

Project Title: North Devon and Exmoor Seascape Character Assessment

Client: National Trust, North Devon Coast AONB, Exmoor National Park, North Devon & Torridge Councils and Natural England

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North Devon and Exmoor Seascape Character Assessment

Final Report

Prepared by LUC on behalf of National Trust, North Devon Coast AONB, Exmoor National Park Authority, North Devon Council, Torridge District Council and Natural England

November 2015

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1 Introduction

- 1.1 Seascape is defined by Natural England in the terms of the European Landscape Convention (ELC) as:
 - "An area of sea, coastline and land, as perceived by people, whose character results from the actions and interactions of land with sea, by natural and/or human factors".1
- 1.2 The UK Marine Policy Statement² supports this definition of seascape, and adds that in the context of the policy statement:
 - "references to seascape should be taken as meaning landscapes with views of the coast or seas, and coasts and the adjacent marine environment with cultural, historical and archaeological links with each other".
- The Bristol Channel and Atlantic approaches is an iconic seascape. There are many protected landscapes along its shores, with special qualities that rely on their seascape character and setting, as well as their visual and cultural connections with the surrounding sea, coastlines and the iconic island of Lundy. This study focuses on a key section of the English side of the shared seascape. **Figure 1.1** presents an overview of the study area in the context of the surrounding English and Welsh nationally protected landscapes and areas of National Trust land which covers over a third of the North Devon and Exmoor coast.
- 1.4 In response to the local context and identified needs, a Steering Group of key local partners was set up to commission a Seascape Character Assessment for North Devon and Exmoor. The longer term aspiration is to seek adoption of this Assessment as a supplementary planning document to the Local Plans.
- 1.5 The area for this study covers some 145km (90 miles) of coast between Marsland Mouth on the Cornwall border to the boundary

- of Exmoor National Park near Minehead, including the Taw/Torridge Estuary and its fringes. It extends offshore to the 12 nautical mile territorial limit, including Lundy and its surrounding waters at the edge of the Atlantic Ocean.
- 1.6 The study area includes all of the coastal sections of the North Devon Area of Outstanding Natural Beauty (AONB) and Exmoor National Park. More information on the definition of the study area, including its inland extent, is provided in **Chapter 2**.
- 1.7 This assessment is based on new primary evidence, supporting secondary data and engagement of key stakeholders and representatives of the coastal communities of North Devon and Exmoor.

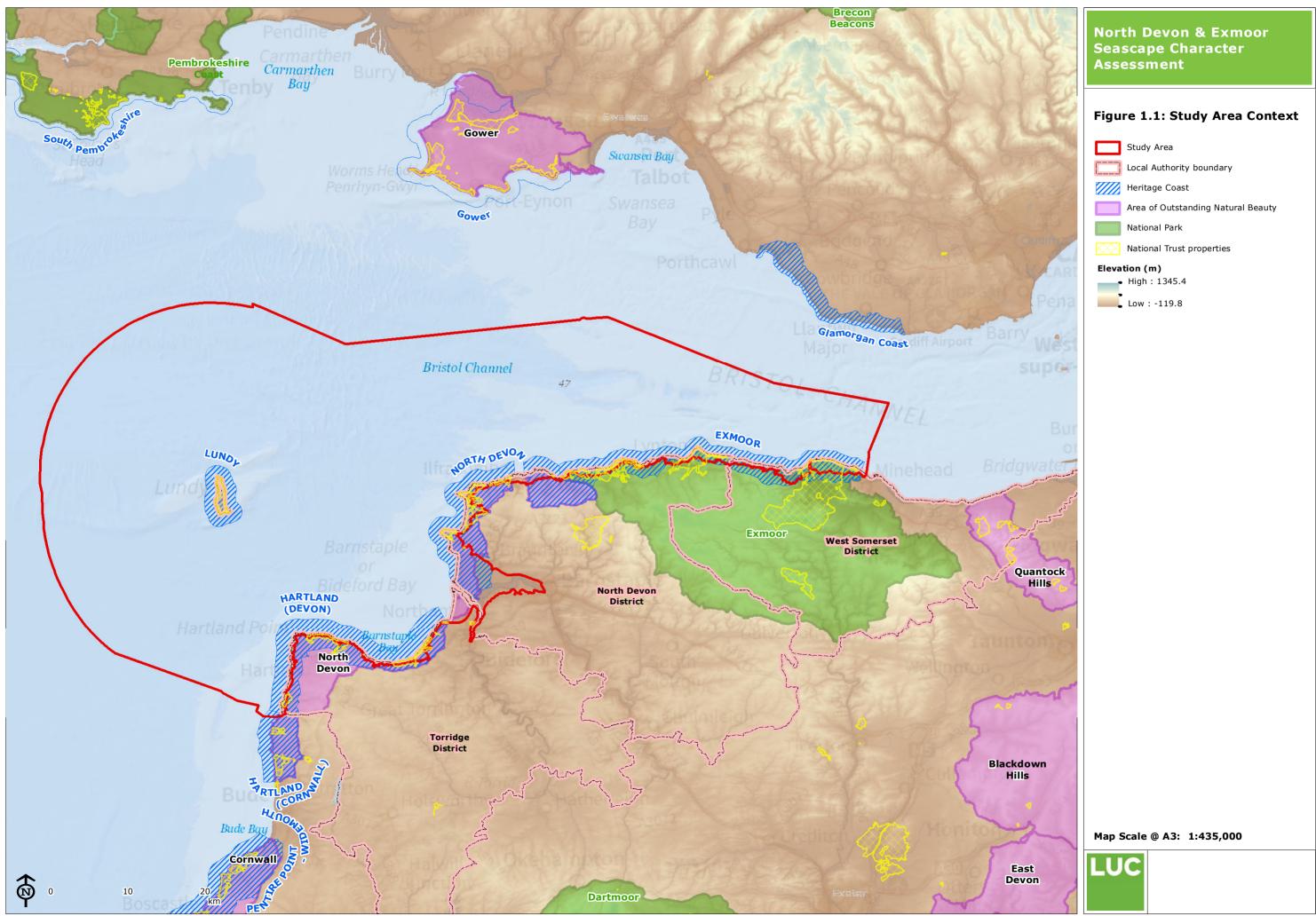
Objectives of this study

- 1.8 This Seascape Character Assessment will help provide baseline evidence to support a number of important planning, management and policy activities by project partners (and others) over the coming years. These include:
 - Spatial Planning with regard to development both at sea and on the coast, complementing the published Landscape Character Assessments to establish a full land and sea classification and character evidence base.
 - Development of the forthcoming Marine Management Plan for the South West, by the Marine Management Organisation (MMO).
 - Defining the Special Qualities of the coastline of North Devon AONB and Exmoor National Park and the properties of the National Trust.
 - Development of future Management Plans for the AONB, Exmoor National Park and the National Trust properties.
 - Assisting developers and planners to make informed decisions about offshore developments, including renewables such as wind and tidal energy.

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¹ Natural England, 2010, All Landscapes Matter Position Statement

² UK Marine Policy Statement (MPS), 2011, HM Government, Northern Ireland Executive, Scottish Government, Welsh Assembly Government) North Devon and Exmoor Seascape Character Assessment



Structure of this report

- 1.9 This remainder of this report is structured as follows:
 - **Chapter 2** summarises the method undertaken for this study.
 - Chapter 3 provides an overview of the character of the North Devon and Exmoor seascape, as well as an assessment of the visual resource it provides to the surrounding landscapes and seascapes.
 - **Chapter 4** sets out the classification of Seascape Character Areas and Types.
 - Chapter 5 provides the full Seascape Character Area profiles, each including key characteristics, special qualities/sensitivities, forces for change and a mapped overview of its visual resource.
 - **Appendix 1** contains a bibliography and data list.
 - **Appendix 2** provides generic key characteristics for the Seascape Character Types.
 - **Appendix 3** lists the individuals and organisations who have contributed to this study.



2 Method

Introduction to this chapter

- 2.1 The method for undertaking this study follows good practice, notably 'An approach to Seascape Character Assessment' published by Natural England (2012)³ and draws on the implementation of seascape character assessments at various scales across England and Wales. It particularly aligns with the approach advocated and used by the MMO at the strategic scale, recognising that this is a detailed 1:25,000 scale study which will inform and feed into a future Seascape Assessment for the whole of the South West Marine Plan Area.
- 2.2 The method for undertaking this Seascape Character Assessment comprised six main steps:
 - · Data gathering and assimilation
 - Confirming the inland limits of the study area
 - Draft classification
 - Field and boat survey
 - Stakeholder engagement
 - Analysis
 - Reporting
- 2.3 The study involved regular consultation and feedback from the Steering Group, with new information and stakeholder values feeding into and refining the process as it developed.
- 2.4 This chapter summarises the method undertaken for this study; Chapter 3 presents an overview of seascape character and the

final classification of Seascape Character Areas (SCAs) and Seascape Character Types (SCTs).

Summary of key steps

Data gathering and assimilation

- 2.5 The first stage of the Seascape Character Assessment involved collating relevant and available desk-based evidence, both in GIS format and in the form of reports/literature. A bibliography (including websites) and data list of the key information sources used by this study is included in **Appendix 1**. Further information was added to the project resource as the study progressed.
- 2.6 All of the GIS-based information, including base mapping (Ordnance Survey and UK Hydrographic Office marine charts) was compiled in a logical sequence into an Arc GIS project database, structured using headings of 'Natural', 'Cultural/Social' and Perceptual/Aesthetic' to reflect the main strands of influence on seascape character.

Confirming the inland limits of the study area

- 2.7 As set out in Chapter 1 and illustrated at Figure 1.1, the study area stretches from the North Devon/Cornish border at Marsland Mouth to Minehead harbour (at the eastern limits of Exmoor National Park), extending offshore to the 12 nautical mile limit, including Lundy and its surrounding waters. It also includes the significant seascape feature of the Taw/Torridge Estuary, whose estuary mouth forms the natural divide between North Devon district to the north and Torridge to the south.
- 2.8 An early task was to establish the landward limits of the Seascape Character Assessment, whilst acknowledging that visual influences extend to long distances beyond North Devon and Exmoor. These visual relationships extend to as far as the foothills of the Brecon Beacons and the south-eastern coast of Pembrokeshire Coast National Park in Wales to the north, and into Cornwall to the south. A separate but integral part of this study (discussed in **Chapter 3**) considers and maps these wider visual links.

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³ https://www.gov.uk/government/publications/seascape-character-assessments-identify-and-describe-seascape-types

- 2.9 One of the key objectives of the Seascape Character Assessment is to provide a complementary spatial classification and descriptive evidence on character to the published Landscape Character Assessments covering the surrounding landscapes⁴. As such, exploring how the boundaries of the local authority Landscape Character Types (LCTs) (and Landscape Character Areas (LCAs) in the case of Exmoor), and county-wide Devon Character Areas adjoin the coast was a key first step in exploring the landward extent.
- 2.10 In discussion with the Steering Group, it was agreed where possible to use the existing Landscape Character Type boundaries (the finest grain of unit) to inform the landward boundary often, but not always, the first one or two units back from the Low Water Mark. This exercise sought to ensure that areas of coast with the strongest immediate relationship with the sea are included in the study area; for North Devon and Torridge, this encompasses all Landscape Character Types already classified as 'Coasts' and 'Offshore Islands'⁵. In Exmoor, a specific coastal classification is not presented in the current Landscape Character Assessment, but again, an inland boundary considered the existing LCA and LCT boundaries in its definition.
- 2.11 Where steeply rising land backs the sea, or elevated summits directly overlook it, these are also included in the study area even if it required 'cutting through' a wider LCT or LCA that extends much further inland.
- 2.12 In the case of the Taw/Torridge Estuary, whose natural, cultural and visual characteristics are strongly shaped by its interrelationships between land and sea, the inland boundary extends up the main estuarine channels to the physical boundaries provided by Bideford Long Bridge on the Torridge and the Taw Bridge on the Taw, beyond which the influence of the sea in shaping overall character diminishes. As per the approach for the study area as a whole, as explained in para 2.10, fringes of lowlying land surrounding the estuary are included within the SCA,

nesting within the landscape character assessment framework where appropriate.

- 2.13 It must be noted that this Seascape Character Assessment is not intended to replace the Landscape Character Assessments in coastal areas where the studies overlap; instead the two resources should be used together to provide a fully integrated resource on landscape and seascape character. It is also important to emphasise that the Landscape Character Assessments include additional information relevant to seascape, including for areas of landscape situated some distance inland but which have views to the sea, such as the elevated North Devon Downs and Hartland Plateau. Therefore the inland boundary lines of this study should not be interpreted as representing an absolute end to land/sea relationships.
- 2.14 Initial desk-based findings were verified during the field survey stage and following inputs from the Steering Group, particularly considering relationships from the sea back to the land. Further information on the final seascape classification is set out and mapped in **Chapter 3**.

Draft classification

- 2.15 Once the draft study area boundary was defined, the various spatial layers in GIS were interrogated and viewed together to draw out variations in character.
- 2.16 Key information used to inform boundaries of the SCAs and their components SCTs included:
 - Water depth (bathymetry)
 - Marine features such as shoals, rocks, overfalls
 - Tidal streams and wave climate
 - Bedrock and sediment geology
 - Marine and intertidal habitats
 - Marine use and activities
 - Perceptual and aesthetic associations including sense of remoteness/ tranquillity, shelter/exposure

⁴ These are the North Devon and Torridge Joint Landscape Character Assessment (2010), Exmoor National Park Landscape Character Assessment (2007), and Devon-wide Character Assessment (2012).

See https://new.devon.gov.uk/planning/planning-policies/landscape/devons-landscape-character-assessment

- Views to and from the coast
- 2.17 Overview maps showing some of the above factors that have influenced the seascape classification are presented in **Chapter 3**.
- 2.18 A draft classification of Seascape Character Areas (SCAs) and Seascape Character Types (SCTs) was produced at this stage, prior to field/boat survey verification and consultation.
- 2.19 These two units are defined as follows:

Seascape Character Areas (SCAs)

- 2.20 These are defined as 'single unique areas of character, each with its own unique character and identity". The final classification defines 27 Seascape Character Areas for North Devon and Exmoor. In defining the SCAs, consideration has been given to the spatial relationship with the national-scale Marine Character Areas already defined for Wales by Natural Resources Wales.
- 2.21 The relationship between the Seascape Character Areas and Landscape Character Areas is shown at **Figure 2.1** at the end of this chapter.

Seascape Character Types (SCTs)

- 2.22 Character Types are 'distinct types of seascape that are relatively homogenous in character. They are generic in character in that they may occur in different areas..'. Each SCA is made up of one or more SCT, helping to illustrate the types of seascape that combine to shape the unique character of the individual areas. A total of 27 SCTs are defined for North Devon and Exmoor, covering the coastal, intertidal and marine parts of the study area.
- 2.23 As explained previously when describing the inland study area, the existing Landscape Character Types present within the coastal part of the study area were used directly to allow for, wherever possible, a seamless integration between the seascape and landscape classifications. This study identifies seven new coastal/intertidal SCTs and four new marine SCTs, which are

- hoped to help inform further seascape studies in Devon. Generic key characteristics have therefore been prepared for the new SCTs, compiled alongside the existing Devon-wide key characteristics at **Appendix 2**.
- 2.24 The relationship between the Seascape Character Types and Landscape Character Types is shown at **Figure 2.2** at the end of this chapter.

Field and boat survey

- 2.25 The assessment involved survey by boat and on land, during August/September 2015. This included scheduled trips on the MV Balmoral between Minehead and Ilfracombe, the Waverley paddle steamer from Ilfracombe to Lundy, the MS Oldenburg from Bideford to Ilfracombe, and a private boat charter covering the remaining section between Westward Ho! and the Cornish border.
- 2.26 This was a targeted exercise to gather information to supplement and inform the desk based assessment, take photographs, experience the sea conditions and perceptual qualities and understand relationships and interactions between land and sea, including the views from the sea to the coast. Opportunities were sought to discuss sea conditions, uses and issues with the boat skippers where possible. The National Trust, North Devon AONB and representative from the North Devon Fisheries Local Action Group (FLAG) also participated in some of the surveys to share their local knowledge about character and key issues.
- 2.27 The seascape classification was adjusted and amended based on the information from the field and boat surveys.

Stakeholder engagement

2.28 Understanding what people value about the seascape is a vital part of the study. A combination of workshops and analysis of submissions via the 'Rate my View' App were used to gather information on what people value about the different Seascape Character Areas, and the issues/forces for change they felt are important for this study to acknowledge.

⁶ Taken from Countryside Agency and Scottish Natural Heritage (2002) *Landscape Character Assessment Guidance for England and Scotland*. Prepared by LUC and Carys Swanwick (University of Sheffield).

https://naturalresources.wales/MarineCharacterAreas?lang=en

Workshops

- 2.29 Three participatory workshops were held in September 2015, in Barnstaple on the 8th (to cover North Devon), Bideford on the 9th (to cover Torridge), and Lynmouth on the 17th (for Exmoor). These workshops involved an invited audience of local stakeholders, providing an opportunity to present the draft results of the work to date and through a series of exercises gather views on:
 - The draft Seascape Character Area classification boundaries and locally resonant names.
 - Special Qualities What people value about each of the Seascape Character Areas / which particular aspects are key to local distinctiveness.
 - Forces for change the key issues people felt were impacting on the special qualities of the different SCAs.
- 2.30 The workshops generated a large amount of information to feed into the study. They were especially useful in helping to ensure that this work is aligned with the principles of the European Landscape Convention (ELC); identifying the values that need to be considered in informing future change and management.

