last Royal Palace at Greenwich, the palatial Baroque complex of the Royal Hospital for Seamen, and the Royal Observatory founded in 1675 and surrounded by the Royal Park laid out in the 1660s by André Le Nôtre, reflects two centuries of Royal patronage and represents a high point of the work of the architects Inigo Jones (1573-1652) and Christopher Wren (1632-1723), and more widely European architecture at an important stage in its evolution. It also symbolises English artistic and scientific endeavour in the 17 <sup>th</sup> and 18 <sup>th</sup> centuries.
Canterbury Cathedral, St Augustine's Abbey, and St Martin's Church Criteria: i, ii, vi		Christ Church Cathedral Canterbury in Kent, South East England, a breath-taking mixture of Romanesque and Gothic architecture, has been the seat of the spiritual head of the Church of England for nearly five centuries. Following the murder of Archbishop Thomas Becket in 1170 AD and his subsequent canonisation it became a place of pilgrimage. St Martin's church and the ruins of St Augustine's Abbey form the other main elements of the Property.

Key: AONB=Area of outstanding Natural Beauty, HC=Heritage Coast, NP=National Park, WHS=World Heritage Site, criterion i: to represent a masterpiece of human creative genius; ii: to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design; iv: to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history; vi: to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria).

Source: <a href="http://www.landscapesforlife.org.uk/">http://www.nationalparksengland.org.uk/</a>, UNESCO world heritage site website: <a href="http://whc.unesco.org/en/statesparties/gb">http://whc.unesco.org/en/statesparties/gb</a> (accessed: 11/11/15)

Figure A1c.8: Designated and other landscape areas in Regional Sea 2



# A1c.7 Features of Regional Sea 3

The following provides a brief overview of the coast covered by Regional Sea 3 and has been informed by the initiatives mentioned in Section A1c.2. Major statutory and non-statutory designations are shown in Table A1c.3 and Figure A1c.9.

The cliffs of Dover characterise the east of Regional Sea 3, rising to some 240m in height, and characterises the coastal section of the Kent Downs AONB – the Dover-Folkestone and South Foreland Heritage Coasts include sections of the cliffs, being the first of such sites to be designated. To the west, mudflats, sand-dunes, and shingle ridges of Dungeness characterise the coast, along with the Dungeness nuclear power station situated in the south of the feature. The High Weald AONB is largely located inland, but meets the coast at Hastings, and includes eroded sandstone and clay cliffs at Fairlight. The South Downs National Park meets the coast at Beachy Head and the Seven Sisters, which also coincides with the Sussex Heritage Coast.

The area between Brighton and Southampton comprises an intensively farmed, open, flat coastal plain, and inlets contain a diversity of features including tidal creeks, mudflats, shingle beaches, dunes, grazing marshes and paddocks. The area includes the Chichester Harbour AONB and includes intervisibility with aspects of the Isle of Wight AONB and New Forest National Park. The areas of Chichester and Langstone Harbour, Pagham Harbour, The Solent and Southampton Water are both natural harbours and also contain internationally important conservation sites for habitats and bird species. The area has strong maritime associations of sailing, boat building and fishing.

The Isle of Wight is a small island encompassing many features of the mainland southern English coast. Wooded dairy pastures and arable farming meet the coast at steep chalk cliffs, stacks and estuarine seascapes, with salt marsh, mudflats and creeks, which are numerous on the north coast. Coastal "chines" are a unique feature of the area.

To the west, population is centred on the Poole-Bournemouth conurbation. The Dorset AONB covers an extensive area, and includes the Purbeck Heritage Coast and the East Devon and Dorset World Heritage Site. The latter site, also known as the Jurassic Coast, is geologically important, being the only World Heritage Site in England to be selected on the basis of it natural features. It also includes distinctive features such as Durdle Door and Lulworth Cove. The western extent of Regional Sea 3 is characterised by Lyme Bay. In the east, the area includes the extensive shingle beach of Chesil which connects the mainland to the Isle of Portland by a shingle tombolo, also acting as a barrier beach for the brackish lagoon of The Fleet. In the north of the bay, the Blackdowns contain a distinctive coastal landscape of erosional cliffs interrupted by a small number of estuaries (e.g. the Axe) with associated saltmarsh and shingle ridges. Settlement characterises the coast in the west, including Exmouth and also the towns of Tor Bay (e.g. Torquay) which are extremely popular tourist destinations. The westernmost extent of Regional Sea 3 terminates at the headland of Start Point.

Offshore, the character of Regional Sea 3 is heavily influenced by maritime culture, from the intensive shipping channels of the Dover Strait and central English Channel, to the sheltered area of the Solent which is commercially important and also attracts a large number of recreational users, has a high number of yacht clubs and marinas and attracts international sailing events. Numerous wrecks record the treacherous nature of some waters, and also losses during the last two world wars.

-

<sup>&</sup>lt;sup>13</sup> Steep sided river valleys where the river flows through coastal cliffs to the sea (<a href="http://www.iwchines.org.uk/">http://www.iwchines.org.uk/</a>)

Table A1c.3: Relevant landscape conservation designations in Regional Sea 3

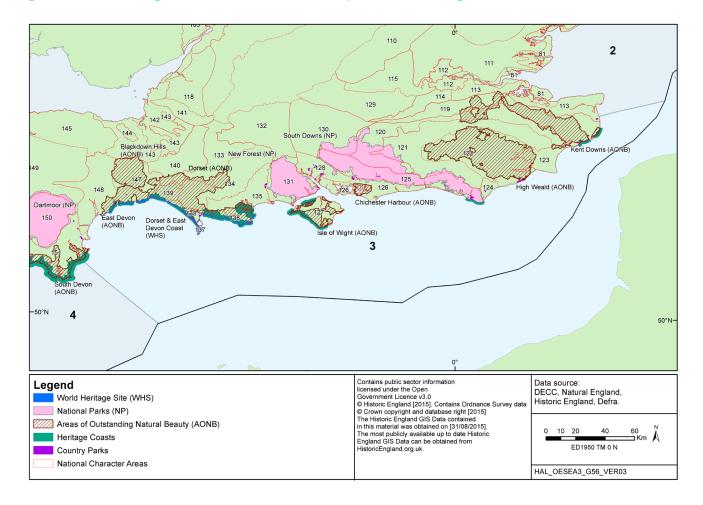
Site name	Designation type	Summary
Isle of Wight		There are five separate areas of land across the island constituting the AONB, representing different attributes of the island. These include: chalk and sandstone cliffs, saltmarsh and mud-flats, chalk farmland, wooded dairy pasture, heathland, hay meadows and distinctive 'chines'.
Chichester Harbour		Features range from tidal inlets and creeks, salt-marsh, intertidal mudflats, orchards and historic harbour settlements with a distinctive vernacular. The tidal flats and saltings in the area are extensive, and host wildfowl, waders and a rich plant and invertebrate diversity.
High Weald		Much of this AONB is located inland and consists of a hilly area of ridges and valleys with the highest proportion of ancient woodland in the country. The area meets the sea at Hastings. The built environment is characterised by brick, tile and weatherboard houses, oasthouses, and traces of the Wealden iron industry.
Kent Downs		The area meets the coast at the prominent cliffs of Dover and extends inland behind the Weald to an elevation of 240m. This AONB includes unimproved chalk grassland, scrub and broadleaved woodland communities. Orchards, hop gardens, horticulture and arable farming, ancient lanes and historic parklands all add to the visual amenity of the area.
Dorset		The Dorset AONB is underpinned by a curving chalk ridge which runs from the upland Axe, east to the Stour Valley and a southern section circles Dorchester and reaches the Isle of Purbeck. The area has downland and heath the likes of which are now diminished in southern England.
East Devon		East Devon, from Lyme Regis to Exmouth, is characterised at the coast by red sandstone cliffs, broken by chalk at Beer Head. Inland the area rises to a high flat plateau incised by the rivers Axe, Sid and Otter.
Blackdown Hills		The Blackdown Hills are best known for the dramatic, steep, wooded scarp face they present to the north. To the south the land dips away gently as a plateau, deeply dissected by valleys. On top of the plateau there are wide open windswept spaces; in the valleys nestle villages and hamlets surrounded by ancient and intricate patterns of small enclosed fields and a maze of winding high-hedged lanes.
South Devon		The South Devon AONB stretches from Torbay to the outskirts of Plymouth. The coast ranges from cliffs (Bolt Head), sandy beaches (Slapton Sands) and wooded estuaries (Dart, Kingsbridge) and some of Britain's best ria coastline.
New Forest	NP	Ancient woodland, bog, heathland and unspoilt coastline with views of the Solent and Isle of Wight. The area uniquely supports a medieval forest and pastoral system. The National Park is of nature conservation interest in addition to being a working and recreational landscape.
South Downs		The South Downs was formally designated in 2009. The National Park reaches the coast in its eastern extent in east Sussex at Beachy Head and the Seven Sisters between Seaford and Eastbourne, and also for a stretch to the east of Brighton.
Dartmoor		Dartmoor consists of two, high, boggy plateaux divided by the River Dart. Surrounding them is rocky land which has dramatic stone outcrops (tors). The softer river valleys, with their ancient clapper bridges, provide a contrast to the stark magnificence of the moors. There are many standing stones, Bronze and Iron Age hut circles and hillforts as well as tin mining remains. The last mine closed in 1939.
Purbeck	HC	The area ranges between Poole Harbour and Studland. The area includes excellent examples of chalk and limestone cliffs.
Hamstead		Contains the drowned estuary of Newtown River. The area includes saltmarsh and mudflats which harbour overwintering birds. The clay and limestone cliffs are rich in fossils unique to this area of Britain.
Tenyson		This area includes 'The Needles', high chalk cliffs and 'chines' (steep chalk gullies) unique to the Isle of Wight.
Sussex		Comprises the eastern end of the South Downs, terminating at the coast in the chalk cliffs of Beachy Head and the Seven Sisters.
Dover- Folkestone		7.2km in length, the area encompasses a section of the white chalk cliffs at Dover and part of the Saxon Shore Way.