Rate my View (http://ratemyview.co.uk/)

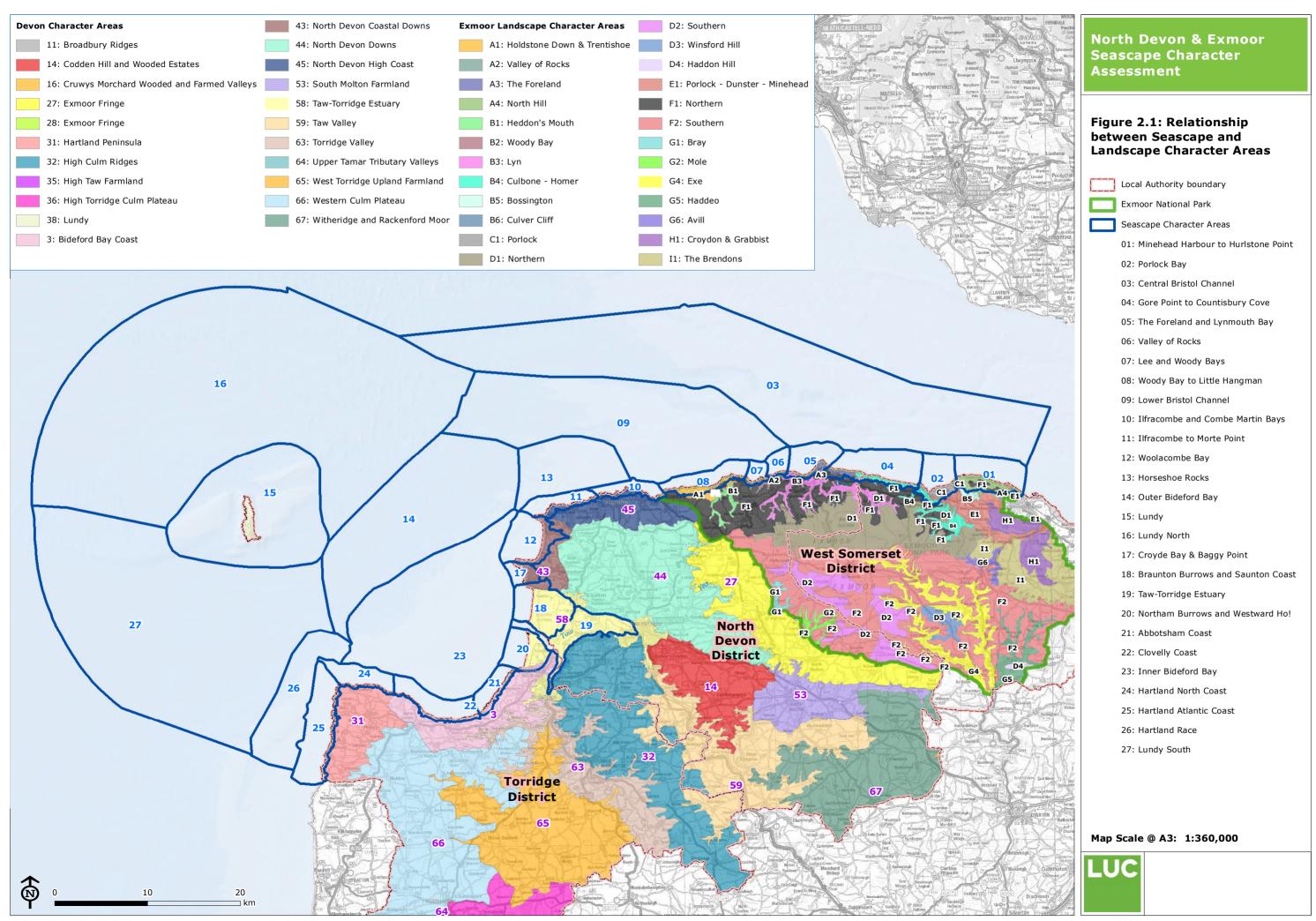
2.31 Rate my View is a smartphone based application ('app') which was used by this project to invite people to photograph and comment on landscapes and seascapes within the North Devon AONB, uploading them onto a web-based interactive map. Users of the app are required to submit a photograph taken on their smartphone, provide a rating between one and five stars, three words or phrases describing the view and any additional comments about the photograph or landscape/seascape. The responses collected for this study contributed to the information presented within the 'Key characteristics' and 'Special qualities and key seascape sensitivities' sections of the SCA profiles (Chapter 5). A total of 116 submissions were received up to the 13th October 2015, of which 82 were within a defined Seascape Character Area.

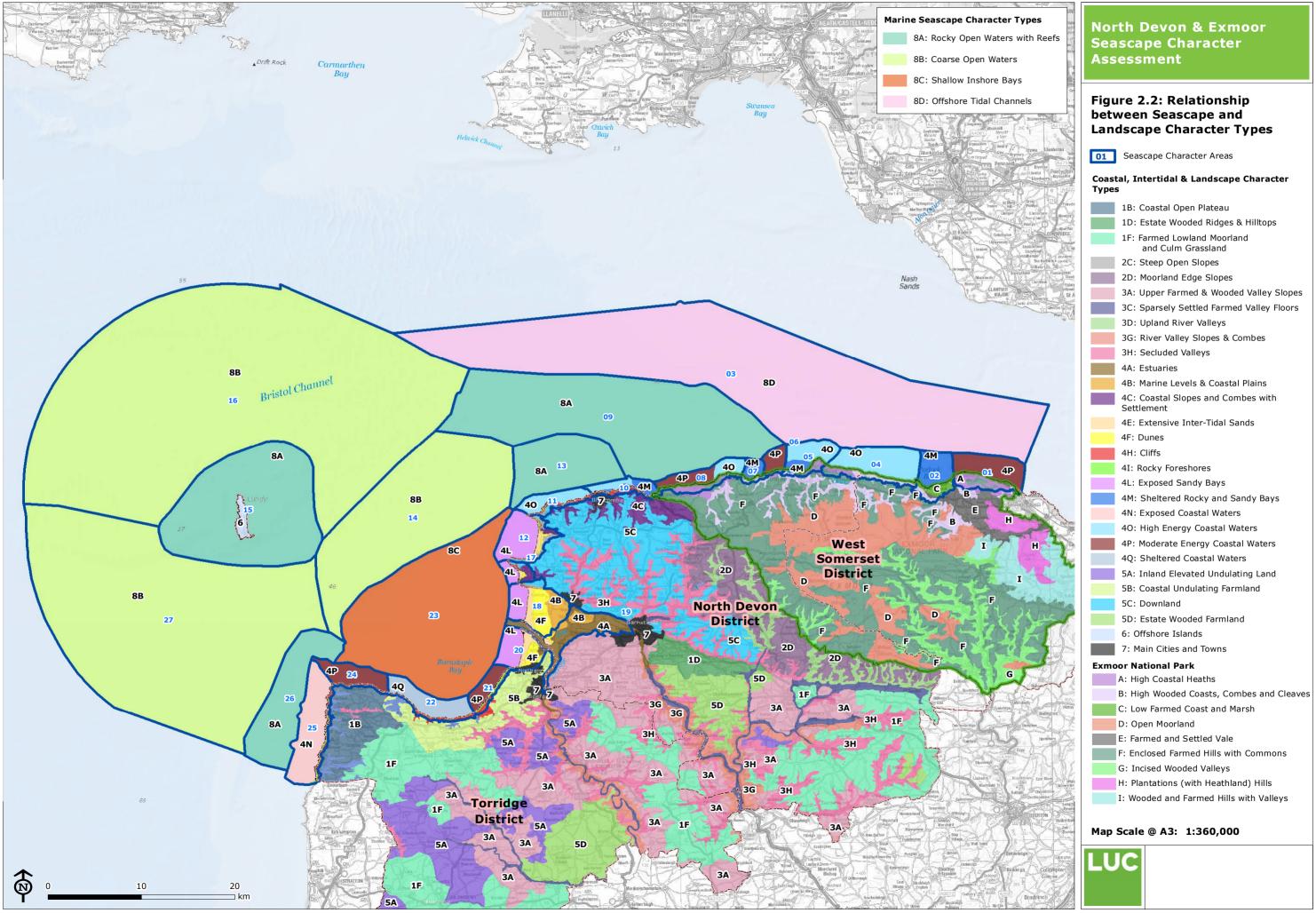
Individual consultations

2.32 In addition to the workshops, individual comments were also received. A full list of people and organisations that have provided input into this study is included at **Appendix 3.**

Final classification and reporting

2.33 With further guidance by the Steering Group, information from the desk study, field survey and workshops was used to generate the final seascape classification and preparation of the written SCA profiles, presented in Chapters 4 and 5 respectively.







3 Overview of character and the visual resource provided by the North Devon and Exmoor seascape

Introduction to this chapter

- 3.1 This chapter presents an overview of seascape character for the study area as a whole, including a series of thematic maps which help to illustrate the natural and cultural influences that contribute to character.
- 3.2 An overview of the visual resource provided by the North Devon and Exmoor seascapes is also provided, showing the important visual relationships between land and sea also key to character and sense of place. The chapter ends with a summary of the final classification of the study area into Seascape Character Areas and Seascape Character Types.

Overview of seascape character

3.3 The seascape of the Bristol Channel and Atlantic approaches is a unique resource. The coast of North Devon and Exmoor forms one of the most valued coastlines in England with some 90 contiguous miles designated as National Park or AONB, as well as four Heritage Coasts including the unique stand-alone Heritage Coast at Lundy. Of this coastline more than two-thirds is in National Trust ownership, managed for its conservation importance as well as the opportunities it provides for public access and enjoyment. The natural beauty on which the designations are founded is represented by special qualities, many of which rely on the interaction of land and sea – see page 14 of the North Devon

- AONB Management Plan (2014-19)⁸ and page 5 of the Exmoor National Park Partnership Plan (2012-17)⁹.
- 3.4 The importance of the seascape is also highlighted in the terrestrial landscape character assessments, which highlight the important sea views, both framed and panoramic, as well as the special perceptual qualities of wildness and remoteness that this rugged, exposed Atlantic coast edge engenders. These are seascape of great diversity and contrast.
- 3.5 With the second largest tidal range in the world in the Bristol Channel, and large parts open to the offshore winds, Atlantic swell and strong tidal streams, the marine environment (including the open waters, the seabed and intertidal areas) has a unique character of its own, created by the interaction of both natural and cultural influences.
- 3.6 The study area includes an enormously varied coastline, a significant proportion of which is dominated by high, rugged cliffs populated by colonies of seabirds, including the highest cliffs in England which run along the West Exmoor coast. Distinctive geomorphological features including cliff faces and headlands display dramatic geological strata and sharply angled formations; punctuated by small coves, sea caves, waterfalls and often extensive rocky foreshores and wave-cut platforms. Many of these coastal features provide important habitats supporting nationally scarce and rare species. Cliff-top maritime grassland and heathland, with its characteristic waved appearance is a distinctive seasonally changing feature over much of the area, as are the steep sessile oak wooded cliffs that drop to the sea at Clovelly and the eastern Exmoor coast, including the aptly named Woody Bay.
- 3.7 The exposed areas of the coast, subject to the powerful winds and storms from the Atlantic, contrast with more sheltered sections in the lee of Hartland Point, and along the enclosed Bristol Channel as well as the unique estuarine environment of the Taw Torridge estuary. The extensive internationally designated sand dune systems as at Braunton Burrows form one of the largest intact dune sites in Britain; the associated intertidal sand, mud flats and saltmarshes fringing the estuary of significant national importance for the overwintering and migratory populations of wading birds

⁸ https://www.dropbox.com/s/ytzu8b2d9kjovfv/Management%20Plan%202014-19.pdf?dl=0

⁹ https://www.exmoor-nationalpark.gov.uk/about-us/press-room/press-room/news-2015/launch-of-newational-park-partner-scheme

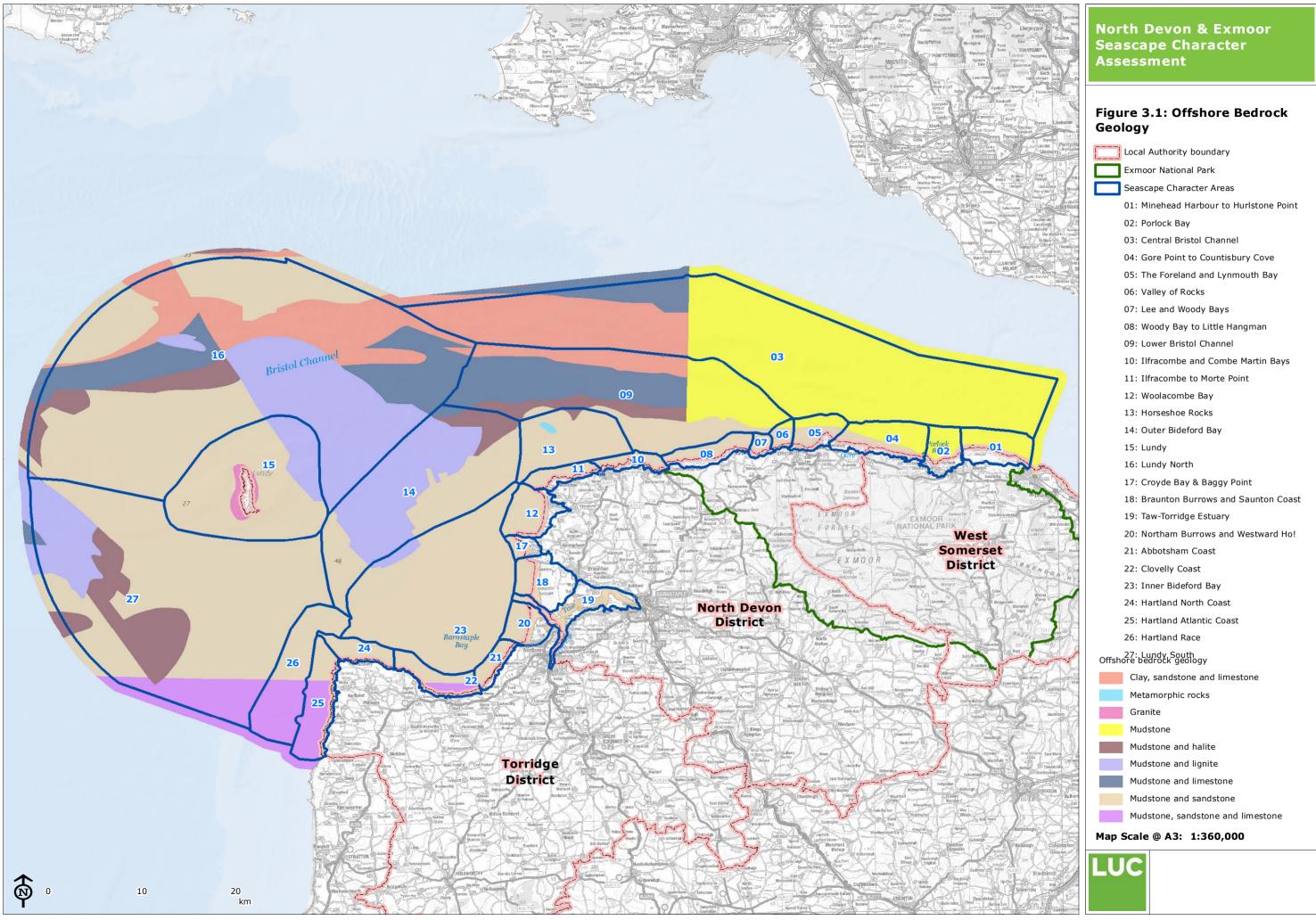
they support. This area is the core of the North Devon UNESCO Biosphere Reserve – one of only three sites in England to have been awarded this international biodiversity designation, which also extends offshore to include a large proportion of the study area (see **Figure 3.4**). Expansive sandy beaches at Westward Ho!, Saunton, Woolacombe and Croyde are major tourist draws, attracting large numbers of visitors who come for beach holidays and to surf. The whole length of coast is crossed by the South West Coast Path, offering unrivalled opportunities to appreciate expansive and ever-changing coastal and maritime views – often featuring the iconic, mysterious form of Lundy Island.