Site name	Designation type	Summary
South Foreland		Includes a section of the white cliffs of Dover and the Saxon Shore Way along St Margaret's Bay. Covers 6.9km from Dover to Kingsdown near Deal.
South Devon		The coastal scenery includes reedbeds, sand dunes, shingle ridges, mud flats, salt marshes, and the freshwater lake of Slapton Ley National Nature Reserve.
East Devon		Red sandstone cliffs with pebble beaches contrast markedly with the white chalk cliffs which outcrop at Beer. The coast forms part of Britain's longest national trail, the 'South West Coast Path'. Tourist pressures have made screening and landscaping of facilities an important management issue.
West Dorset		This area includes the vast shingle beach at Chesil, which forms a tombolo at its eastern end, joining the island of Portland to the mainland.
Dorset and East Devon Coast Criteria: viii	WHS	Known as The Jurassic Coast, this site covers over 150km of coastline from East Devon to Dorset, with rocks recording 185 million years of the Earth's history, and is the only World Heritage Site in England to be selected on the basis of it natural features. The site includes a number of other designations such as the East Devon AONB, West Dorset Heritage Coast, as well as a number of SSSIs and numerous Geological Conservation Review sites related to both the coastal geomorphology of the area and underlying geology, including Jurassic-Cretaceous Reptilia.

Key: AONB=Area of outstanding Natural Beauty, HC=Heritage Coast, NP=National Park, WHS=World Heritage Site, criterion viii: 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

Source: <a href="http://www.landscapesforlife.org.uk/">http://www.landscapesforlife.org.uk/</a> (accessed 22/12/15), <a href="http://www.nationalparksengland.org.uk/">http://www.nationalparksengland.org.uk/</a> (accessed (22/12/15))

Figure A1c.9: Designated and other landscape areas in Regional Sea 3



# A1c.8 Features of Regional Seas 4

The following provides a brief overview of the coast covered by Regional Sea 4 and has been informed by the initiatives mentioned in Section A1c.2. Major statutory and non-statutory designations are shown in Table A1c.4 and Figure A1c.10.

The area of south Devon is characterised by large wooded rias which extend inland and contain extensive mudflats and saltmarsh, and elsewhere there are sand and shingle beaches and cliffs of sandstone and slate which make up the headlands of Start Point, Prawl Point, Bolt Tail and Bolt Head. The area of the Lizard is surrounded by a coastline of cliffs and coves, with several fishing villages retaining their old character of white-washed buildings with slate or thatch roof. The northern extent of the Lizard (which is also an AONB) includes Tintagel and St Agnes Head, and the southern coast is indented by the oak-fringed estuaries of the Fal, Fowey and Helford Rivers. Much of the Cornish coast consists of an undulating plateau utilised for mixed farming, and numerous broadleaved valleys which are narrower in the north than the south where they meet the sea as rias with wide estuaries. The coast is typically formed by steep cliffs up to 100m in height with little access to the sea and broad sandy bays, particularly in the north which has numerous dramatically sited ruins from 19<sup>th</sup> century mining buildings to Tintagel Castle, which contrasts strongly with the more sheltered south coast. In the west, the Cornwall and West Devon Mining Landscape World Heritage Site contains a number of 18<sup>th</sup> and 19<sup>th</sup> century mining sites, which in some cases remains largely intact.

Offshore to the south west, the Isles of Scilly are low-lying, largely treeless and windswept. Coastlines range from sandy beaches, sand dunes, distinctive granite tors, coastal heaths and grasslands. The islands have been settled since prehistoric times and there is an extensive Bronze Age record.

The Exmoor coast includes a complex coastline of headlands, cliffs and coves which border the Bristol Channel. Offshore, Lundy is a small, isolated granite island which is a prominent landmark when viewed from the mainland. The island consists of a relatively flat plateau with steeply sloping sides which provides unobstructed views of the sea.

The expansive funnel-shaped Severn Estuary sits at the mouth of four major rivers (the Severn, Wye, Usk and Avon), and is strongly characterised by its tidal regime, the range of which is the second largest in the world and includes the Severn Bore feature. The shore is largely defined by extensive tidal flats, and there is a long history of coastal reclamation such as at the Gwent and Wentlooge levels. Along with the southern North Sea, the Bristol Channel has strong archaeological associations, having a long settlement history and likely being formerly settled during periods of reduced sea-level. The northern coast of the Severn includes a series of bays (Swansea, Carmarthen and Milford Haven on the Pembrokeshire coast. The coast varies between large settlements such as Swansea, and also Llanelli, Neath and Port Talbot with associated heavy industry, to the rugged coastline of cliffs and sandy bays of the Gower and Helwick Coastal. The Gower coast became the first AONB in 1956, and includes a number of spectacular views including Rhossili Bay, Three Cliffs Bay and Worms Head. western extent of Regional Sea 4 includes part of the Pembrokeshire Coast National Park and Heritage Coast, the southern edge of which includes sections, steep cliffs, arches and stacks interspersed with small coves, scalloped bays and sandy beaches.