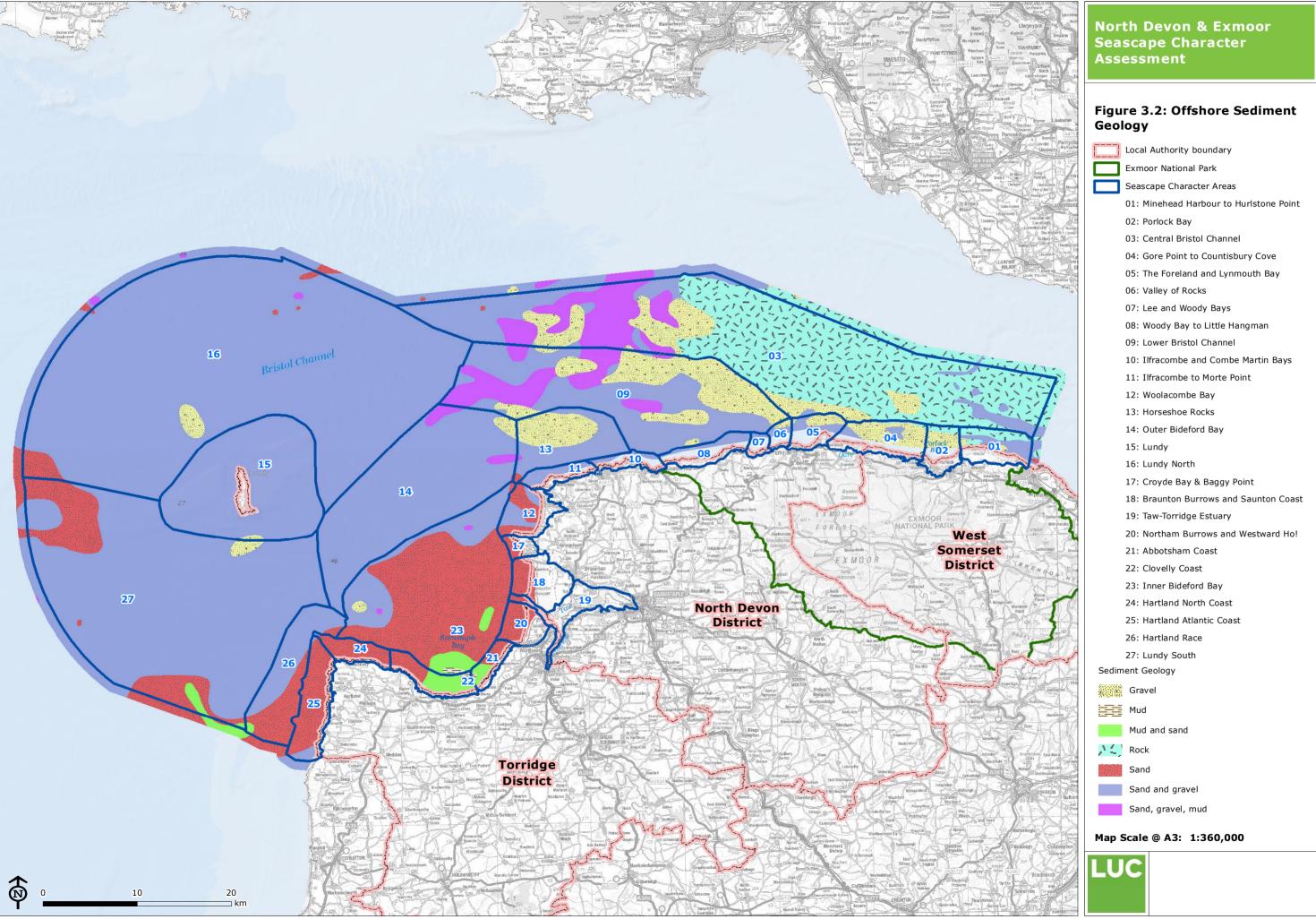
- The marine area is equally recognised at a national and international level for its rich and varied biodiversity. Lundy was the first voluntary Marine Nature Reserve in the UK, designated in 1971, moving on to become the first Marine Conservation Zone to be designated by Defra in 2013. The island's clear waters, colourful coral reefs, resident population of grey seals and diverse seabird population (including the emblematic puffin) are also central to its designation as a marine Special Area of Conservation (SAC) and Site of Special Scientific Interest (SSSI). Other Recommended MCZs have been identified within the study area: Bideford to Foreland Point: North of Lundy and Morte Platform¹⁰, reflecting the high diversity of marine life present in these areas. The high energy intertidal rocks, subtidal habitats of bedrock and biogenic reefs, as well as expansive areas of dynamic sediments and circalittoral rock support important and rare faunal and infaunal communities. Frequent sitings of dolphins, harbour porpoises, seals and even basking sharks and orcas are testament to the biodiverse seas; as well as being a delight to the lucky onlookers who manage to spot them.
- 3.9 The rich waters also support commercially and recreationally important fishing and potting grounds; a strong fishing heritage closely associated with the character of the area. These include the main commercial fleets at Ilfracombe, Appledore and Bideford; as well as the historic fishing harbours such as at Lynmouth and Clovelly. New technologies are also exploring the area's natural resources; the strong tidal flows of the Bristol Channel (with the second highest tidal range in the world) seeing pioneering research into new renewable energy technologies. This Seascape

Character Assessment will help future developments of this kind consider the special qualities of the seascape in their design and planning stages.

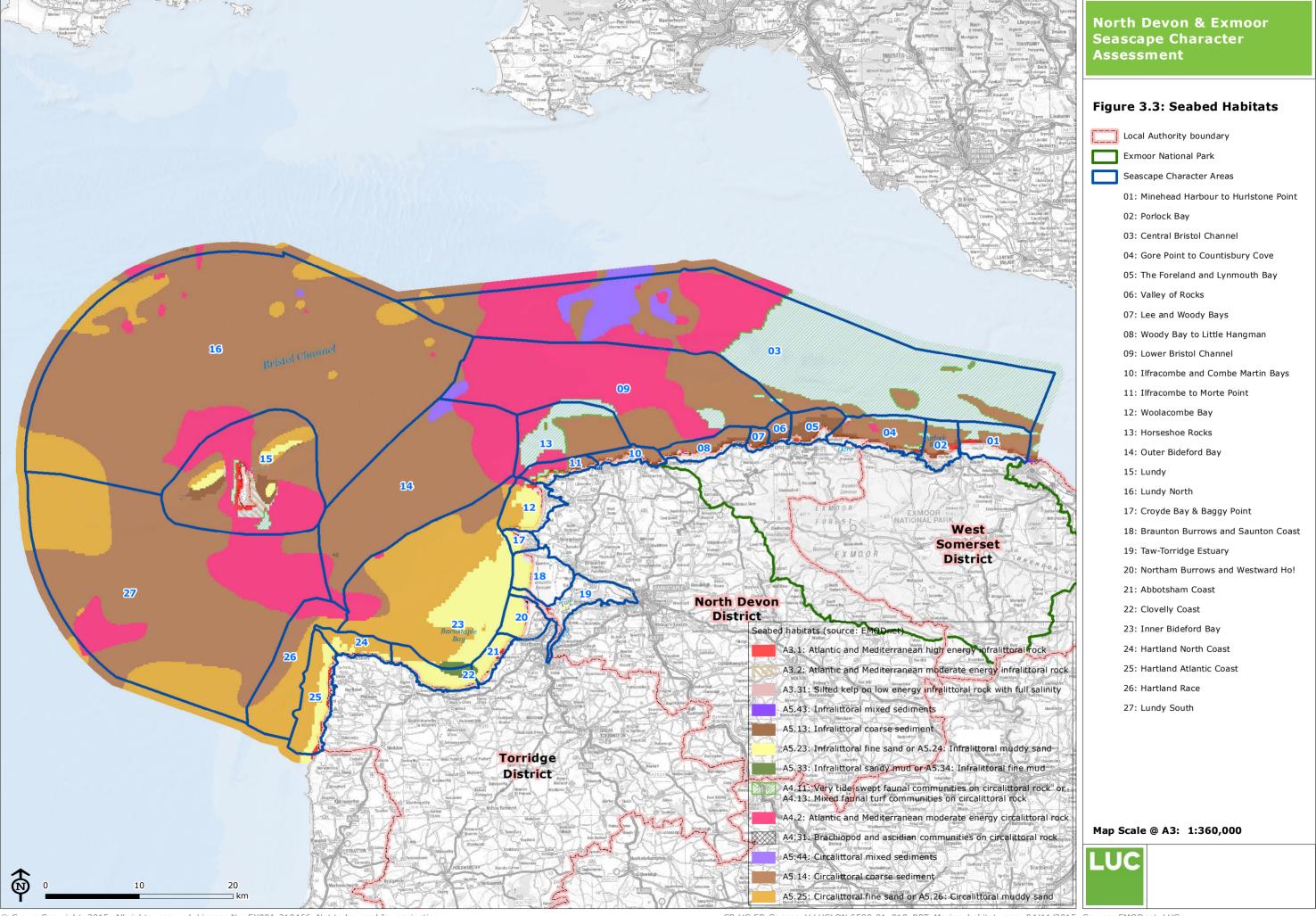
- 3.10 The deeper waters of the central Bristol Channel are of strategic significance; Bristol was once the second most important port after London, with historic trading links to Spain and Portugal, the Baltic States, North Africa, Mediterranean and the point of departure for exploration to the west, and West Africa. The channel continues to provide internationally significant marine transport links and routes to port facilities including at Avonmouth. Smaller ports at Bideford, Appledore and Ilfracombe also form important cultural links with the sea with their traditional shipbuilding and fishing industries.
- 3.11 The seascape is rich in heritage and archaeological sites, both on the coast and offshore. Evidence of ancient palaeo-environments range from the submerged ancient forest at Westward Ho! and prehistoric and Roman organic features preserved in anaerobic mud, to relict palaeochannels of the former River Severn plain in the central Bristol Channel, as well as the many shipwrecks now explored by divers and forming artificial reefs for fish. Abundant nautical landmarks including lighthouses, seamarks, lifeboat stations, piers, limekilns and small historic harbours, reveal much about past maritime activity.
- 3.12 **Figures 3.1 to 3.5** present a flavour of the natural and cultural influences shaping seascape character of the Study Area, presented against the framework of Seascape Character Areas for context (showing how patterns of influence shaped the spatial classification).

 $^{^{10}}$ Please note that the exact boundaries of the recommended MCZs, and likelihood of designation in the next tranche, are not known at the time of writing.

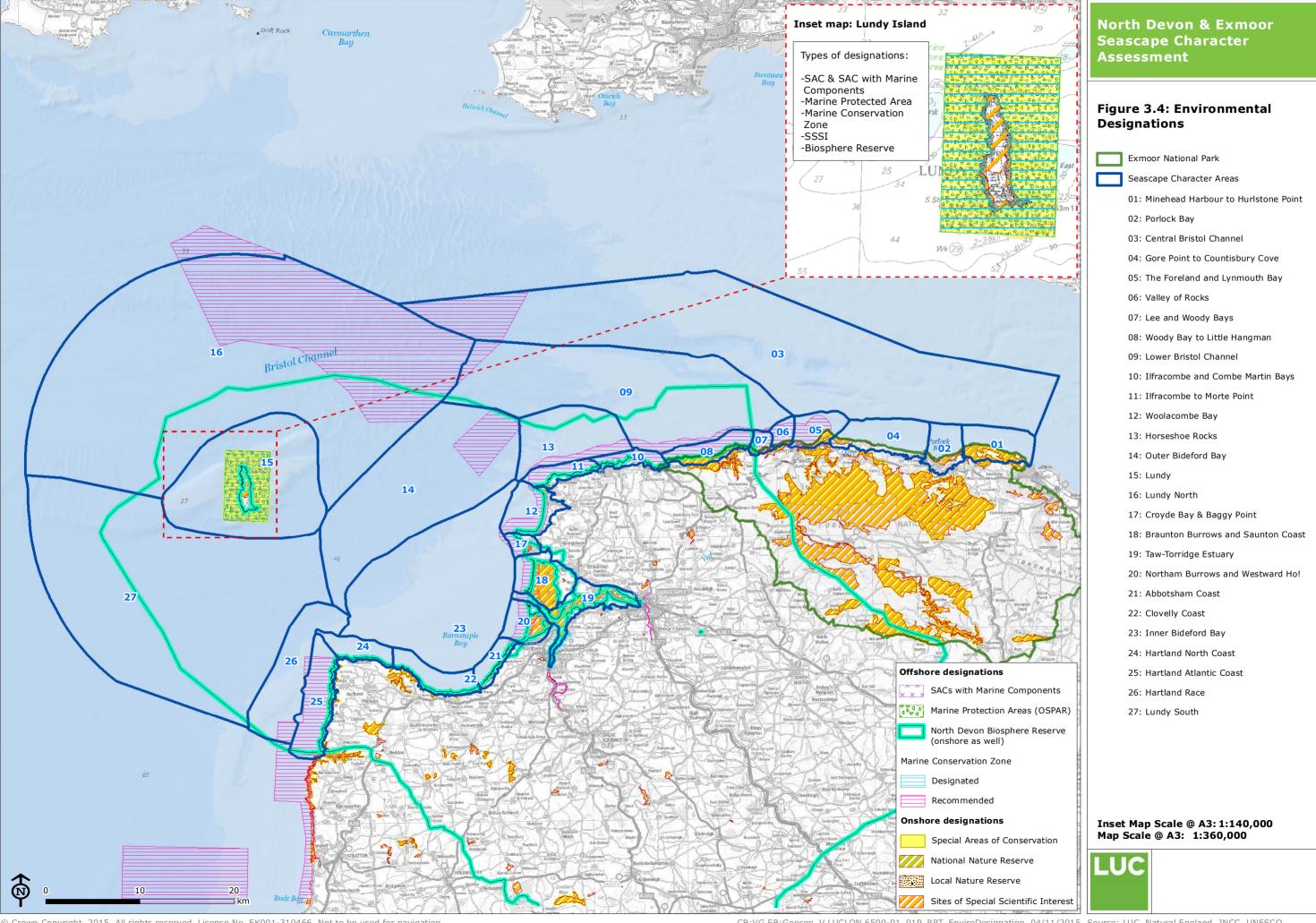




Sources: Esri, GEBCO, NOAA, National Geographic, DeLorme, HERE, Geonames.org, and other contributors

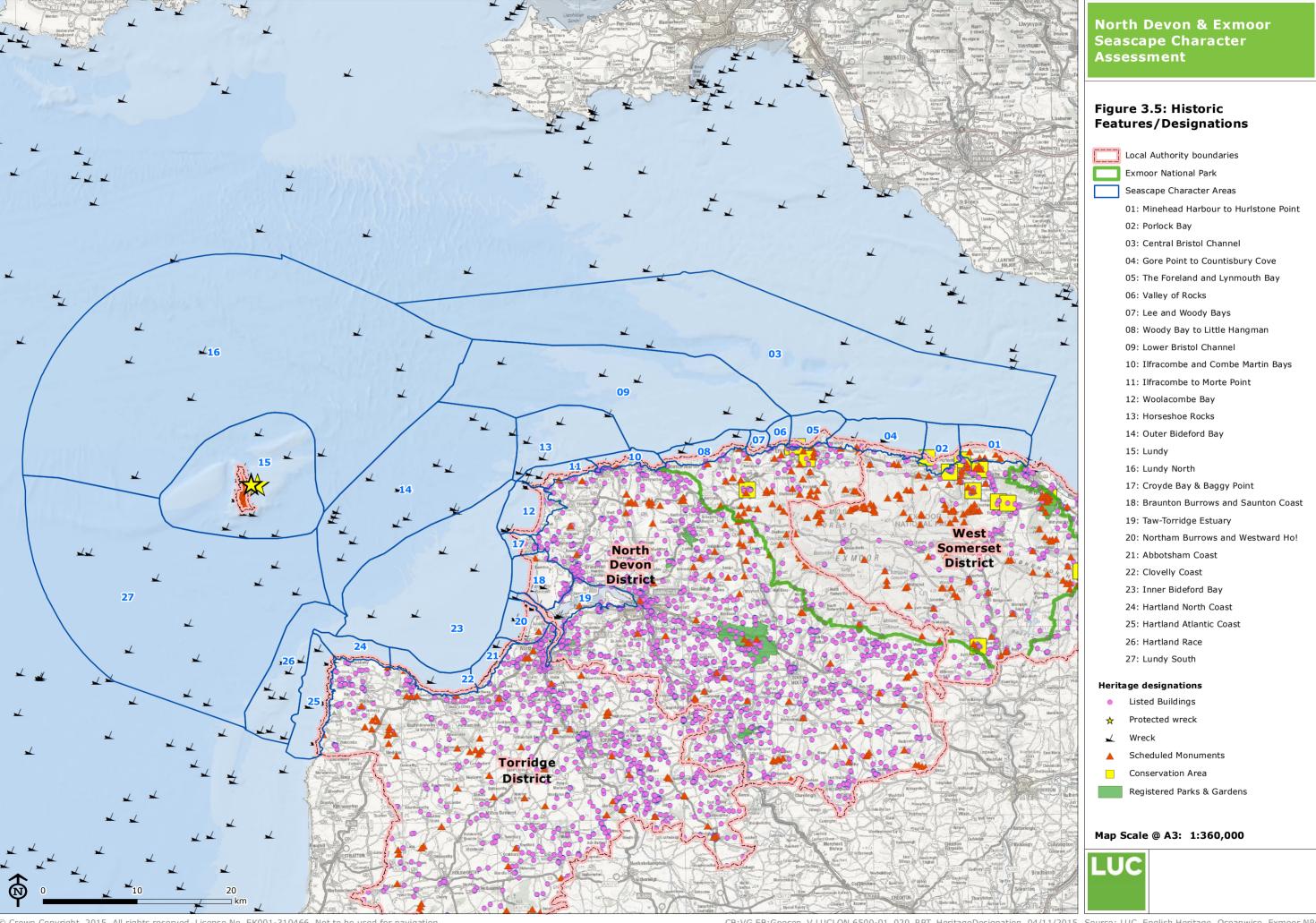


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Understanding the visual resource provided by the North Devon and Exmoor seascape

Aim

- 3.13 The aim of this element of the Seascape Character Assessment is to provide an objective assessment of the visual resource that the sea provides within the study area. This seeks in particular to account for the definition of 'seascape', as set out in the UK Marine Policy Statement 2011, which states that "...references to seascape should be taken as meaning landscapes with views of the coast or seas, and coasts and the adjacent marine environment..." (emphasis added).
- 3.14 The approach taken to the Visual Resource Mapping (VRM) replicates the method developed by the MMO in England for the Seascape Assessment for the South Marine Plan Areas (2014). A technical explanation of the methodology employed to generate the VRM for this study can be found in Chapter 3 of the technical report produced by LUC for the Seascape Assessment of the South Marine Plan Areas (MMO, 2014)¹¹. Chapter 3 in the MMO's report also includes contextual background on development of the VRM approach which may be of additional interest to readers.
- 3.15 This section summarises the processes used in generating the VRM outputs for this study. This is to aid interpretation of the mapping included in this report rather than replicate the full methodology as described in the MMO's publication.

Mapping views of the study area from the surrounding land

3.16 **Figure 3.6** maps areas of land in terms of their views of the study area offshore from the High Water Mark. A Digital Elevation Model (DEM) of the land and sea surface was generated in GIS using Ordnance Survey Terrain50 data with a 50m resolution.

Observation points were placed on the sea surface within the SCAs. A viewshed calculation was run in GIS identifying (for every location on the DEM) where a viewer at 2m height above ground

level would see the observation points (i.e. the sea surface). This generates a layer where the higher the value of the cell, the greater the number of observation points it can see and therefore, the greater the extent of sea views.

3.17 The resultant data has been classified into quintiles. When interpreting the maps, the darker shading (blues) indicate land from where more of the study area is visible. Lighter shades (yellows) indicate that there are views of the SCAs from those locations, but they are not extensive.

Mapping the visibility of the sea surface

- 3.18 **Figure 3.7** maps the visibility of the sea surface from land within 20km of the High Water Mark. A Digital Elevation Model (DEM) of the land and sea surface was generated in GIS using Ordnance Survey Terrain50 data with a 50m resolution. This was resampled to a resolution of 100m in order to aid processing. Observation points were placed on land within England and Wales up to 20km from the High Water Mark. A viewshed calculation was run in GIS identifying (for every location on the sea surface DEM) how many observation points on land that each grid cell in the sea can 'see'. Put another way, this means that grid cells with high values in the sea can be seen by many viewers on land and are therefore more 'visible' to viewers on land.
- 3.19 The resultant data has been classified into percentiles in order to highlight those locations on the sea surface within the study area that are most visible from land. The darker reds indicate locations on the sea surface that can be seen from the most locations on land (up to 20km from the High Water Mark), and the darker blues indicate parts of the sea surface that are visible from the least number of locations on land.
- 3.20 Additionally, in order to gain a better understanding of where the most extensive views of the study area can be found on land, observation points were banded into the following distances from the High Water Mark (HWM) and viewsheds were rerun for each distance band:
 - 0-1km above the HWM
 - 1-5km above the HWM

¹¹ https://www.gov.uk/government/publications/seascape-assessment-for-the-south-marine-plan-areas-mmo-1037

- 5-10km above the HWM
- 10-20km above the HWM
- 3.21 The resultant maps are shown at **Figure 3.8**, illustrating the visual relationship between the North Devon and Exmoor seascape and the surrounding landscapes (e.g. do viewers immediately adjacent to the coast (0-1km from the High Water Mark) have more extensive views than those further inland (10-20km away)?).

Visual Resource Mapping at the Seascape Character Area (SCA) level

3.22 Further mapping is presented at the SCA level to explore which locations on land have views of each SCA. These maps were generated by placing observation points within each of the SCAs and rerunning the viewsheds in GIS as described above. The resultant maps have been at the end of each SCA profile, included in Chapter 5.

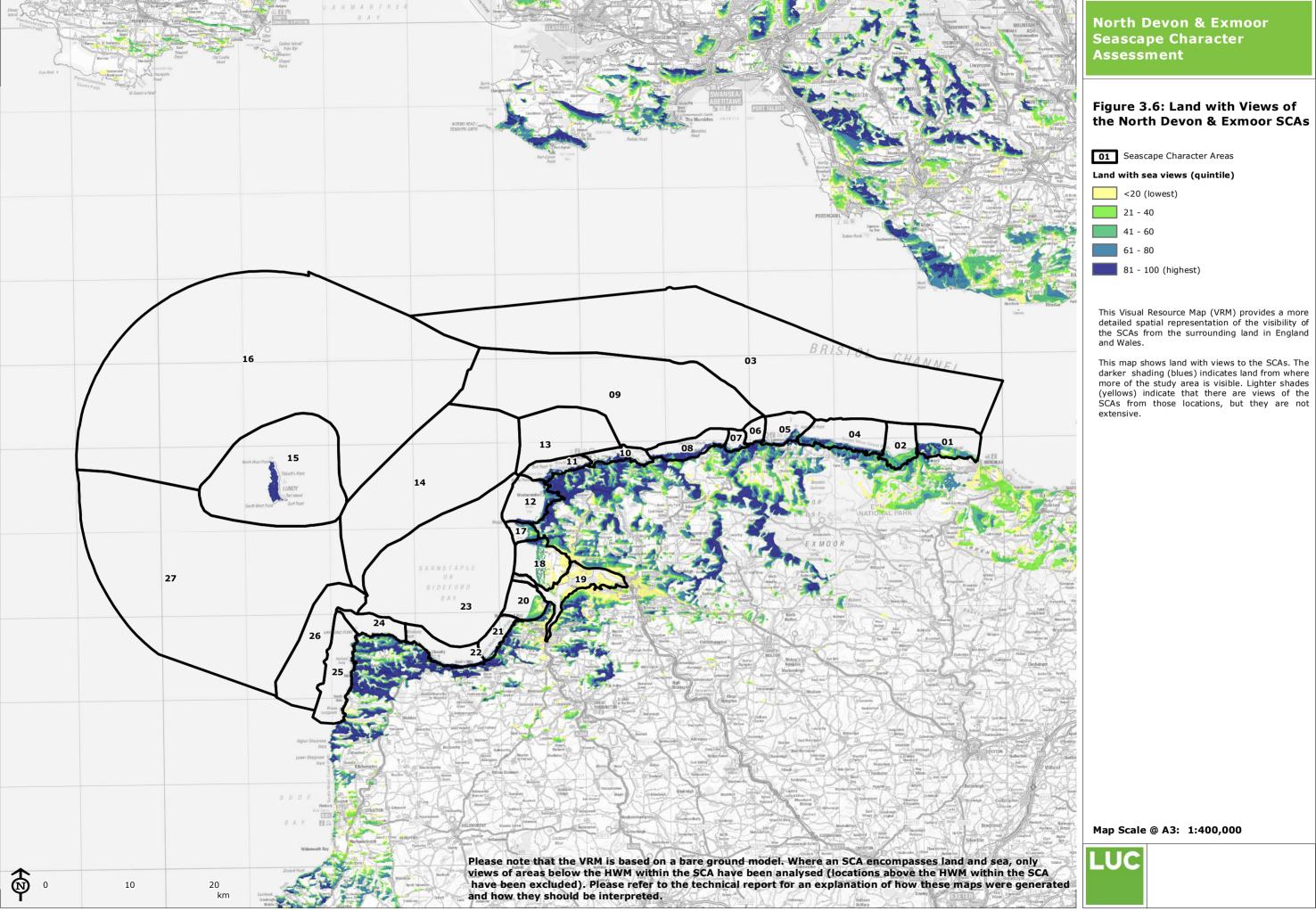
Overall patterns

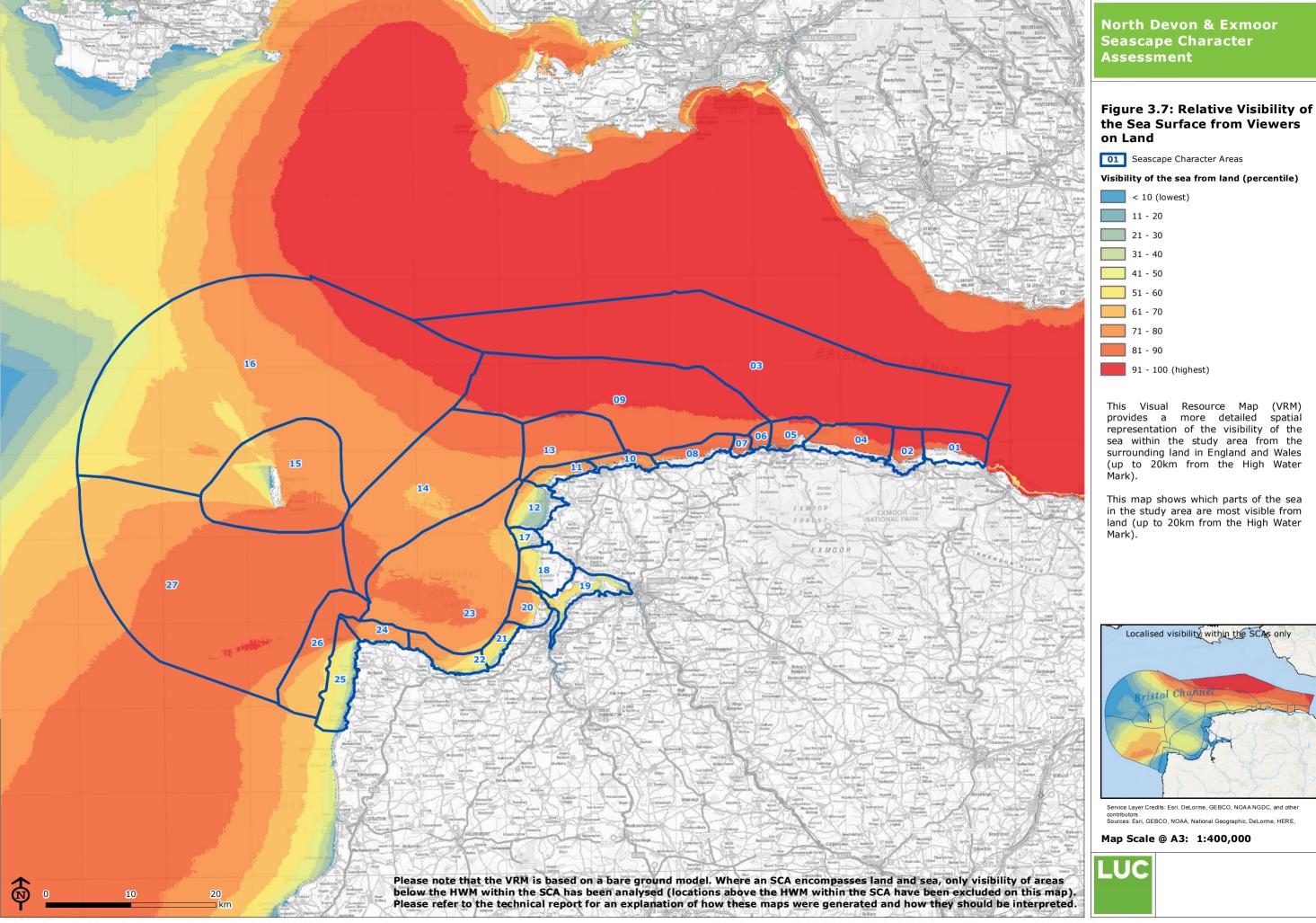
- 3.23 The VRM indicates that parts of the study area most visible from land in England and Wales include the central Bristol Channel (including SCAs 03 and 09). The inshore waters along the northfacing Exmoor Coast (SCAs 01, 02, 04, 05, 06, 07 and 08), the southern area of Bideford Bay (SCA 23), the waters offshore of Hartland Point (SCA 26) and the open waters south of Lundy (SCA 27) are all also highly visible. The mapping indicates more visually contained areas such as at Woolacombe Bay (SCA 12), the inshore waters along the eastern extents of the Clovelly Coast (SCA 22) and the Abbotsham Coast (SCA 21) and to the west of the Hartland promontory (SCA 25), where the surrounding cliffs and headlands limit views in from wider areas. The waters immediately west of Lundy area also in the visual 'shadow' of the island in relation to views from the English and Welsh coasts. Visibility begins to diminish to the west of Lundy, at the outer reaches of the Bristol Channel as the distance of the open water from land increases.
- 3.24 The mapping of sea surface visibility indicates that extensive areas of elevated land inland of the study area also experience views of the SCAs, particularly the Hartland Plateau, the North Devon Downs between Saunton Down and Combe Martin Bay and the

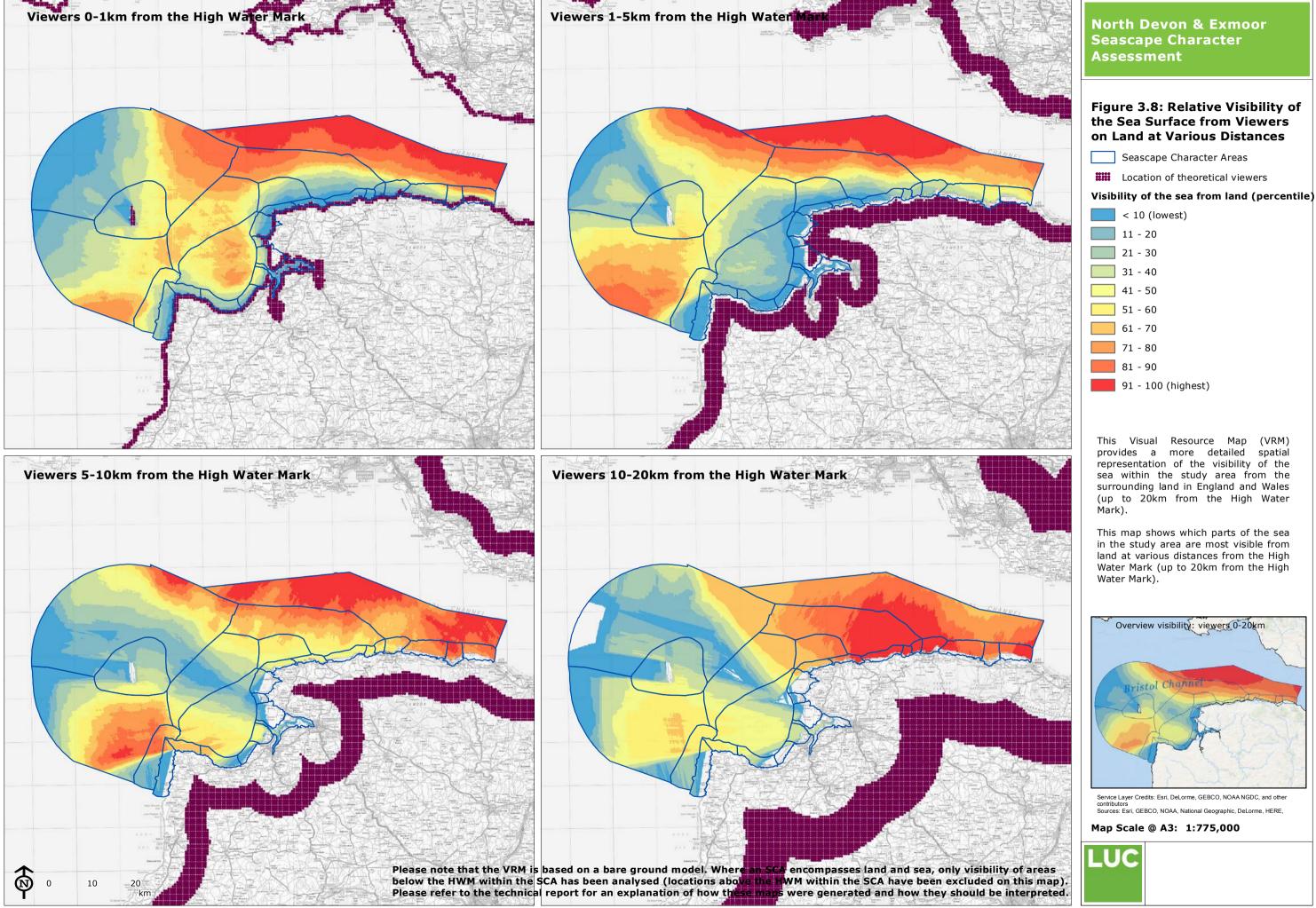
- western extents of Exmoor (some 20km inland at the furthest point from the coast). Generally, the immediate coastal edges all afford extensive views over the study area, with the exception of some of the very low-lying and flat beaches, such as at Northam Burrows where visibility is moderate rather than extensive. Almost all of Lundy is also indicated as an area with extensive views across the seascape.
- 3.25 Areas with limited views across the study area include the flat and visually contained areas within the Taw/Torridge Estuary and Braunton Marsh, although localised elevated areas within the dunes allow far reaching views out to the west. Within the incised combes that punctuate the coast and extend inland, seaward views are often channelled, limited by the local topography.

Key limitations

- 3.26 The following key limitations should be borne in mind when interpreting the VRM outputs:
 - They **do not include any judgements** of the quality (or 'amenity') of views or viewpoints. Similarly the location of centres of population has not been added into the model.
 - The maps represent a **bareground scenario**, so the results will be an over-representation of views, as many could in reality be blocked by surface features (such as buildings and vegetation) not included in the model.
 - The maps do not represent a particular development scenario; instead indicating key patterns of the visibility of the sea surface at a strategic scale. It is not appropriate for these maps to be used to assess the visual impacts of particular developments. Structures rising above the sea surface, such as wind turbines, would be more visible given their extra height and would therefore result in a different pattern of visibility.