Table A1c.4: Relevant landscape conservation designations in Regional Sea 4

Site name	Designation type	Summary
Gwyr AoHNE	AONB	The area varies from Carboniferous limestone scenery at Worms Head and Oxwich Bay to the salt-marshes and dune systems in the north. Heath, grassland, fresh and saltwater marshland, dunes and oak woodland provide a varied landscape.
Wye Valley		This AONB reaches substantially inland from the coast. Riparian limestone scenery is made up of sheer wooded cliffs as the river has cut down into the rock. Open valley reaches with rounded hills and bluffs make up much of the intervening countryside.
Mendip Hills		The area has Britain's most southerly example of Carboniferous limestone scenery, with gorges, dry valleys and sink holes being prominent features - Cheddar Gorge and Wookey Hole Caves being excellent examples of such features.
Quantock Hills		The area runs north-west from the Vale of Taunton Deane to the Bristol Channel coast. The ridge which makes up this area is surrounded by an agricultural plain, and has elements of heathland and sessile oak which are diminished in southern England.
North Devon		An area of cliff scenery reaching inland to take in the cliff top plateau around Hartland. Valleys come down to the coast, truncated by cliffs often terminating in waterfalls. The area also includes the dune systems at Braunton Burrows on the Taw and Torridge Estuary.
Cornwall		Includes Lands End and the Lizard Peninsula. The northern area includes Tintagel and St Agnes Head, and some of the highest cliffs in Britain. The south coast is less dramatic and is indented by the oak-fringed estuaries of the Fal, Fowey and Helford Rivers. The Camel Estuary, Bodmin Moor and heath plateau of the Lizard and Penwith moorland all feature in this AONB.
South Devon		The South Devon AONB stretches from Torbay to the outskirts of Plymouth. The coast ranges from cliffs (Bolt Head), sandy beaches (Slapton Sands) and wooded estuaries (Dart, Kingsbridge) and some of Britain's best ria coastline.
Exmoor	NP	The moorland plateau terminates with the tallest cliffs in England, overlooking the Bristol Channel coast. Inland, the grass moorland of the former Royal Forest is surrounded by heather-covered moors, intersected by round-sided combes. Lynton and Lynmouth form the largest settlement, and have traditional stone and slate buildings which contrast with more ornate Victorian structures. The Vale of Porlock villages have colour-washed cob, stone and thatched cottages. Bronze Age burial mounds and stone circles, Iron Age hillforts, Roman fortlets, medieval castles, bridges, farmsteads, and unique rural industrial sites are preserved within the agricultural and moorland landscape.
Dartmoor		Dartmoor consists of two, high, boggy plateaux divided by the River Dart. Surrounding them is rocky land which has dramatic stone outcrops (tors). The softer river valleys, with their ancient clapper bridges, provide a contrast to the stark magnificence of the moors. There are many standing stones, Bronze and Iron Age hut circles and hillforts as well as tin mining remains. The last mine closed in 1939.
Brecon Beacons		The Brecon Beacons is a remote part of Wales with contrasting woodlands, reservoirs, waterfalls, caves and windswept uplands. The area supports a diverse array of natural and cultural heritage features and provides recreational access. A section of the park is part of the European Geopark network, which aims to preserve geological heritage.
Pembrokeshire		The coast varies from the upland area of Carningli, Newport, in the north to the cliffs and broad sandy beaches of St Brides Bay, which span between the islands of Ramsey and Skomer. Further south Carboniferous limestone plateaus are present on the Castlemartin Peninsula. North of the peninsula, Daugleddau Estuary is a sheltered, wooded, deep water harbour which forms the area of Milford Haven.

Site name	Designation type	Summary
Exmoor	HC	Managed within the Exmoor National Park, the area includes England's highest sea cliffs interspersed with wooded 'combes' dominated by oak, which reach right down to the shore which is lined by a pebble beach.
St David's Peninsula		This area stretches for 80km of the Pembrokeshire coast from St Bride's Bay to Fishguard. The coast is varied but mainly consists of cliffs and small bays backed by sandy beaches, for instance at Whitesands Bay.
St Bride's Bay		An area of high cliffs and broad sandy beaches (e.g. Broad Haven, Newgate, Druidston Haven) between St David's and Marloes headlands.
North Devon		Sand and sand dunes, open-cliffed headlands, softer wooded cliffs and several villages characterise this coastline which is part of the North Devon AONB. The coastline forms part of the South West Coast Path, Britain's longest National Trail.
Lundy		A massive granite island with rugged 120m cliffs. The island is host to a vast seabird colony.
Hartland		At 48km long this area includes sections of both Devon and Cornwall. Sheer cliffs, reefs and waterfalls descending from hanging valleys characterise the coast, with views as far as Lundy Island.
Pentire Point- Widemouth		These sections of heritage coast are modified by storms which have attributed to dramatic coastal erosion in the formation of blowholes, stacks and caves.
Trevose Head		Lighthouses and redundant mine chimneys around St Agnes indicate historically
St Agnes		recent anthropogenic activity at the coast
Godrevy- Portreath		
Penwith		An area characterised by heath topped cliffs and promontories which include redundant mine chimneys backed by small field enclosures with stone walls.
Isles of Scilly		A heritage coast of extreme variety, the coast has cliff as well as beach and sand dune environments, the interior consist of a bare heathland plateau. The islands are home to rare migratory bird species, as well as a rare flora contained in sub-tropical gardens. Lagoons between the islands are warm and clear, and home to seals and porpoise.
The Lizard		Green serpentine rock supports a rare heathland habitat. Small coves, beaches and fishing villages are scattered along the coast.
The Roseland		A gentle coastline dominated by cliffs with coastal heath and scrub, and small sandy bays broken by rocky areas such as Dodman and Chaple Points.
Gribbin Head- Polperro		Steep sloped, wooded valleys reach the coast, defined by the Fowey Estuary. The picturesque harbours of Fowey and Polperro nestle on steep slopes at the mouth of wooded valleys.
Rame Head		Lies on the western tip of the entrance to Plymouth Sound. A treeless conical headland which has a wooded, sheltered east side and an exposed west side.
South Devon		The coastal scenery includes reedbeds, sand dunes, shingle ridges, mud flats, salt marshes, and the freshwater lake of Slapton Ley National Nature Reserve.
Cornwall and West Devon Mining Landscape Criteria: i, iii, iv	WHS	This designation consists of a number of sites of 18 <sup>th</sup> and 19 <sup>th</sup> century mining heritage, signifying the variations in mining technology and related impacts which occurred over time. During the expansion of mining, infrastructure and settlements rapidly expanded in what was prior to this, a very rural landscape, which in many areas generated wholesale landscape change. In some areas evidence of this change survives essentially intact and it is possible to visualise how these areas looked and functioned a century and more ago.

Key: AONB=Area of outstanding Natural Beauty, HC=Heritage Coast, NP=National Park, WHS=World Heritage Site, criterion i: to represent a masterpiece of human creative genius; iii: to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared; iv: to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history

Source: <a href="http://www.landscapesforlife.org.uk/">http://www.landscapesforlife.org.uk/</a> (accessed 22/12/15), <a href="http://www.nationalparksengland.org.uk/">http://www.nationalparksengland.org.uk/</a> (22/12/15), <a href="http://whc.unesco.org/en/list/">http://www.nationalparksengland.org.uk/</a> (22/12/15), <a href="http://whc.unesco.org/en/list/">http://www.nationalparksengland.org.uk/</a> (22/12/15), <a href="http://whc.unesco.org/en/list/">http://www.nationalparksengland.org.uk/</a> (22/12/15), <a href="http://whc.unesco.org/en/list/">http://whc.unesco.org/en/list/</a> (accessed 22/12/15)

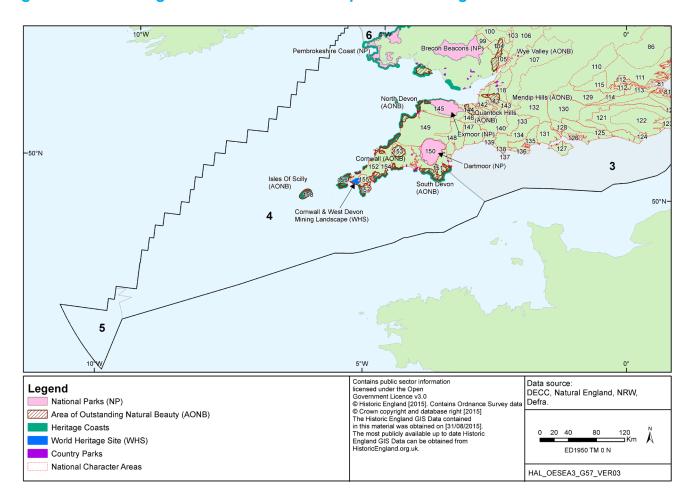


Figure A1c.10: Designated and other landscape areas in Regional Sea 4

# A1c.9 Features of Regional Sea 6

The following provides a brief overview of the coast covered by Regional Sea 6 and has been informed by the initiatives mentioned in Section A1c.2. Major statutory and non-statutory designations are shown in Table A1c.5 and Figure A1c.11.

The southernmost extent of Regional Sea 6 includes the northern most part of the Pembrokeshire coast and related National Park and Heritage Coast, and further north the area of Cardigan Bay contains exposed rugged cliffs, rocky headlands, small coves and estuaries, and includes a number of Heritage Coasts. Promontory forts on headlands and Norman castles attest to a historical association with defence in addition to maritime trade and shipbuilding. Aberystwyth is a centre of activity in the area which is a University town and classic Victorian seaside resort. Some areas of the coast have a strong sense of remoteness and exposure, but this can be broken by periods of live military training. The Wales Coast Path allows access to much of the coast, there are open views out to sea across Cardigan Bay, with views from the south to Snowdonia National Park, Llŷn AONB and Bardsey Island. Llŷn peninsula separates Cardigan Bay from the area of north Wales, formed of erosionally resistant igneous rocks, there are a number of rocky headlands, cliffs and coves, but also localised softer coasts formed of glacial material. The area is sparsely populated, with settlement concentrated on the coast, and there is a significant tourist presence.