4 The Seascape Character Assessment classification

- 4.1 The seascape of North Devon and Exmoor is made up of multiple interests and values which require sensitive and integrated management. This diversity and variety is represented in this Seascape Character Assessment by the classification of 27 Seascape Character Types (SCTs) and 27 Seascape Character Areas (SCAs). These are shown at **Figures 4.1 to 4.4** and listed out at **Table 4.1** below.
- 4.2 Table 4.1 also shows the relationship with the adjacent Landscape Character Assessment classifications, with the third column listing any SCTs that continue as Landscape Character Types beyond the Seascape Character Area boundary. This relationship is also illustrated at previous **Figure 2.2**).
- 4.3 The full SCA profiles that follow in Chapter 5 also include detailed maps showing their component SCTs for further reference between the two units. Generic key characteristics for all Seascape Character Types are included at **Appendix 2**.

Table 4.1: Seascape Character Areas showing their component Seascape Character Types and links to the surrounding Landscape Character Assessment classifications

	Seascape Character Area Number/ Name		nent Seascape Character Types	Character Types extending inland beyond the SCA boundary	Adjoining Exmoor / Devon Character Areas
	Minehead Harbour to	A B	High Coastal Heaths High Wooded Coasts, Combes and Cleaves		A4: North Hill B6: Culver Cliff
1	Hurlstone Point	E F 4P	Farmed and Settled Vale Enclosed Farmed Hills with Commons Moderate Energy Coastal Waters	N/A	E1: Porlock-Dunster-Minehead F1: Northern
2	Porlock Bay	B C E 4M	High Wooded Coasts, Combes and Cleaves Low Farmed Coast and Marsh Farmed and Settled Vale Sheltered Rocky and Sandy Bays	B: High Wooded Coasts, Combes and Cleaves	B4: Culbone-Horner C1: Porlock
3	Central Bristol Channel	8D	Offshore Tidal Channels	N/A	N/A
4	Gore Point to Countisbury Cove	A B	High Coastal Heaths High Wooded Coasts, Combes and Cleaves	F: Enclosed Farmed Hills with Commons	A3: The Foreland B4: Culbone-Horner F1: Northern
		F 40	Enclosed Farmed Hills with Commons High Energy Coastal Waters		ri: Northem

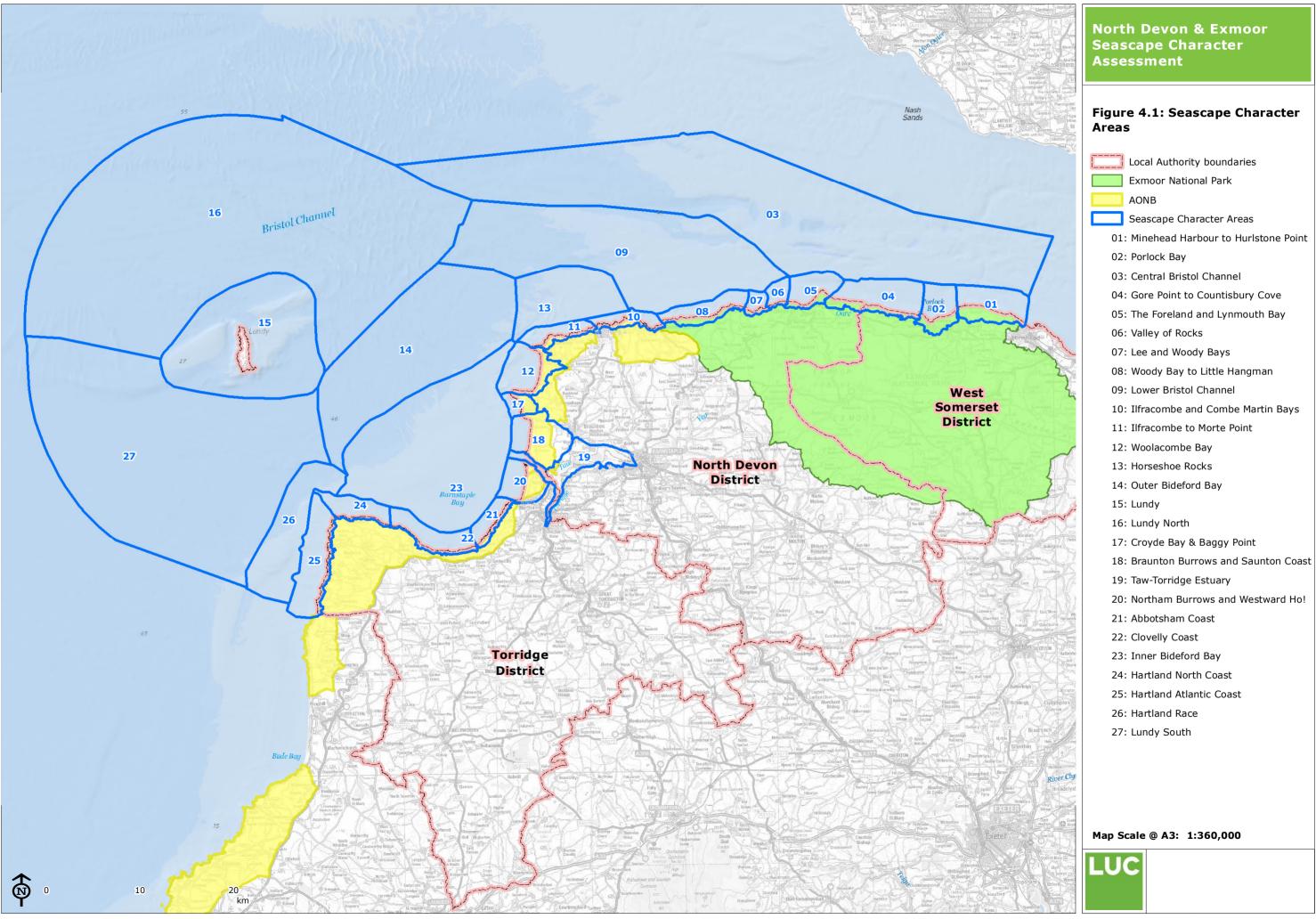
Seascape Character Area Number/ Name		Compo	nent Seascape Character Types	Character Types extending inland beyond the SCA boundary	Adjoining Exmoor / Devon Character Areas	
		Α	High Coastal Heaths			
		В	High Wooded Coasts, Combes and Cleaves	A: High Coastal Heaths F: Enclosed Farmed Hills	A3: The Foreland B3 Lyn	
5	The Foreland and Lynmouth Bay	F	Enclosed Farmed Hills with Commons	with Commons		
		4M	Sheltered Rocky and Sandy Bays	B: High Wooded Coasts, Combes and Cleaves	F1: Northern	
		40	High Energy Coastal Waters			
<i>c</i>	Valley of Books	А	High Coastal Heaths	A. High Constal Hoothe	A2. Valley of Docks	
6	Valley of Rocks	4P	Moderate Energy Coastal Waters	A: High Coastal Heaths	AZ. Valley UI KUCKS	
		В	High Wooded Coasts, Combes and Cleaves	B: High Wooded Coasts, Combes and Cleaves	R2: Woody Ray	
7	Lee and Woody Bays	F	Enclosed Farmed Hills with Commons	F: Enclosed Farmed Hills	F1: Northern	
		4M	Sheltered Rocky and Sandy Bays	with Commons	B2: Woody Bay F1: Northern	
		А	High Coastal Heaths			
8	Woody Bay to Little	F	Enclosed Farmed Hills with Commons	A: High Coastal Heaths	B3 Lyn F1: Northern A2: Valley of Rocks B2: Woody Bay F1: Northern A1: Holdstone Down & Trentishoe F1: Northern N/A A1: Holdstone Down & A	
0	Hangman	40	High Energy Coastal Waters	F: Enclosed Farmed Hills		
		4P	Moderate Energy Coastal Waters			
9	Lower Bristol Channel	8A	Rocky Open Waters with Reefs	N/A	N/A	
10	Ilfracombe and Combe	А	High Coastal Heaths	4C: Coastal Slopes and Combes with Settlement	A1: Holdstone Down &	
10	Martin Bays	F	Enclosed Farmed Hills with Commons		Trentishoe	

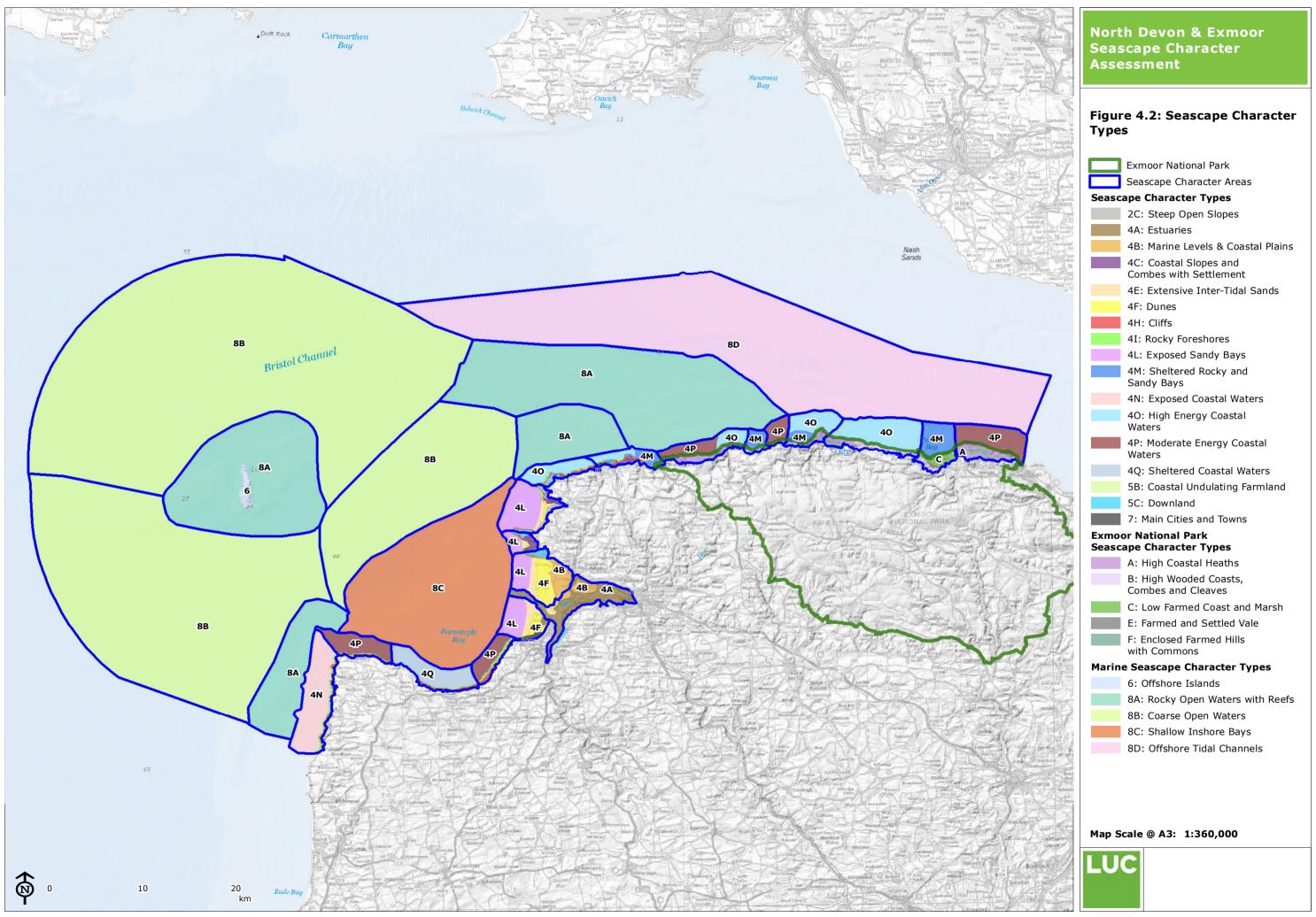
	Seascape Character Area Number/ Name		nent Seascape Character Types	Character Types extending inland beyond the SCA boundary	Adjoining Exmoor / Devon Character Areas
		4C	Coastal Slopes and Combes with Settlement		F1: Northern North Devon High Coast
		4H	Cliffs		
		4I	Rocky Foreshores		
		40	High Energy Coastal Waters		
		4M	Sheltered Rocky and Sandy Bays		
		7	Main Cities and Towns		
		2C	Steep Open Slopes	2C: Steep Open Slopes 4C: Coastal Slopes and Combes with Settlement 5C: Downland	North Devon High Coast
11	Ilfracombe to Morte Point	4C	Coastal Slopes and Combes with Settlement		
		4H	Cliffs		
		4I	Rocky Foreshores		
		40 High Energy Coa	High Energy Coastal Waters		
		5C	Downland		
		2C	Steep Open Slopes		
12		4C	Coastal Slopes and Combes with Settlement	4C: Coastal Slopes and	North Devon Coastal Downs
	Woolacombe Bay	4E	Extensive Inter-Tidal Sands	Combes with Settlement 5C: Downland	
		4F	Dunes		
		4H	Cliffs		

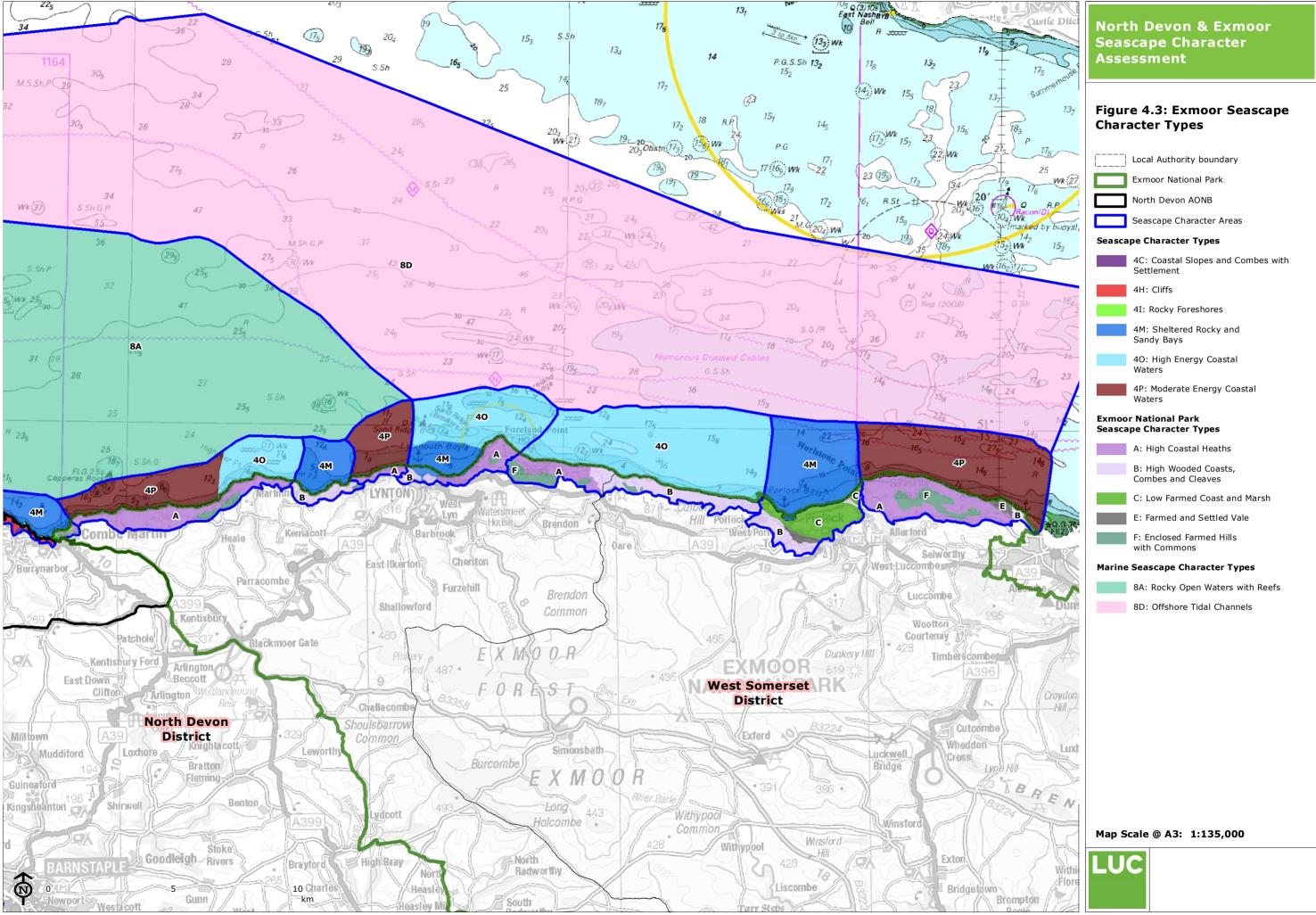
Seascape Character Area Number/ Name		Compo	nent Seascape Character Types	Character Types extending inland beyond the SCA boundary	Adjoining Exmoor / Devon Character Areas
		4I	Rocky Foreshores		
		4L	Exposed Sandy Bays		
		5C	Downland		
13	Horseshoe Rocks	8A	Rocky Open Waters with Reefs	N/A	N/A
14	Outer Bideford Bay	8B	Coarse Open Waters	N/A	N/A
15	Lundy	6	Offshore Islands	- N/A	N/A
15	Lundy	8A	Rocky Open Waters with Reefs	N/A	
16	Lundy North	8B	Coarse Open Waters	N/A	N/A
		4C	Coastal Slopes and Combes with Settlement		
		4E	Extensive Inter-Tidal Sands		
		4F	Dunes	4C: Coastal Slopes and	
17	Croyde Bay & Baggy Point	4H	Cliffs	Combes with Settlement 5C: Downland	North Devon Coastal Downs
		41	Rocky Foreshores		
		4L	Exposed Sandy Bays		
		5C	Downland		
		2C	Steep Open Slopes	4B: Marine Levels and Coastal Plains 5C: Downland	Taw-Torridge Estuary
18	Braunton Burrows and Saunton Coast	4B	Marine Levels & Coastal Plains		(North Devon Coastal Downs –
		4E	Extensive Inter-Tidal Sands		adjacent to N)