Anglesey is an island situated off the North Wales coast, separated by the Menai Strait and connected by two bridges, including the Menai Suspension Bridge. The coastline of the island is complex from sheer cliffs and rocky headlands, to small sandy coves, low lying dunes and estuaries. The island has a striking windswept heathland landscape, but also a number of

coastal settlements relating to former industry including mining and there are a number of prominent manmade landmarks including Beaumaris Castle World Heritage Site, Wylfa Nuclear Power Station and the Aluminium works on Holy Island.

The North Wales coast includes Conwy Bay and Colwyn Bay; limestone hills back the coast which has developed for tourism including planned Victorian seaside resorts (e.g. Llandudno, Colwyn Bay, Rhyl) and more recent less formal development including caravan parks. The coastline is generally engineered (e.g. with groynes and sea walls), but the limestone forms the distinctive Great Orme's Head and Little Orme's Head at Llandudno, which has a natural setting between these headlands. Offshore, commercial shipping is visible, as are other industrial components of seascape including the Douglas field, offshore wind farms and associated navigational markings for shipping lanes and structures. In the east, the Dee Estuary forms a natural border between Wales and England, backed by the rising foothills of the Clwydian Range AONB.

The Wirral separates the Dee and Mersey estuaries, and has a strong urban character to its northern edge and views across to Liverpool. To the north, the Sefton coast is characterised by intertidal sands, silts and muds, dune systems, dune heath and salt marshes along the Ribble Estuary. The Sefton coast remains rural with the exception of Formby, Hightown, Southport and Ainsdale, and golf courses are prominent along the coast. To the north, Morecambe Bay is bound by Fleetwood to the south and Walney Island to the north. The coast consists of shifting intertidal sandflats and saltmarsh backed by low limestone cliffs which rise into hills. Salt marshes, reclaimed marshland, sand and shingle beaches and sandstone cliffs feature at the coast towards the Lune estuary, and Heysham power station and caravan parks characterise the developed areas of the coast, interspersed with pastoral farming. The Arnside and Silverdale AONB stretches inland to the east. The Cumbrian coast includes pasture and agriculture which strongly contrasts with the historically industrial nature of the coast – the Lake District National Park meets the coast approximately between Seascale and Millom.

The Solway has a diverse coast of intertidal mudflats and saltmarshes, raised beaches, dunes, pebble and sandy beaches and has a host to wintering and migrating waders and wildfowl, and further inland raised bogs and lowland mires are of conservation interest and has both AONB and NSA designations. To the north, the Scottish coastline is characterised by the indented coastline of bays with islands of the Stewartry Coast, the low Ayr Plain which has views west across the island-strewn Firth of Clyde and the high coastal moorland of Clyde Muirshiel. The north of Regional Sea 6 reaches Kintyre which provides dramatic views across the sounds to the islands of Arran, Gigha and Islay.

Table A1c.5: Relevant landscape conservation designations in Regional Sea 6

Site name	Designation type	Summary
North Arran	NSA	Arran's northern extent consists of a dissected granitic massif with peaks reaching almost 900m, leaving only a narrow coastal plain where there are raised beaches supporting clachan style settlements.
Nith Estuary		An area of extensive flats unusual to Scotland. The area is enhanced by Criffell, a granite hill rising to 569m and the long well-wooded ridge extending back to Marthrown Hill. The Nith at this point is broad and bordered by open fields, marshes and riverside trees in some places.
Fleet Estuary		Dominated to the west by Cairnharrow (456m), the relief to the east is less pronounced consisting of a ridge ending at Bar Hill, south of Gatehouse. Woodland dominates the valley sides opening into moorland and eventually pasture on lower ground by the riverside.

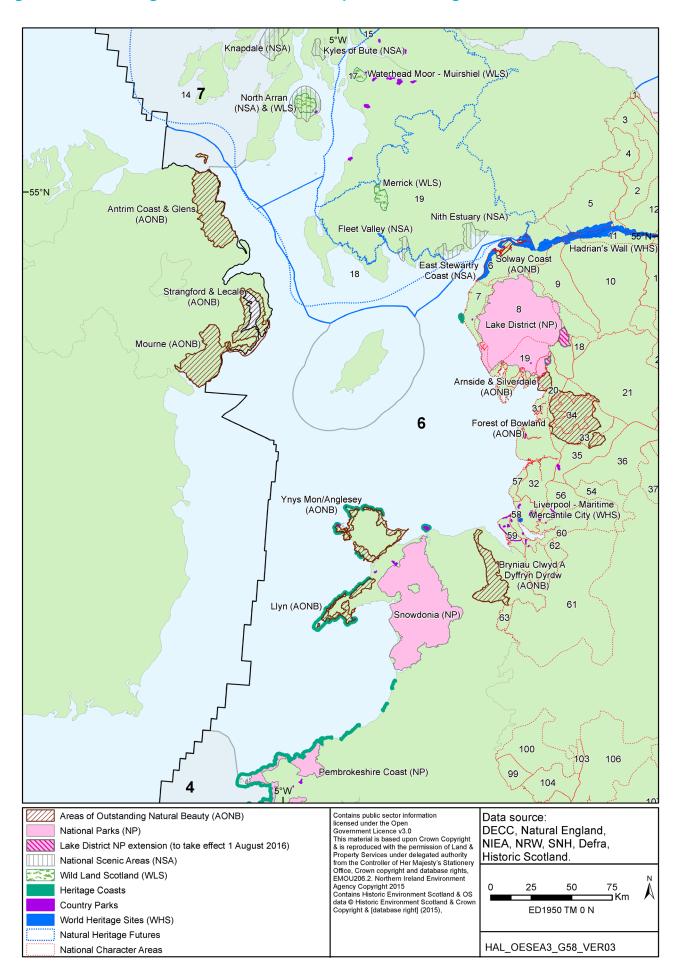
Site name	Designation type	Summary
East Stewartry Coast		The area comprises Auchencairn Bay, Orchardton Bay, Rough Firth, Sandyhills Bay, the Mersehead Sands and their immediate hinterlands. An area characterised by wide tidal flats, dunes, woodland and bays.
Knapdale		A glacially overdeepened landscape now heavily wooded, with a distinctive north-west south-east axis of parallel ridges and glens. Loch Sween has many parallel channels, meeting land at the Forest of Knapdale. This is in contrast to the more open Loch Caolisport. To the north there is moor, meadow and arable land, the meandering River Add and the hills of Dunadd and Cnoc na Moine.
Kyles of Bute		Includes Bute, mainland Cowal and Loch Ruel. The loch is markedly tidal, with mixed woodland shores and frequent rocky outcrops on surrounding hills. There are views to north Bute and mainland hills afford views of the kyles below.
Solway Coast	AONB	Stretching along the Cumbrian shore of the Solway Firth this is a low, open and windswept area with wide views across to the hills of Galloway. Its characteristic feature is a 7.6m raised beach. Siltation has left the foreshore strip with a marine terrace of lowscrub covered cliffs or dunes.
Arnside and Silverdale		Consists of small scale limestone hills and agricultural land sheltered by deciduous woodlands and valleys. A diverse landscape juxtaposing salt marsh, limestone cliffs and reclaimed mosses, with limestone pasture, rock outcrop and limestone pavements at higher altitudes.
Forest of Bowland		Geologically part of the Pennines, this area has a central core of incised gritstone fells and large areas of heather moorland. The fell's fringe of foothills is dissected by 'cloughs', steep-sided valleys which open out into the rich green lowlands of the Ribble, Hodder, Wyre and Lune Valleys.
Ynys Mon AoHNE		Consists of almost the entire Anglesey coast. The designated area includes low ridges and shallow valleys at the coastal plateau, with Holyhead Mountain its highest point at 219m. The east coast has limestone cliffs interspersed with sandy beaches, whereas sand dunes are more prominent to the south.
Llyn AoHNE		A low peninsula consisting of a marine eroded platform with complex geology affording varied coastal landscapes from the steep craggy cliffs around Aberdaron Bay to sandy bays and headlands and fine dune systems. The area also has an upland component in the form of volcanic peaks dominated by the granite crags of Yr Eifl (564m).
Bryniau Clwyd AoHNE		The Clwydian Range is a 35 km long chain of undulating hills rising between the Vale of Clwyd to the west and the Dee Estuary to the east. In the uplands heather moorland dominates, and lower down hedged field and coppice woodland becomes prominent.
Strangford Lough and Lecale		Strangford Lough is an almost landlocked inlet of the sea set within a diverse lowland topography. Within the lough, tips of drowned drumlin hills create a spectacular myriad of islands, while on shore the hills form a pleasant rolling landscape.
Mourne		The twelve peaks in this area include Slieve Donard, which at 850m is Northern Ireland's highest mountain. Mountain slopes descend through moorland, woodland, field and farm before meeting the coast.
Lake District	NP	Much of the lake district consists of moorland and fell. The 16 lakes, the largest of which is Windemere, were formed by glacial meltwater. Around Skiddaw and in the south of the Park there are angular and rounded hills. Neolithic stone circles, like Castlerigg and Roman forts, like Hardknott, reflect Lakeland's long history. Townend at Troutbeck is an example of a local yeoman farmer's house. Former iron workings and more modern slate quarrying have also left their marks. The park will be extended to the south east through a variation due to take effect in August 2016.

Site name	Designation type	Summary
Snowdonia		This is the highest upland area in England and Wales, supporting upland heath and river, wooded valleys and even parts of the Welsh coast. 20% of the area is designated as either a SAC or Ramsar site, in addition to 17 NNRs and 56 SSSIs. The area has remnant features of extensive mining, particularly for slate, in addition to old abandoned agricultural buildings.
Pembrokeshire		The coast varies from the upland area of Carningli, Newport, in the north to the cliffs and broad sandy beaches of St Brides Bay, which span between the islands of Ramsey and Skomer. Further south Carboniferous limestone plateaus are present on the Castlemartin Peninsula. North of the peninsula, Daugleddau Estuary is a sheltered, wooded, deep water harbour which forms the area of Milford Haven.
St Bees Head	HC	The area is formed by a red sandstone cliff which spans between Scotland and North Wales. A cliff edge path forms part of the Cumbria Coastal Way and Wainwright's Coast to Coast Walk. Coastal cliffs rise to 300ft providing excellent views to the north, south and offshore to the Isle of Man.
Ceredigion Coast		Consists of four sections totalling 21 miles of coast, the area includes cliffs which line the coast from Aberystwyth to Borth where an extensive sandy beach extends to the mouth of the River Teifi. Similarly, to the south of Aberystwyth, cliffs dominate the coastal scenery. This heritage coast had its designation extended into the offshore area by 1 mile with the intention of protecting marine heritage through management measures a code of conduct for seafarers and marine and coastal recreational users.
Great Orme		A small peninsula by Llandudno, this heritage coast is relatively undeveloped compared with the surrounding countryside. Rising to 209m, the site comprises cliffs, calcareous grassland, limestone heath, scrub and woodland on lower slopes. Limestone pavement and several scheduled ancient monuments also characterise the Orme.
St David's Peninsula		This area stretches for 50 miles of the Pembrokeshire coast from St Bride's Bay to Fishguard. The coast is varied but mainly consists of cliffs and small bays backed by sandy beaches, for instance at Whitesands Bay.
St Bride's Bay		An area of high cliffs and broad sandy beaches (e.g. Broad Haven, Newgate, Druidston Haven) between St David's and Marloes headlands.
Frontiers of the Roman Empire: Hadrian's Wall Criteria: i, iii & iv	WHS	Hadrian's Wall was built on the orders of the Emperor Hadrian <i>ca</i> . AD 122 at the northernmost limits of the Roman province of Britannia. It is a striking example of the organization of a military zone and illustrates the defensive techniques and geopolitical strategies of ancient Rome.
Liverpool: Maritime Mercantile City Criteria: ii, iii & iv		Six areas in the historic centre and docklands of the maritime mercantile City of Liverpool bear witness to the development of one of the world's major trading centres in the 18 <sup>th</sup> and 19 <sup>th</sup> centuries. Liverpool played an important role in the growth of the British Empire and became the major port for the mass movement of people, e.g. slaves and emigrants from northern Europe to America. Liverpool was a pioneer in the development of modern dock technology, transport systems and port management.

Key: NSA=National Scenic Area, AONB=Area of Outstanding Natural Beauty, NP=National Park, HC=Heritage Coast, WHS=World Heritage Site, criterion ii: to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design; iii: to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared; iv: to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history

Source: <a href="http://www.landscapesforlife.org.uk/">http://www.landscapesforlife.org.uk/</a> (accessed 22/12/15), <a href="http://www.nationalparks.gov.uk/">http://www.snh.gov.uk/</a> (accessed 22/12/15), <a href="http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/nsa/special-qualities/">http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/nsa/special-qualities/</a> (accessed: 23/12/15), <a href="http://whc.unesco.org/en/statesparties/gb">UNESCO</a> world heritage site website: <a href="http://whc.unesco.org/en/statesparties/gb">http://whc.unesco.org/en/statesparties/gb</a> (accessed: 11/11/15).

Figure A1c.11: Designated and other landscape areas in Regional Sea 6



# A1c.10 Features of Regional Sea 7

The following provides a brief overview of the coast covered by Regional Sea 7 and has been informed by the initiatives mentioned in Section A1c.2. Major statutory and non-statutory designations are shown in Table A1c.6 and Figure A1c.12.

The southern extent of Regional Sea 7 includes the northern coast of Northern Ireland, which has a large number of AONBs (Causeway Coast & Glens, Antrim Coast and Glens and Binevenagh) and the Giant's Causeway and Causeway Coast World Heritage Site. The area of the Causeway Coast, which includes the geologically and culturally important Giant's Causeway, has a prevailing undeveloped character and a strong sense of remoteness. Seaward views include that of Rathlin, the Kintyre Peninsula, Jura, Islay and Arran. Rathlin is a small island off the Northern Irish Coast, and contains vertical cliffs, sea caves, steep vegetated slopes, and headlands with lighthouses. The island affords views to Scotland, including to the Rhins of Galloway and back to the Antrim coast, and includes isolated farmsteads or dwellings.

The Scottish section of coast covered by Regional Sea 7 includes an area from the Kintyre Peninsula to Cape Wrath, and those islands within the Malin and Inner Hebrides (including Islay, Jura, Mull, Rum and Skye). The islands are individually distinctive (e.g. the generally low-lying nature of Islay and more mountainous terrain of Skye), and the coastline highly indented and diverse. Population density is low in these areas and there is a general absence of large-scale development, with fishing and farming prominent uses of the land and sea. There are a large number of National Scenic Area designations, representing the bulk of the area designated for landscape in Scotland. These largely coincide with areas identified as "wild land", and therefore represent some of the best natural and semi-natural areas in Scotland.

Table A1c.6: Relevant landscape conservation designations in Regional Sea 7

Site name	Designation type	Summary
South Lewis, Harris and North Uist	NSA	A rocky indented coast with wide sandy beaches between rocky headlands, numerous stacks and deep sea lochs. Harris has the highest peaks of the Outer Hebrides.
South Uist Machair		A flat area of machair dune formations and diverse vegetation with lime-rich lochans. Cultivated machair the largest in Scotland, extending 2km inland.
Wester Ross		The largest of all the NSAs, comprising a diverse range of landscapes including the Applecross Forest, Ben Damph Forest, Torridon Mountains and Loch Maree. Along the coast, Gruinard Bay, Loch Ewe and Loch Gairloch present a mixture of beaches, islands, headlands, inlets, woodlands and crofting settlements.
Trotternish		This area extends from Flodigarry in the north to Grealin in the south and includes the Quirang. The coastal edge comprises columnar basaltic cliffs or 'kilt rocks' which have spectacular views over the south of Raasay to the mainland.
The Small Islands		A small archipelago in the inner Hebrides. The four main islands include Rum, Eigg, Muck and Canna, while several other small islands and skerries are also present. Rum is now an important study site for research into the ecology of red deer, while Canna is well known for its populations of puffins and Manx shearwaters.
The Cuillin Hills		The area includes the Black and Red Cuillin Hills, Loch Scavaig and the Island of Soay. These mountains dominate the island seaboard of northwest Scotland.
North West Sutherland		Characterised by a bare, rugged and occasionally mountainous landscape, attributable to Lewisian gneiss geology – one of the oldest known formations in the world. The Clo Mor cliffs near Cape Wrath in the north are the highest on the Scottish mainland.