	Seascape Character Area Number/ Name		nent Seascape Character Types	Character Types extending inland beyond the SCA boundary	Adjoining Exmoor / Devon Character Areas
		4F	Dunes		
		4H	Cliffs		
		41	Rocky Foreshores		
		4L	Exposed Sandy Bays		
		5C	Downland		
		4A	Estuaries		
19	Taw-Torridge Estuary	4B	Marine Levels & Coastal Plains	4A: Estuaries	Taw-Torridge Estuary
19	raw-ronninge Estuary		Extensive Inter-Tidal Sands	TA. Estudiles	
		4F	Dunes		
		4A	Estuaries	-	
		4E	Extensive Inter-Tidal Sands		
		4F	Dunes	4A: Estuaries	Taw-Torridge Estuary
20	Northam Burrows and Westward Ho!	41	Rocky Foreshores	5B: Coastal Undulating Farmland	Bideford Bay Coast
		4L	Exposed Sandy Bays	7: Main Cities and Towns	
		5B	Coastal Undulating Farmland		
		7	Main Cities and Towns		
21	Abbotsham Coast	4H	Cliffs	4H: Cliffs (relating to a small enclosed combe behind the cliff edge)	Bideford Bay Coast
21	Abbotsham Coast	4I	Rocky Foreshores		Taw-Torridge Estuary

	Seascape Character Area Number/ Name		nent Seascape Character Types	Character Types extending inland beyond the SCA boundary	Adjoining Exmoor / Devon Character Areas
		4P	Moderate Energy Coastal Waters	5B: Coastal Undulating Farmland	
		5B	Coastal Undulating Farmland		
		4H	Cliffs	N/A	Bideford Bay Coast
22	Clovelly Coast	41	Rocky Foreshores		
		4Q	Sheltered Coastal Waters		
23	Inner Bideford Bay	8C	Shallow Inshore Bays	N/A	N/A
		4H	Cliffs		
24	Hartland North Coast	41	Rocky Foreshores	N/A Hartland Peninsula	Hartland Peninsula
		4P	Moderate Energy Coastal Waters		N/A
		4H	Cliffs		Hartland Peninsula
25	Hartland Atlantic Coast	4I	Rocky Foreshores	N/A	
		4N	Exposed Coastal Waters		
26	Hartland Race	8A	Rocky Open Waters with Reefs	N/A	N/A
27	Lundy South	8B	Coarse Open Waters	N/A	N/A



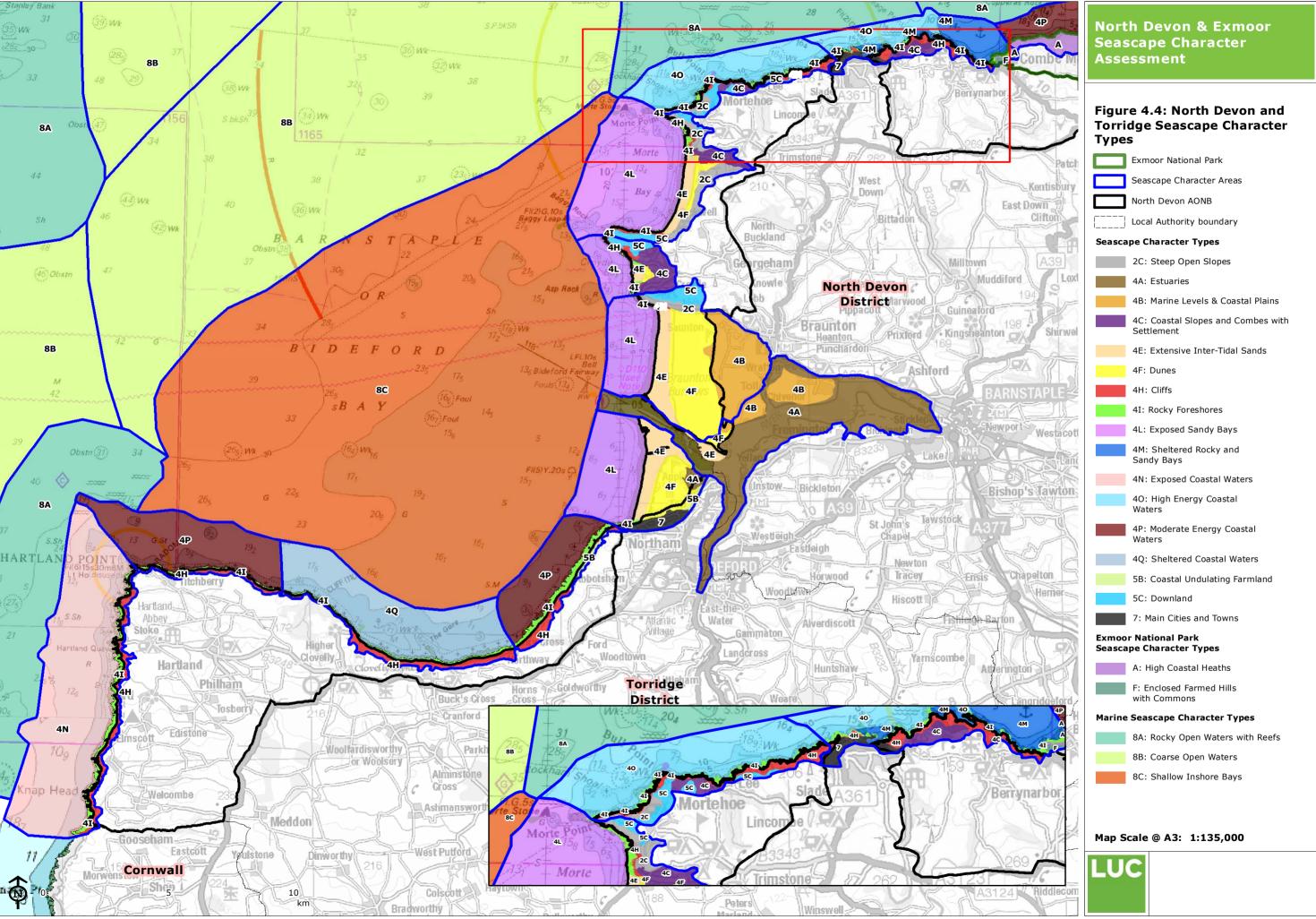




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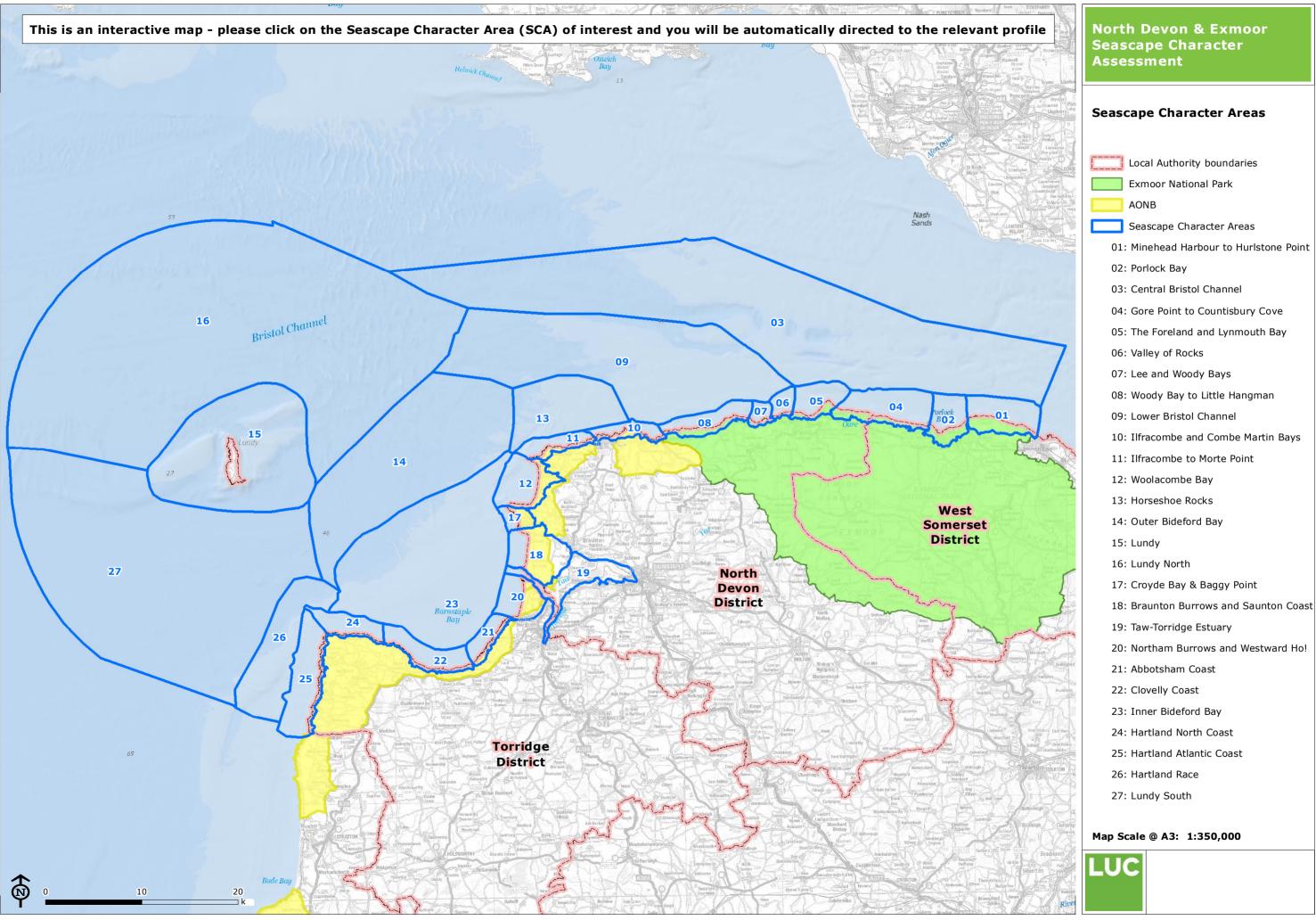


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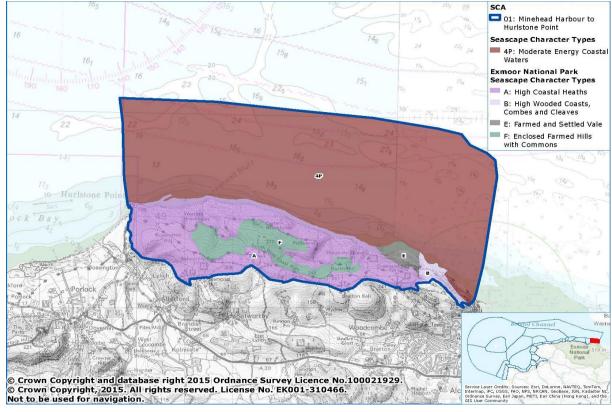
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SCA 1: Minehead Harbour to Hurlstone Point



Click here to return to interactive overview map of the Seascape Character Areas (SCAs)



SCTs within the SCA: A High Coastal Heaths; B High Wooded Coasts, Coombes and Cleaves; E Farmed and Settled Vale; F Enclosed Farmed Hills with Commons; 4P Moderate Energy Coastal Waters.

This is the eastern-most SCA within the study area and is characterised by a strongly articulated landform, with undulating plateaux and rounded moorland hills, steep, rugged cliffs and rocky shores. Offshore the waters are characterised by strong tidal streams and currents and a seabed of dynamic sand and gravel sediments and biogenetic reefs. It contains nationally and internationally designated coastal habitats, including coastal heathlands which support a rich birdlife. It has a long history of maritime trade and onshore there is evidence of ancient settlement at prominent cliff- and hill-top positions. Despite its proximity to busy tourism sites and development at Minehead, the area retains high levels of tranquillity and remoteness.

The SCA's coastal area forms part of the Exmoor National Park and Exmoor Heritage Coast.



Natural / physical influences

- Strongly articulated landform, with undulating plateaux and rounded moorland hills (reaching 308m AOD at Selworthy Beacon) plunging down to steep, rugged cliffs carved by streams cascading to rocky shores.
- Underlain by a solid geology of Lower and Middle Devonian rocks, a varied palette of purples, reds and pinks visible in the coastal cliffs.
- Maximum water depth of 27m, the seabed underlain by Triassic mudstones topped by dynamic sand and gravel sediments and biogenetic reefs further offshore. Variety of fish species including bass, rays, mackerel, congers and codling.
- Cliffs topped by open coastal heathland and moorland. Cliff faces cloaked by varied textures and colours of bracken, woodland, heather and exposed rock with yellow lichens at their bases.
- To the east, Culver Cliff offers a striking wooded backdrop to Minehead Harbour and promenade; the replanted ancient woodlands also of nature conservation interest.
- Nationally and internationally designated coastal habitats including tracts of coastal heathland supporting a rich birdlife, including breeding populations of stonechat, lesser redpoll and Dartford warbler.
- Shoreline defined by shifting banks of grey pebbles and boulders
 interspersed by small patches of brackish water and sand- the largest area being
 Selworthy Sands in the west. Important areas of Sabellaria reef are found
 offshore.
- Strong tidal streams and currents, reaching up to five knots at springs.
 Seafarers advised to only approach the drying harbour of Minehead within two hours of high water due to the significant tidal range characteristic of the wider Bristol Channel.

Cultural and social influences (past and present)

- Evidence for ancient settlement in commanding cliff- and hill-top positions, including cairns, tumuli and the Iron Age defended settlement of Furzebury Brake, a Scheduled Monument.
- Long history of maritime trade and exchange of materials between Minehead and other Bristol Channel ports. Herring fisheries also flourished before port jurisdiction moved to Bridgwater in 1834.
- Nationally important medieval fish weirs preserved in Minehead harbour, further demonstrating centuries of fishing activity.
- **Ruins of the medieval Burgundy Chapel** in a cliffside position overhanging the sea. Theories suggest it was erected in thanksgiving for escape, named after unsuccessful expeditions to Burgundy.

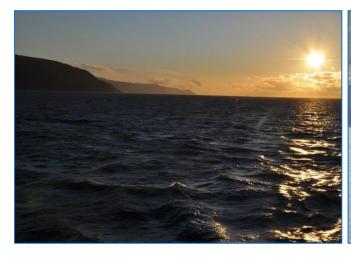
- Old coastguard lookout station on Hurlstone Point, forming a characterful seascape feature. Built in 1900, it also housed a rocket warning signal and rescue equipment, as well as a tall semaphore signalling system.
- Exotic plantings within the woodlands and on the slopes of North Hill date from landscape enhancements undertaken in the 19th century by the Luttrells, of Dunster Castle.
- North Hill and Selworthy Beacon used as armoured vehicle ranges in World War II. Tracks and targets survive on North Hill.
- All of the SCA west of North Hill is owned and managed by the National Trust as part of their Holnicote Estate.
- The inland section of the SCA is a much-visited and much-used recreation destination, in part due to its close proximity to Minehead.
- Steep terrain of the coastal cliffs— the SW Coast Path and 'Rugged Path' traverse the slopes with little or no access to the foreshore. Experienced climbers enjoy the challenge— including the "coastguard wall" on Hurlstone Point.
- SCA used for low-intensity commercial netting and angling, with charter boats operating from Minehead to explore the wider Bristol Channel and Severn Estuary. Minehead is also popular for crabbing.
- Waters crossed by Royal Yacht Association sailing routes and used by the local club at Minehead. Sightseeing cruises on historic vessels also pass through, including the famous Waverley paddle steamer and MV Balmoral.

Perceptual and aesthetic influences

- High levels of tranquillity, remoteness and dark night skies associated with the coastal cliffs and adjacent waters, contrasting with the busier 'honey pot' sites on the moors above and development at Minehead.
- Pockets of bright green improved pasture fields in a regular pattern provide contrasting colour and uniform texture against the naturalistic cliffs of purple, yellow and gold, particularly apparent when viewed from the sea.
- Far-reaching views to the South Wales coast, including the chimney and smoke plumes of Aberthaw Power Station. The sweeping beam of Nash Point Lighthouse forms a strong maritime feature on the night-time skyline. This SCA is the closest point to Wales along the Exmoor coast.
- Strong visual connections between Hurlstone Point, the sweeping arc of Porlock Bay and Foreland Point (SCAs 4 and 5). Contrasting views of development to the east, including the Butlins complex and across Bridgwater Bay to the developed Severn Estuary beyond.
- **Glimpses of large-scale container ships and tankers** travelling via the Bristol Channel to and from the major ports of South Wales and Avonmouth.
- Perceptual qualities vary according to prevailing weather conditions a sense of foreboding and wildness pervades when storms and winds whip across the waters of the Bristol Channel.

The special qualities of this seascape that would be most sensitive to change include:

- The setting provided by moorland hills of Bossington Hill and Selworthy Beacon rising behind the coast.
- Coastal heathland, displaying a variety of colours and textures and home to a rich diversity of plants and wildlife.
- Exotic plantings found within the woodlands of Culver Cliff and on the slopes of North Hill, part of 19th century landscape enhancements undertaken by the Luttrells of Dunster Castle.
- Dynamic sand and gravel sediments and biogenetic reefs supporting a variety of fish and other marine life.
- Accessibility of the seascape for recreation and 'breathing space' by the nearby residents of Minehead, with opportunities to take part in a range of coastal and water-based activities.
- The striking and much photographed sea and coastal views, including those enjoyed from the SW Coast Path. Historic landmarks visible from the sea including Burgundy Chapel and the coastguard lookout on Hurlstone Point.
- The wild, open, windswept and remote qualities associated with this seascape lying in immediate stark contrast to development at Minehead.







Coastal land / marine resource management

- Continuing efforts required to manage the open heathland and maritime grassland habitats, including through grazing, to reduce the encroachment of bracken, gorse and secondary woodland such as birch.
- Ongoing management of the cliffs' characteristic woodland cover, tackling issues such as a spread of non-native species (including rhododendron), replanting with broadleaves, and conserving areas of historically important exotics associated with the Luttrells' 19th century landscape enhancements. This includes replanting with exotic species where appropriate and the use of climate resilient species, such as Coastal Redwood.
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).

Aquaculture and fishing

• Uncertain economic viability for the remaining fishermen based at Minehead Harbour (one small netter and four potters), who are much valued as part of the community, local economy and heritage of the area.

Access, recreation and tourism

• Limited access to the coastline and foreshore, although this does contribute to the SCA's remote and tranquil qualities.

Other development pressures / impacts

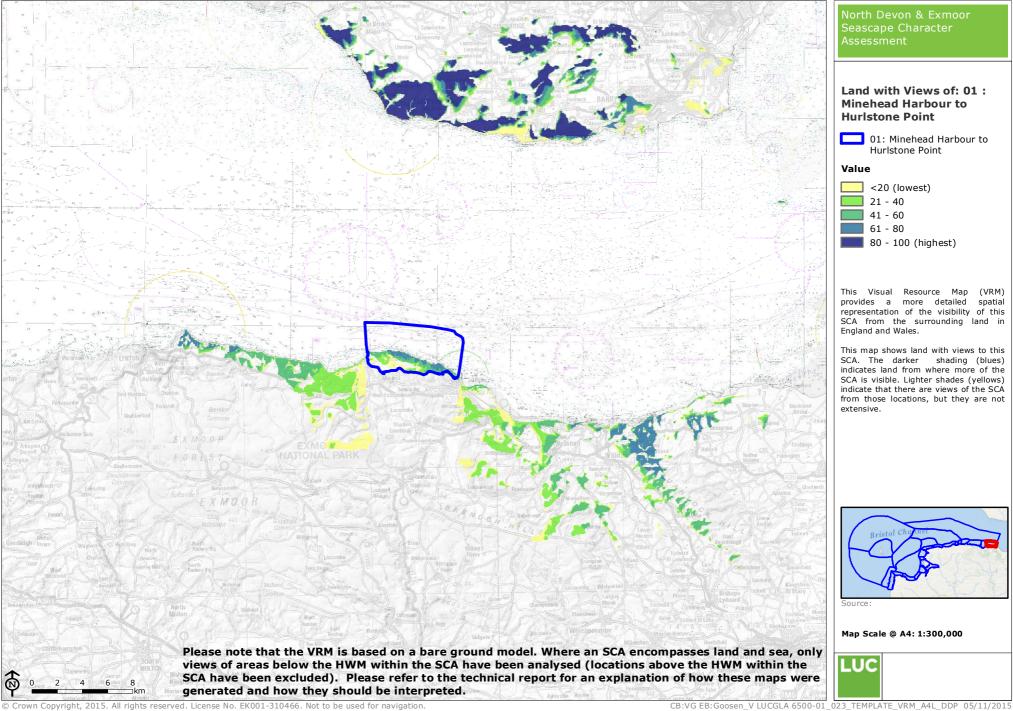
- Urban fringe land uses and development extending to the edge of the National Park from Minehead, impacting on the landscape and seascape setting of the National Park.
- Strong tidal energy resource in this part of the Bristol Channel likely to see increasing pressure for tidal stream or tidal lagoon developments, including potentially in Bridgwater Bay to the east.
- Views to industrial and urban development on the South Wales coast impacting on perceptions of tranquillity, remoteness and dark night skies (the Exmoor international Dark Sky Reserve is centred on the moorland core behind the coast).

- Low but nevertheless present levels of coastal erosion putting heritage assets and levels of access at risk, which may accelerate in the long-term due to climate change and sea level rise.
- Potential future change in woodland / tree species composition as new pests/diseases spread (particularly *Phytopthora* pathogens), as a result of a changing climate.
- Impacts of climate change on characteristic habitats and tree distribution (potentially increased growth rates, accelerating the spread of scrub and trees onto open coastal heath), including an increased prevalence of pests and diseases.

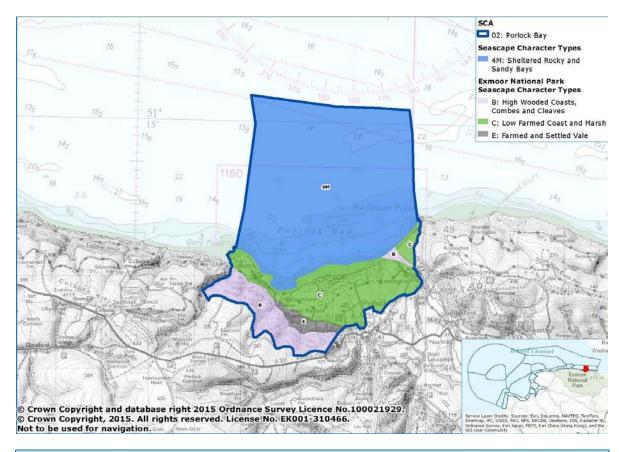








SCA 2: Porlock Bay



Click here to return to interactive overview map of the Seascape Character Areas (SCAs)



SCTs within the SCA: B High Wooded Coasts, Coombes and Cleaves; C Low Farmland Coast and Marsh; E Farmed and Settled Vale; 4M Sheltered Rocky and Sandy Bays.

A small, sheltered bay, contained by Bossington Hill and Hurlstone Point to the east and Worthy Wood and Gore Point to the west. It is backed by the low-lying, flat arc of land of Porlock Vale and marsh and the area's geomorphology, herb-rich vegetated shingle ridge and saltmarsh are nationally designated (SSSI), providing an important habitats for over-wintering and migratory birds. Offshore, the bay gently shelves down to 22m with areas of *Sabellaria* reef, providing a biodiverse habitat for invertebrates and juvenile fish. Containing the picturesque harbour of Porlock Weir, the area has a long heritage of seafaring trade and associations with smuggling. This is a dynamic and ever changing seascape, with an untamed and natural character.

The SCA's coastal area forms part of the Exmoor National Park and Exmoor Heritage Coast.



Natural / physical influences

- Bay backed by the low-lying, strikingly flat arc of land of Porlock Vale and marsh, gradually rising from sea level to 15m AOD.
- Enclosed by the prominent coastal landforms and wooded slopes of Bossington Hill (243m AOD) to the east and Worthy Wood to the west.
- Solid onshore geology of Devonian mudstones and sandstones, but predominantly defined by drift river terrace and saltmarsh deposits and a mixture of silt, sand, clay and rock fragments.
- **Promontory of Hurlstone Point** a strong visual and physical container; displaying **curved strata and a sea cave** (Gull Hole) opening through to Selworthy Sands (SCA 1) at low tide.
- Sheltered bay gently shelving to a maximum depth of 22m; the seabed formed of Triassic mudstones and overlain by marine gravel deposits. Large tidal range (nearly 10m at springs).
- Dynamic pebble and shingle ridge, formed in the Holocene epoch. The area's geomorphology, herb-rich vegetated shingle and saltmarsh behind the ridge are nationally designated (SSSI); important habitats for over-wintering and migratory birds.
- Rocky and gravelly sea bed with areas of Sabellaria reef, providing a biodiverse habitat for invertebrates and juvenile fish. Pacific oysters, mussels, sea squirt, polychaetes and a rare sea snail (Ocinebrina aciculate) are also found.
- Moderate tidal streams in the bay, but stronger in the offing (reaching 4 or 5 knots). Shelter provided in all conditions at the drying harbour of Porlock Weir, although east or north-easterly winds can send in a swell.

Cultural and social influences (past and present)

- Ancient palaeolandscapes periodically revealed at low tide, including
 petrified tree trunks. Winter storms in 1996 uncovered the bones of the famous
 Porlock Aurochs, a mammoth ox from 1500 BC.
- Strong heritage of seafaring trade at Porlock Weir, including coal and limestone from South Wales. 18th and 19th century exports included pit props for mines, flour and bark for tanning- via large sailing ketches.
- Associations with smuggling famously the Mabel, sunk off the Welsh coast
 with rum barrels washed up beneath Culbone woods. The rum was tapped by Weir
 residents to leave the barrels empty when Customs officers arrived.
- Long history of small-scale fishing, particularly drift netting for herring.
 Medieval fish weirs survive, which would have revealed their catch at low tide.
- 19th century trade in oysters dredged from the bay, some transported to top London restaurants via the Minehead railway. A holding pen 'Oyster Perch' is still

- visible at low tide. Stocks entirely depleted by the 1890s with current trials for a small-scale revival of the industry.
- Prominent **historic landscape features along the coastal edg**e including a limekiln and World War II pillboxes. Former coastguard hut on Hurlstone Point (SCA 1) is an historic gateway feature into the bay.
- Small-scale commercial fishing and angling popular today; anglers beneath umbrellas a common sight on the pebble beach. Species caught include dogfish, thornback rays, congers, pollock and bass.
- A popular recreational resource for locals and visitors alike; the SW Coast Path and other footpaths crossing through the landscape (including via boardwalks across the low-lying marsh).
- **Surrounding rich farmland in Porlock Vale**, historically famous for malting barley and is still important today for arable cultivation.
- Offering commanding views over the bay from the east, Bossington Hill is owned and managed by the National Trust, providing further access and enjoyment opportunities.
- Water-based activities in the sheltered bay including kayaking, motor boating and yachting, with Royal Yacht Association routes converging in the bay from South Wales.
- Sightseeing cruises on historic vessels from Minehead pass through the outer bay en-route to Ilfracombe/Lundy during the summer months.
- **Popular 'miniature harbour' of Porlock Weir** (a Conservation Area), with white-painted former fishermen's cottages with thatched roofs.

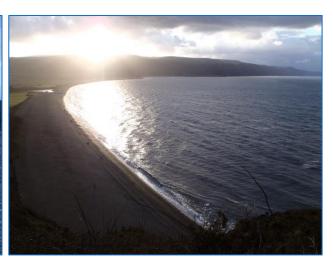
Perceptual and aesthetic influences (continued over)

- An untamed, natural character pervades across the marsh, Porlock ridge and the open waters of the bay – particularly emphasised during stormy conditions when waves break over the ridge.
- A contrasting hub of activity and movement associated with Porlock Weir, with
 its large car park and tourist facilities. An historic maritime character is
 nevertheless associated with this historic port village.
- Strong artistic and literary associations the landscape proving a draw for Romantic poets Coleridge, Shelly and Wordsworth. Southey composed his sonnet 'To Porlock' in 1799 whilst staying at Porlock Weir.
- **Far-reaching views to South Wales**, including the flat-topped white/yellow cliffs of the Glamorgan coast backed by mountains silhouetted on the distant horizon.
- **Nash Point lighthouse forming** a distant maritime feature, its beam sweeping across the Channel at night.
- **Glimpses of large-scale container ships and tankers** travelling via the Bristol Channel to and from the major ports of South Wales and Avonmouth.

- Views into the bay from the sea marked by the clustered white and cream buildings of Porlock Weir and Porlock village, framed by a wooded backdrop rising dramatically to the open Exmoor moorlands above.
- Panoramic views across the bay from the surrounding moorland summits
 of Bossington Hill and Porlock Hill, showing the transition from open sea,
 naturalistic seascape edge to the regular grid of rich farmland characterising the
 vale.





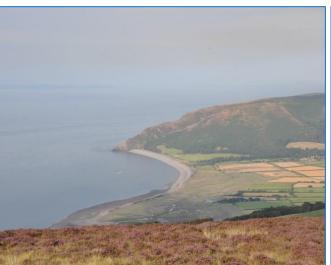


The special qualities of this seascape that would be most sensitive to change include:

- Rich diversity of habitats; the pebble ridge worked by waves, salt marsh inundated on spring tides, and adjacent farmland. Important site for overwintering migratory birds.
- Submerged ancient landscapes, including petrified trees and forest.
- Picturesque harbour of Porlock Weir (a Conservation Area); historic farm buildings; military and industrial heritage including pill boxes and lime kilns.
- Porlock oysters, presenting a new economic opportunity to revive a traditional industry. The role of the waters as an important fish nursery.
- Opportunities for access and recreation, including angling, yachting and walking via the SW Coast Path and National Trust land on Bossington Hill.
- Constantly changing, dynamic coastal landscape.
- The tranquillity and wild beauty of the marsh, and enclosed nature of the bay (framed by Hurlstone Point) with far-reaching views to South Wales.

NB For this SCA please also refer to the visioning document developed by the partnership project *Porlock Marsh is Changing: Take a New Look* led by Porlock Parish Council, Exmoor National Park Authority, National Trust, Porlock Manor Estate and Natural England.







Coastal land / marine resource management

- Changes to land management, particularly as a result of the impacts of dynamic coastal processes (see under 'Natural processes and climate change' below). This has included the recent removal of livestock grazing from the west of the marsh.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.

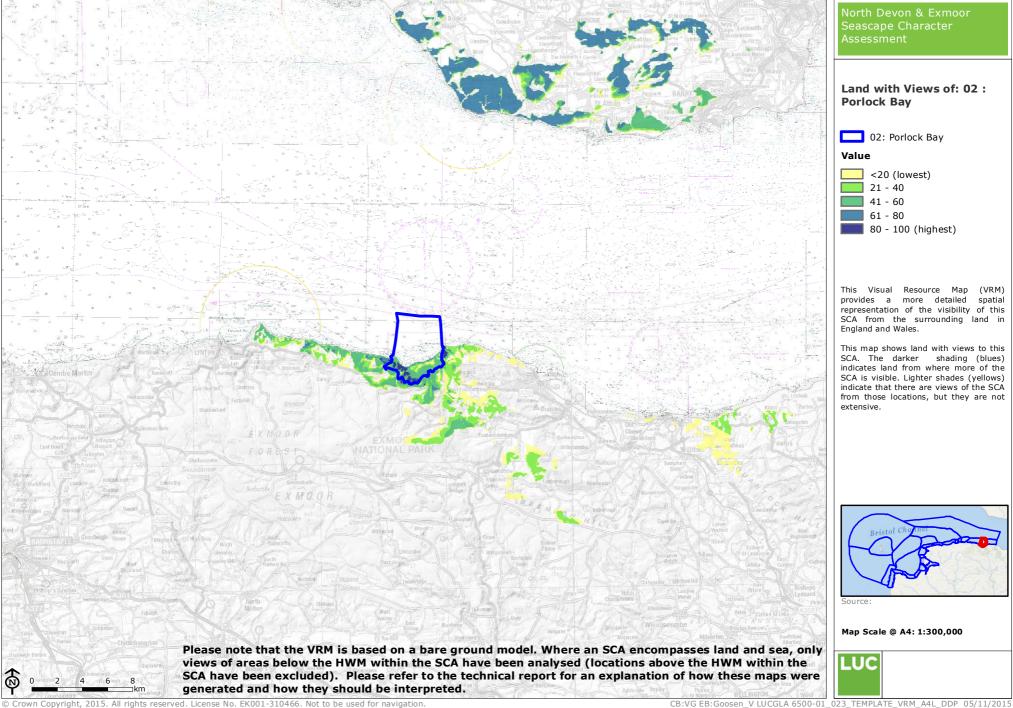
Aquaculture and fishing

• Uncertain economic viability for the remaining fishermen based at Porlock Weir, who are much valued as part of the community, local economy and heritage of the area. A revival of the traditional oyster fishery in the bay may provide new economic opportunities to support the village's small-scale fishing industry.

Access, recreation and tourism

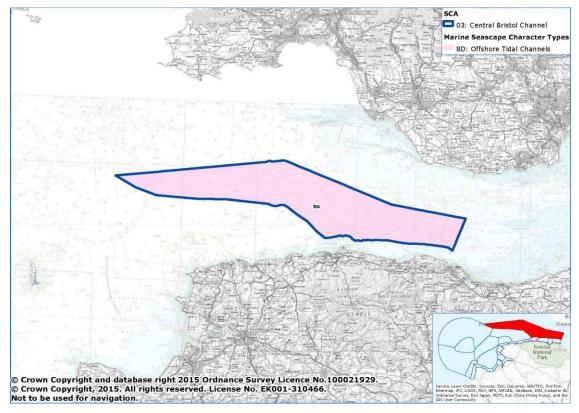
- South West Coast Path requiring diversion from its original course along the ridge to now skirt around the inland edge of the Marsh. Some of the footpaths on the Marsh are inundated by the tide.
- Interruption of the simple, open character of the salt marsh landscape due to post and rail fencing diverting the SW Coast Path, including away from ground-nesting bird sites. Some perceive the new sections of boardwalk to be having an 'urbanising' effect on the naturalistic character of the marsh.
- Large car park and other visitor facilities at Porlock Weir evoking a contrasting busy character to the overall tranquil and often 'wild' qualities of the marsh.