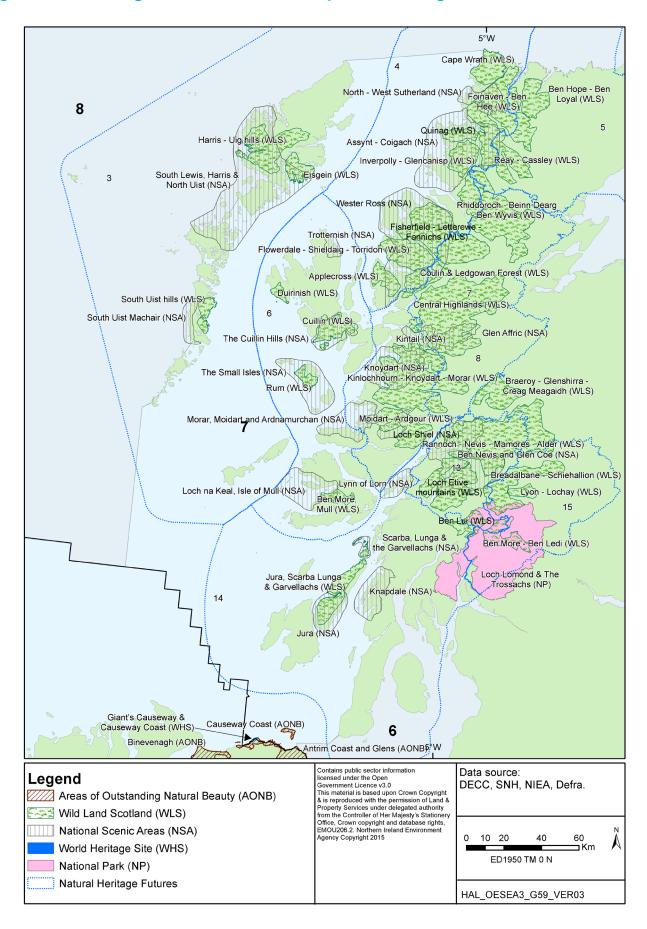
Site name	Designation type	Summary
Morar, Moidart and Ardnamurchan		Extends from the south shore of the Morar Peninsula to include the Sound of Arisaig, Loch Moidart, Kentra Bay and the northern shore of Ardnamurchan. There are numerous unspoilt sandy beaches with mountainous backdrops, the deepest lake in Britain at Loch Morar, and the most western point on mainland Britain at Ardnamurchan Point.
Knoydart		A remote peninsula only accessible by boat or a 26km walk across mountains and moorland. It includes four Munros and several lesser peaks, separated by broad glens, rivers and high lochs.
Kintail		Three long mountain ranges terminate in this area, and it is home to one of Britain's highest waterfalls, the Falls of Glomach. The coastline is dominated by mountains dropping sharply into sea lochs.
Assynt-Coigach		Located in the north-west of Scotland, north of Ullapool. Inland, there are spectacularly shaped steep hills, rising from moorland and lochs. The coastline presents a diverse landscape of inlets, sandy bays, rivers, lochs and native woodland.
Knapdale		Situated on the west coast of Scotland. Its landscape is dominated by the dense Knapdale Forest, covering many hills and providing scenic views across the Western Isles.
Jura		Jura is an island in the Inner Hebrides adjacent and to the northeast of Islay. It is dominated by three steepsided conical mountains (the Paps of Jura), which rise to 762m above sea level. Jura also has a large population of red deer.
Loch na Keal, Mull		Comprises the sea lochs of Loch na Keal and Loch Tuath, and the several small islands amongst them. A variety of landscapes exist, including island-studded seascape, various cliff forms, hills and woodland.
Lynne of Lorn		Includes the island of Lismore and its surrounding islets and skerries. It presents an island-studded waterway dominated by parallel limestone ridges both on land and partially submerged. These ridges support rich vegetation, varying from green, lush meadows to dense oaks and conifers.
Scarba, Lunga and the Garvellachs		Located to the north of the island of Jura. It includes the islands of Scarba, Lunga, the four Garvellach islands and many smaller islands and skerries. Scarba rises from the sea to a pyramid peak of 449m, while the Garvellachs are smaller and lower in elevation, but sharply angular with vertical cliffs to the north-west. The landscape is visually enhanced by the strong tidal currents which cause water to race amongst the islands.
Glen Affric		An area of varied glen scenery from remnants of Caledonian Pine Forest to heather, blaeberry and open moor.
Loch Shiel		Has the appearance of a deep fjord dissected into a mountainous terrain with lower slopes comprising woodland, grassland or rocky material. The character of the area is enhanced by Eilean Fhianain, the narrows of Linne Gorm and Loch Doilet in Glenhurich.
Ben Nevis and Glen Coe		The variety of scenery throughout the area is witnessed in hills that may be smooth or jagged, rounded or precipitous, grass or heather covered. The glens may contain moorland, meadow, arable or forest, and swift streams or calm lochs. The sea shore may be wooded and bayed as in outer Loch Leven, or fjord-like as in the inner loch and Loch Etive.
Loch Lomond, Argyll & Stirling		Loch Lomond is the largest water body in Great Britain. The loch straddles the highland boundary fault, and thus has a variety of scenery stretching from the lowland character of the south shore to the deeply entrenched fjord-like northern head of the loch at Ardlui. The seminatural woodlands of the islands are complemented by the plantations on the shore. The summit of Ben Nevis dominates some of the views around the Loch north of Ross Point.

Site name	Designation type	Summary
Causeway Coast, NI	AONB	Encompasses 29km of coastal scenery including cliffs and headlands broken by the wide sweep of sandy beaches backed by dunes. Volcanic rocks and white chalk eroded by the North Atlantic form geological features including the Giant's Causeway and Carrick-a-Rede. Small harbours, fisheries and farms are found along the coast. A varied wildlife thrives on the offshore islands and rocks, amid the cliffs, sand dunes and hinterland.
Antrim Coast and Glens, NI		The coastline of County Antrim from Ballycastle to Larne and the Glens of Antrim contain some of the most beautiful and varied scenery in Northern Ireland. The area is dominated by a high undulating plateau cut by deep glens which open north and eastwards to the sea. Gentle bays are separated by blunt headlands; exposed moorland gives way to sheltered valleys; wide open expanses to enclosed farmland. Rathlin Island is rich in historical, geological and botanical interest.
Binevenagh, NI		Covers the area between the Roe Estuary and Magilligan, the cliffs of Binevenagh, the Bann Estuary and Portstewart sand dunes. The skyline of the cliffs at Binevenagh makes a breathtaking contrast with the outstanding expanse of Magilligan Strand. The steep, round-topped grassland hills and the sandy shoreline are the dominant features, separated from the rocky shore of Donegal by just one kilometre of sea.
Giant's Causeway and Causeway Coast, NI Criteria: vii, viii	WHS	The Giant's Causeway and Causeway Coast is a spectacular area of global geological importance on the sea coast at the edge of the Antrim plateau in Northern Ireland. The most characteristic and unique feature of the site is the exposure of some 40,000 large, regularly shaped polygonal columns of basalt in perfect horizontal sections, forming a pavement. This dramatic sight has inspired legends of giants striding over the sea to Scotland. Celebrated in the arts and in science, it has been a visitor attraction for at least 300 years and has come to be regarded as a symbol for Northern Ireland.

Key: NSA=National Scenic Area, AONB=Area of Outstanding Natural Beauty, WHS=World Heritage Site, criterion vii: to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance; viii: to 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.

Source: SNH website <a href="http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/nsa/special-qualities/">http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/nsa/special-qualities/</a> (accessed: 23/12/15), UNESCO world heritage site website: <a href="http://whc.unesco.org/en/statesparties/gb">http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/nsa/special-qualities/</a> (accessed: 11/11/15)

Figure A1c.12: Designated and other landscape areas in Regional Sea 7



# A1c.11 Features of Regional Sea 8

The following provides a brief overview of the coast covered by Regional Sea 8 and has been informed by the initiatives mentioned in Section A1c.2. Major statutory and non-statutory designations are shown in Table A1c.7 and Figure A1c.13.

Regional Sea 8 characterised by the western shores of the Outer Hebrides, including Uist and Barra, Harris and Lewis, the north coast of Scotland from Cape Wrath to Duncansby Head and also includes Orkney, the western coast of Shetland and St Kilda. There is a strong sense of exposure on the coasts of all the islands. The Atlantic coasts of the Outer Hebrides include distinctive sandy beaches backed by extensive machair grassland, and Harris has mountainous terrain which contrasts with the lower lying isles to the south and north. The area is sparsely populated, and the landscape is also influenced by the Gaelic language.

The north coast of Scotland is sparsely populated and has a coast with a diverse and dramatic predominantly rocky coastline with high cliffs. The eastern end of the coast includes views to Orkney and Hoy in places. Dounreay nuclear power station forms a prominent landmark. To the north, Orkney is a group of small and diverse islands located around a larger mainland. The islands are low lying and generally meet the coast at rocky headlands or sandy beaches. The islands have a long settlement history which has contributed to the Heart of Neolithic Orkney World Heritage Site designation. More recently, the remains of WWII infrastructure and a number of protected wreck sites indicate the strategic role the islands played in war-time. To the north, Shetland is an elongated group of islands with an extremely varied coastline which is often low and rocky but at times having cliffs 200m. The islands have well preserved archaeological remains (e.g. at Mousa) and a strong sense of Nordic culture.

To the far west of Regional Sea 8, St Kilda is both a National Scenic Area and World Heritage Site. The now uninhabited islands comprise an archipelago (includes Hirta, Soay, Boreray and Dun) is made of the rim of an ancient volcano, with the Village Bay on the previously occupied island of Hirta being amphitheatrical, and backed by steep cliffs. Seabirds dominate the landscape and the area is designated as internationally important in this regard.

Table A1c.7: Relevant landscape conservation designations in Regional Sea 8

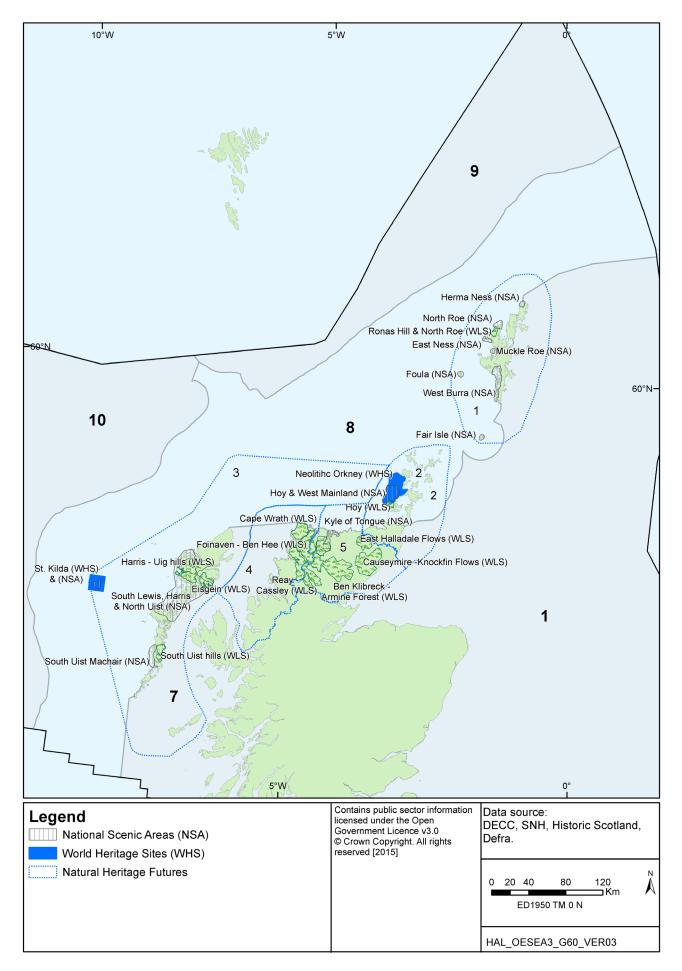
Site name	Designation type	Summary
Hoy and West Mainland, Orkney	NSA	Coastal Hoy is made up of soaring cliffs and headlands and the famous stack, the Old Man of Hoy. The area has a strong visual interrelationship with the west mainland. The landscape is noticeably open due to the lack of trees, and supports abundant relics of former occupation.
South Lewis, Harris and North Uist		A rocky indented coast with wide sandy beaches between rocky headlands, numerous stacks and deep sea lochs. Harris has the highest peaks of the Outer Hebrides.
South Uist Machair		A flat area of machair dune formations and diverse vegetation with lime-rich lochans. Cultivated machair the largest in Scotland, extending 2km inland.
Kyle of Tongue		This area extends from the east shore of Torrisdale Bay in the east, westwards along the coast of Sutherland including Neave Island, Eilean nan Ron and the Rabbit Islands to Port Vasgo in the west, and southwards to include Ben Hope and Ben Loyal.
Foula, Shetland		Foula contributes to Shetland's scenery of the mainland and is characterised by stacks, cliffs, arches and caves.
South West Mainland, Shetland		The southern mainland varies from open cliff coasts to fjord-like indentations. Numerous stacks and small islands give the western seascape a distinctive character.
Muckle Roe, Shetland		Remarkable high red sandstone cliffs make a significant contribution to the wider coastal scene of St Magnus Bay.

Site name	Designation type	Summary
Esha Ness, Shetland		Consists of fine headlands, cliffs, skerries and stacks.
Fethaland, Shetland		The roads from Burgo Taing to Greenfield on the northern side of the village of North Roe and the summits of Hill of Sandvoe, Saefti Hill, Heogel of the Moor and Fugla Ness define the southern limit. To the north, the peninsula, Ramna Stacks and Uyea Isle are included in the scenic area.
Hermaness, Shetland		A broad coastal strip from Uyea to Burravoe in Northmavine.
St Kilda	NSA	Comprises the entire archipelago (Hirta, Soay, Boreray and Dun). The landscape consists of steep cliffs, stacks and steep grassy valley slopes. The islands are home to internationally important seabird colonies.
Criteria: iii, v, vii, ix, x	WHS	The tiny archipelago of St Kilda, lying off the west coast of mainland Scotland, is breathtaking. Formed from the rim of an ancient volcano associated with the opening up of the North Atlantic some 65-52 million years ago, the intensely dramatic, jagged landscape of towering cliffs – some of the highest sea cliffs in Europe – and sea stacks present stark black precipitous faces plunging from steep grass-green slopes in excess of 375m. Scenically, every element appears vertical, except the smooth amphitheatre of Village Bay on Hirta with its relict historic landscape. Exposure to some of the greatest wave heights and strongest wind speeds in Europe plays a major role in shaping the coastal ecology.
Heart of Neolithic Orkney Criteria: i, ii, iii, iv	WHS	The group of Neolithic monuments on Orkney consists of a large chambered tomb (Maes Howe), two ceremonial stone circles (the Stones of Stenness and the Ring of Brodgar) and a settlement (Skara Brae), together with a number of unexcavated burial, ceremonial and settlement sites. The group constitutes a major prehistoric cultural landscape which gives a graphic depiction of life in this remote archipelago in the far north of Scotland some 5,000 years ago.

Key: NSA=National Scenic Area, WHS=World Heritage Site, criterion i: to represent a masterpiece of human creative genius; ii: to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design; iii: to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared; iv: to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history; vii: to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance; ix: to 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; x: to 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.

Source: SNH website <a href="http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/nsa/special-qualities/">http://www.snh.gov.uk/protecting-scotlands-nature/protected-areas/national-designations/nsa/special-qualities/</a> (accessed: 23/12/15), UNESCO world heritage site website: <a href="http://whc.unesco.org/en/statesparties/gb">http://whc.unesco.org/en/statesparties/gb</a> (accessed: 11/11/15)

Figure A1c.13: Designated and other landscape areas in Regional Sea 8



# A1c.12 Regional Seas 9, 10 & 11

Regional Seas 9, 10 and 11 do not contain any designated areas or seascape characterisations. The remote seascapes of these areas may in time be subject to such assessment, though with the exception of Rockall (Regional Sea 10), do not contain any areas of land.

## A1c.13 Evolution of the baseline and environmental issues

Coastal landscapes and seascapes are influenced by natural (e.g. flooding, coastal erosion) and anthropogenic (e.g. development) sources of change. Climate change has the potential to result in changes to coastal landform through changes to sediment budgets (erosion and accretion rates) and wider seascape change through sea-level rise and how the coast responds, which is also linked to coastal policy such as that contained in shoreline management plans and past anthropogenic influences (e.g. in relation to coastal squeeze) – see Appendix 1b Geology, substrates and coastal processes. Erosion and changes to the coast can have cultural effects as well as effects on the natural environment, for instance the loss of scheduled monuments and listed buildings<sup>14</sup> which are key components to the coastal landscape. A linked factor is potential future changes at the coast from sea-level rise (e.g. loss of intertidal area and beach steepening, changes in shoreline protection in the form of defence, retreat and realignment, and associated changes in habitats, species and patterns of use). Agricultural land use change (including forestry) and continued expansion or changes to settlement and onshore infrastructure projects continue to be forces for change in many areas, and for which cumulative or in-combination effects are possible between onshore and landscape/seascape changes.

Prior to the development of offshore renewables, offshore developments in UK waters have primarily been in relation to North Sea oil and gas installations where the only representation of such developments at the coast or on land was generally in the form of cable and pipe landfall and associated infrastructure (e.g. former fabrication and maintenance yards such as that at Nigg and Ardersier) and terminals (e.g. Easington). Drilling activity and production platforms have in the most part (with the exception of Beatrice and Jacky in the Moray Firth, exploration wells sites off Dorset and Cardigan Bay, structures in the east Irish Sea and those associated with the Cromarty Firth rig support industry) been too far from shore to be visible from the coast, but now define the seascapes of some offshore areas (e.g. as described in MMO 2012). The majority of offshore hydrocarbon basins on the UKCS are at a mature stage of development, and decommissioning is being planned or undertaken for a number of oil and gas fields. While new development may make use of existing surface or subsea infrastructure (e.g. through carbon capture and storage – see Appendix 1h) or result in entirely new structures, UKCS hydrocarbon production is in decline, and the character of some offshore and coastal areas with strong associations with the industry may change in the coming decades.

The more recent development of offshore renewables, namely offshore wind farms (OWFs), wave and tidal devices, has led to a greater consideration of landscape/seascape issues in addition to other potential environmental effects primarily due to their proximity to the coast, and therefore visibility from land compared to the life of many offshore oil and gas facilities which have been outside of visible range from the coast. Current OWFs tend to be restricted on technical and economic grounds to water depths of between 30 and 60m which in most instances other than some areas of the southern North Sea (e.g. Dogger Bank), has led to such developments or proposed developments being visible from the shore. The Hywind tethered

-

<sup>&</sup>lt;sup>14</sup>e.g. see: <a href="https://historicengland.org.uk/advice/heritage-at-risk/">https://historicengland.org.uk/advice/heritage-at-risk/</a>, <a href="https://http://scharp.co.uk/">https://scharp.co.uk/</a>, <a href="https://historicengland.org.uk/advice/heritage-at-risk/">https://scharp.co.uk/</a>, <a href="https://historicengland.org.uk/advice/heritage-at-risk/">https://historicengland.org.uk/advice/heritage-at-risk/</a>, <a href="https://historicengland.org.uk/advice/historicengland.org.uk/advice/historicengland.org.uk/advice/historicengland.org.uk/advice/historicengland.org.uk/advice/historicengland.org.uk/advicengland.org

turbine demonstrator and more recent proposals for a demonstration scale tethered turbine site 30km off the coast of Peterhead in Scotland suggests the potential for future deployment of such devices that could extend the feasible economic depth ranges of wind turbines, which could lead to a change in offshore seascapes. Renewables developments also require landfall and other onshore infrastructure for operation and maintenance, and ports presently or formerly utilised by the offshore oil and gas industry are now also servicing the renewables sector, perpetuating their connection with the offshore energy industry, however some new port developments may be required to provide the required capacity for renewables deployment (see Appendix 1h). In Scotland, aquaculture continues to develop and the changes in the coastal landscape/seascape this can generate have been the subject of guidance (SNH 2008, ASH design + assessment 2011). Moreover, Scotland's update to its Natural heritage Futures (SNH 2009) outlines a number of actions relating to landscape and seascape, including that marine development should implement strategies to avoid or mitigate negative visual impacts, that marine spatial planning should address the need to direct development towards areas of least sensitivity and that EIA should consider visual impact, including landscape carrying capacity. Whilst sensitivity is not specifically mentioned in the National Marine Plan, seascapes are recognised, and regional marine plans<sup>15</sup> have the potential to add more specificity to policies for individual areas.

The coastal access duty placed on Natural England by the *Marine and Coastal Access Act* 2009, and equivalent coastal trails and access in the devolved administrations, has the potential to result in enhanced use of the coast for recreation which has the potential to increase the number of receptors experiencing the coast and its seascapes.

<sup>-</sup>

<sup>&</sup>lt;sup>15</sup> As defined in *The Scottish Marine Regions Order 2015* 

#### References

ASH design + assessment (2011). Landscape/seascape capacity for aquaculture: Outer Hebrides pilot study. Scottish Natural Heritage Commissioned Report No.460, 74pp.

Cadw (2007). Guide to good practice on using the register of landscapes of historic interest in Wales in the planning and development process. Revised (2nd) edition including revisions to the assessment process, Cadw, 32pp.

CCW (2008a). Regional seascape assessment for Wales. White Consultants CCW Policy Research Report No. 08/3. CCW, Bangor, 130pp.

CCW (2008b). Welsh seascapes and their sensitivity to offshore developments. A report by the Countryside Council for Wales, 45pp.

DTI (2005). Guidance on the assessment of the impact of offshore wind farms: Seascape and visual impact report. Department of Trade and Industry, London, 127pp.

Hill M, Briggs J, Minto P, Bagnall D, Foley K and Williams A (2001). Guide to Best Practice in Seascape Assessment. INTERREG Programme (Contract EU/100/10), 28pp.

Historic England (2015). The Setting of Heritage Assets. Historic Environment Good Practice Advice in Planning: 3. 14pp.

LI & IEMA (2013). Guidelines for Landscape and Visual Impact Assessment (3<sup>rd</sup> Edition). The Landscape Institute & the Institute of Environmental Management and Assessment, 169pp.

LUC (2015). National Seascape Assessment for Wales. NRW Evidence Report 80, Natural Resources Wales, Bangor (Wales), 78pp.

MMO (2014x). Seascape Assessment for the South Marine Plan Areas: Technical Report. A report produced for the Marine Management Organisation, pp 88. MMO Project No: 1037.

Natural England (2009). Guidelines for Implementing the European Landscape Convention. Part 2: Integrating the Intent of the ELC into Plans, Policies and Strategies. Prepared by Land Use Consultants for Natural England. 16pp + Appendices.

Natural England (2012a). An approach to Seascape Character Assessment. Natural England Commissioned Report NECR105, 47pp.

Natural England (2012b). Seascape Characterisation around the English Coast (Marine Plan Areas 3 and 4 and Part of Area 6 Pilot Study). Natural England Commissioned Report NECR106, 219pp.

Natural England (2015). Summary of Evidence: Landscape. Natural England access to evidence information note EIN013, 17pp.

Scott KE, Anderson C, Dunsford H, Benson JF & MacFarlane R (2005). An assessment of the sensitivity and capacity of the Scottish seascape in relation to offshore windfarms. Scottish Natural Heritage Commissioned Report No.103 (ROAME No. F03AA06), 193pp.

Scottish Natural Heritage (2008). Guidance on Landscape/Seascape Capacity for Aquaculture. Scottish Natural Heritage, 83pp.

Scottish Natural Heritage (2009). Natural Heritage Futures Update: Coasts and Seas. Scottish Natural Heritage, 6pp.

Scottish Natural Heritage (2010). The special qualities of the National Scenic Areas. SNH Commissioned Report No.374.

Tapper B & Hooley D (2010). Historic Seascape Characterisation (HSC). National HSC Method Statement. Revised Working Draft. Report for English Heritage: Historic Environment Service, Cornwall Council.

Tapper B (2008). Historic Seascape Characterisation (HSC). National HSC Method Statement. Report for English Heritage: Historic Environment Service, Cornwall County Council.

Defra (2007). European Landscape Convention: A Framework for Implementation. Department for Environment, Food and Rural Affairs, 11pp.

Defra (2005). Regulatory Impact Assessment: Council of Europe European Landscape Convention. Department for Environment, Food and Rural Affairs, 12pp.

SNH (2002). Natural Heritage Zones: A National Assessment of Scotland's Landscapes. Scottish Natural Heritage, 445pp.

White Consultants (2009). Offshore energy Strategic Environmental Assessment (SEA) seascape study: Identification of seascape units around the English coast and consideration of seascape buffer zones. Offshore Energy SEA Working Paper produced as part of the UK Department of Energy and Climate Change's Offshore Energy Strategic Environmental Assessment programme.

White Consultants (2016). Review and update of Seascape and Visual Buffer study for Offshore Wind farms. White Consultants, 73pp. plus appendices.