- The narrow pebble ridge fronting the marsh was breached by a storm in October 1996, flooding the low-lying marsh behind. This is the only fully documented example in the UK of a nationally important coastal system which has undergone catastrophic failure and subsequent evolution following sediment inhibition.
- Predicted that without defences and other human intervention (the SMP policy is for no active intervention), there will be a natural retreat of the entire shoreline onto the low-lying land behind, resulting in an overall reduction in the flood protection afforded to both the settlement of Porlock Weir and to the low-lying land to the east, by the gravel barrier.
- The retreating coastline poses implications for historic buildings, archaeological remains and characteristic landscape features which may be lost or gradually denuded by the changing environment.



SCA 3: Central Bristol Channel

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)





SCTs within the SCA: 8D Offshore Tidal Channels.

Forming the innermost SCA within the Bristol Channel, this SCA comprises the central section of the Bristol Channel, extending up to approximately 20km offshore from the Exmoor coast, with a sense of enclosure increasing in the east as the channel narrows. Its bathymetry and seabed topography is influenced by the presence of sand and gravel banks which form havens for seasonal variations of fish species, including commercially important stocks. Characterised by channels running perpendicular to the east-west tidal currents and the second largest tidal range in the world. The area is highly exposed to weather rolling in from the Atlantic, creating areas of high wave climate in the west. It has strong historical and current associations with maritime trade and transport, with human activity continuing to have a strong influence on character.



Natural / physical influences

- Enclosed seascape of the central Bristol Channel, with water depths ranging between 14 and 46 metres; bathymetry and seabed topography influenced by the presence of **sand and gravel banks**. A sense of enclosure increases in the east as the channel narrows.
- Jurassic mudstone, sandstone, limestone and clay seabed, in parts overlain
 by thick Holocene-derived deposits of sand and gravel. Strong tidal movements
 combined with suspended sediment resulting in high levels of turbidity.
- Traces of **relict palaeochannels of the River Severn**. Prior to the Channel's rapid inundation after the last Ice Age, the landscape was a vast plain crossed by tributaries of the Severn; used as hunting grounds by both humans and animals.
- Channels running perpendicular to the **east-west tidal currents**, their strength **accelerating in the east** due to the funnelling effect of the adjacent land.
- The wider Bristol Channel has the **second highest tidal range in the world** (this central part is approximately 10m); after the Bay of Fundy in Canada.
- **Exposure to weather rolling in from the Atlantic** creating areas of high wave climate in the west, where protection from surrounding land diminishes. Conditions particularly treacherous when wind direction opposes the strong tides.
- Areas of high and moderate energy circalittoral rock and biogenetic reefs home to tide-swept faunal communities. The SCA's many ship wrecks also create valued artificial reefs.
- Sand and gravel banks forming havens for seasonal variations of fish species, including commercially important stocks of cod, plaice, bass, sole, turbot, whiting, pouting and all species of ray.
- Common dolphins, harbour porpoises and grey seals occasionally spotted in the seas.

Cultural and social influences (past and present)

- Known vulnerability of the surrounding coastline to Atlantic conditions over the
 centuries, including a massive flood event in 1607 thought to have been caused
 by a storm surge. Thousands of people drowned, farmland inundated and livestock
 destroyed on both shores of the Channel.
- Long-standing strategic role of the Bristol Channel as a key entry point into
 Britain by sea. Both the Roman and Viking fleets made approaches via the Bristol
 Channel and occupied the wider area. Fleets travelling to the D-Day landings in
 WWII also passed through these waters.
- Strong historical and current associations with maritime trade and transport, with human activity continuing to have a strong influence on character.
- Maritime trade burgeoned from the medieval period onwards; particularly following the Industrial Revolution which drove the major development and

- expansion of ports along the channel including Swansea, Cardiff and Bristol (as well as the smaller North Devon ports and harbours).
- Cross-channel trade between South Wales and North Devon ports flourished during the same period the exchange of locally sourced materials such as coal and limestone further feeding the prosperity of the wider region.
- Large number of reported shipping losses over many centuries, including small wooden vessels engaged in coastal trade, larger deep ocean-going voyagers such barques and brigantines, and vessels engaged in wartime conflicts.
- Cargo liner Carare struck a mine and sank north of Foreland Point in 1940, with the loss of ten of the 126 people aboard. The survivors were rescued by the Royal Navy.
- Along with other wrecks on the seabed the shallow wreck of the Carare is a
 popular dive site, owned by Ilfracombe & North Devon Sub Aqua Club.
- Numerous disused and active telecommunications cables crossing the seabed, including the recently completed *Hibernia Express* network connecting North America, the UK and Europe.
- Continuing role of the wider Bristol Channel as an internationally important maritime trade and transport route, with thousands of ship movements per day.
- Recreational sailing and cruising routes linking destinations along both the Welsh and English coasts (including the nearby harbours of Minehead, Porlock, Lynmouth and Ilfracombe).
- **Fishing and diving charters** frequenting the wrecks and sand banks; whilst commercial trawlers including from Ilfracombe, Appledore and Bideford fish the rich waters.

Perceptual and aesthetic influences (continued over)

- Susceptible to extreme weather conditions sweeping in from the Atlantic, including storm surges. During these periods a sense of danger and relative wildness can pervade despite views to settlement and associated 'safety'.
- **Flashing navigation marks** contributing to the night-time character, including the beam of Nash Point lighthouse viewed from Exmoor, Foreland Point lighthouse viewed from South Wales, and distant westerly views to Lundy North Light.
- Lundy features in long views from the west of the SCA; the two islands of Flat Holm and Steep Holm visible to the east; guarding the Severn Estuary.
- **Contrasting views** to industrialised sections of the South Wales coast (including wind turbines on distant hills) and the remote coastline of Exmoor National Park to the south, with its high rugged cliffs and dark night skies.
- Views to the flat-topped light golden cliffs of the Glamorgan coast featuring from the eastern half of the SCA, backed by mountains. The distinctive profile of Worms Head (Gower AONB) features on northerly horizons from the western half.
- Regular glimpses of large-scale container ships and tankers travelling to and from the surrounding major ports bring this marine area to life, reinforcing its strong sense of place and long-standing role as a major seafaring route.

The special qualities of this seascape that would be most sensitive to change include:

- The strong tidal streams and tidal range the Bristol Channel as whole having the second highest tidal range in the world.
- Complex, dynamic seabed habitats home to commercially important fish species; supporting the heritage and economy of local ports and harbours.
- Historic and ongoing importance for maritime trade and communication; range of shipwrecks tracing its historic uses (today popular for scuba diving and fishing charters).
- Strong contrast between views to the rugged, remote cliffs of Exmoor (to the south) and the industrialised coast of South Wales (to the north).
- Long views changing by the hour, influenced by the prevailing weather and tides, the position of the sun and the movement of boats and other vessels.
- The seascape's role as part of the wider maritime setting to Exmoor National Park, North Devon AONB and Gower AONB.







Marine resource management

- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities, offshore development, and climate change).
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed up on the surrounding coastlines, as well
 as a greater risk of major pollution incidences.
- Tighter fishing restrictions in other parts of the Bristol Channel could lead to greater pressures on the fish stocks found within this SCA.

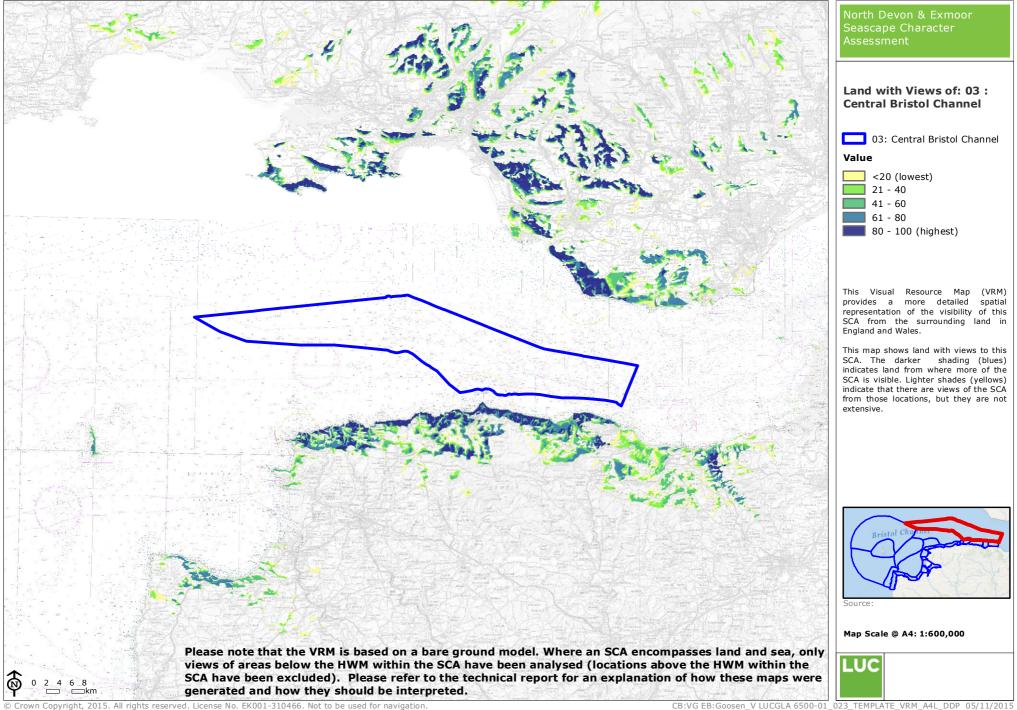
Aquaculture and fishing

• Insecure economic viability for the commercial fishing fleets using these waters, who are much valued as part of the community, local economy and heritage of the wider area.

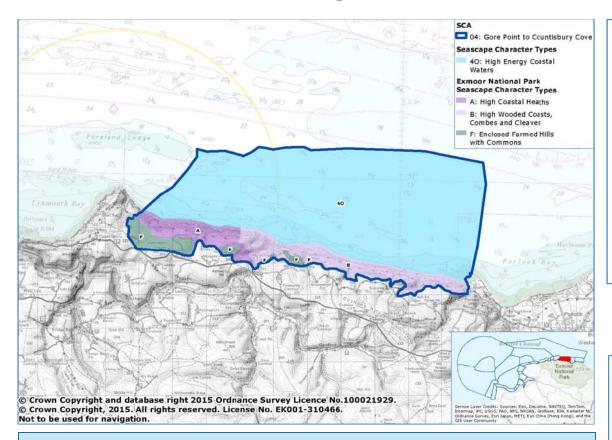
Other development pressures / impacts

- Increased future demand for aggregates extraction potentially leading to sites within this SCA being explored for dredging (currently none of the SCA is licenced for this activity).
- Strong tidal energy resource, likely to see further testing for tidal stream developments as part of the North Devon Tidal Zone, which extends up to 10km offshore from Foreland Point into this SCA (also covering SCAs 4, 5, 6, 7, 8 and 9).
- Ongoing national demand for alternative sources of renewable energy production; although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward which could impact on the undeveloped, open character of this seascape.
- Any new coastal developments would be prominent in the open, expansive views offered from this SCA.

- Increased frequency of storm surges and sea level rise as a result of climate change, accelerating the shifting nature of the sand/gravel banks within the SCA; disrupting sediment flow/load within the waters; and putting coastal communities at greater risk of coastal flooding, erosion and storm damage.
- More intense storm conditions and prolonged rainfall, as a result of climate change, also with the potential to increase sediment flow into the Bristol Channel from the surrounding estuaries, including the Severn.



SCA 4: Gore Point to Countisbury Cove



SCTs within the SCA: A High Coastal Heaths; B High Wooded Coasts, Coombes and Cleaves; F Enclosed Farmed Hills with Commons; 40 High Energy Coastal Waters.

This section of coastline extends between Gore Point in the east and Foreland Point in the west and is characterised by steep cliffs and unstable scree slopes that drop down to the sea from rounded moorland summits. The slopes are punctuated by small combes and rocky ravines and are drained by fast-flowing streams and small waterfalls. It contains nationally and internationally designated coastal habitats including an unbroken expanse of woodland with endemic whitebeams, and coastal heathland. Offshore, the seabed gently shelves down to 15m in depth and the dynamic sand and gravel sediments and biodiverse reefs support a rich variety of marine life. Richly coloured and remote, the area has associations with Coleridge and Ada Lovelace, including the relics of Lovelace's early 19th century Italianate terraced gardens at Ashley Combe.

The SCA's coastal area forms part of the Exmoor National Park and Exmoor Heritage Coast.

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)

Natural / physical influences

- Steep cliffs and unstable scree slopes plunging down to the sea from rounded moorland summits, including Kipscombe Hill (343m AOD and Sugarloaf Hill (264m).
- Slopes punctuated by small combes and rocky ravines forming hog's back cliffs, drained by fast-flowing streams and small waterfalls.
- Foreland Point and its lighthouse (SCA 5) dramatically framing the coastline to the west, with overfalls and strong tidal streams breaking the water surface, presenting challenges to seafarers.
- Caves at Yenworthy and the 'Giant's Rib' sea arch illustrating the complex coastal geomorphology. Sir Robert's Chair is likely to be named by sailors viewing Desolation Point – likening it to a giant throne.
- Worthy, Yearnor, Culbone, Embelle and Yenworthy Woods forming the longest stretch of unbroken coastal woodland in the country, often masking the shapes of the cliffs.
- Coastline underlain by Lower and Middle Devonian sandstones, shales and pebble beds extending offshore, mainly obscured by woodland but with grey, pink, red and purple exposures at the cliff base.
- Gently shelving sea bed, generally up to 15m in depth. Dynamic sand and gravel sediments and biogenetic reefs support a rich variety of marine life, including lobster.
- Nationally and internationally designated coastal habitats including speciesrich coastal heathland and nationally scarce plants including endemic whitebeam.
 The cliffs provide hunting grounds for peregrine falcons.
- Shoreline defined by shifting banks of grey pebbles and boulders interspersed by small patches of brackish water, sand and gravel; rich feeding grounds for wading birds including oyster catcher and curlew.
- Strong tidal streams and currents with a tidal range of up to 10m at springs, producing an ever-changing seascape emphasised by changes in water colour (according to sediment load and turbidity).

Cultural and social influences (past and present)

- SCA overlooked by the nationally designated Old Burrow Roman fortlet, situated in a commanding position with strategic views across the Bristol Channel.
- Early 19th century Glenthorne House sitting on a terrace above the shore, an
 historic seascape feature (Grade II listed) marking the county boundary. Ruins of
 two limekilns and a boathouse also found here.

- Associations with Ada Lovelace, the remains of the Italianate terraced gardens associated with her family's former hunting lodge (built in 1799) still visible. A designed landscape extends west through Culbone Woods.
- Remains of Exmoor's most remote lime-burning site at Countisbury Cove, including an old packhorse route and limekiln. The isolated Culbone Church claims to be England's smallest active church, on the site of a 5th century monastery.
- Boulders from the beaches across the SCA likely to have been used to construct tidal fish weirs over many centuries.
- Two shipwrecks found on the seabed reflecting the hazardous conditions off Foreland Point. One forms a dangerous obstruction to navigation in its own right.
- SCA used for low-intensity commercial netting and recreational angling, with charter boats operating from the nearby harbours of Porlock Weir and Minehead to explore the wider area.
- **SW Coast Path and the alternative 'Rugged Path'** traverse the mid slopes of the cliffs, with limited access to the foreshore and beaches. The cliffs, particularly in the east, are popular climbing spots.
- Waters defined as a sailing area by the **Royal Yacht Association**, the nearest sailing club being at Porlock Weir (SCA 2). **Sea kayaking** also takes place within the coastal waters.
- Sightseeing cruises on historic vessels pass through the waters in the summer months, including the famous Waverley paddle steamer and MV Balmoral.

Perceptual and aesthetic influences

- High levels of tranquillity, remoteness and dark night skies owing to low levels of access and large sections entirely free of settlement.
- An overriding sense of enclosure on the cliffs due to the density and darkness
 of the tree cover. Sounds of water streams cascading down the cliffs, waves
 lapping (or crashing) the shore, define the soundscape.
- **Far-reaching views to the South Wales coast**, including the chimneys and smoke plumes of Port Talbot steelworks a distant industrial landscape in stark contrast to the remote seascape of this SCA.
- Large-scale container ships, tankers and yachts form occasional moving features on the water emphasising a maritime character.
- Rich colours changing through the seasons: purple heather, yellow gorse, grey scree slopes and the changing colours of the leaves on the trees cloaking the cliffs.
- Artistic and literary connections Coleridge stayed at the nearby Ash Farm when composing 'Kubla Khan' (wider associations commemorated by the Coleridge Way); the wider landscape is 'Lorna Doone Country'.
- The dynamic nature of the tides and often quickly changing weather conditions emphasise an ever-changing character. A desolate and wild seascape emerges when storms funnel through the Bristol Channel.

The special qualities of this seascape that would be most sensitive to change include:

- Nationally and internationally designated heathland, maritime grassland and woodland 'stretching for miles', with specimens of endemic whitebeam.
- Dynamic sand and gravel sediments and biogenetic reefs supporting a rich variety of marine life. Varied shoreline habitats providing feeding grounds for wading birds.
- Valued historic features, including Old Burrow Roman fortlet, Culbone Church, Glenthorne House as well as historic lime kilns and fish weirs.
- Cultural associations with Coleridge and Ada Lovelace, including the relics of Lovelace's early 19th century Italianate terraced gardens at Ashley Combe.
- The seascape's high levels of tranquillity, enclosure, remoteness and even silence –with high levels of inaccessibility, particularly along the shoreline.
- Far-reaching views across the Bristol Channel to South Wales, including the yellow/cream coloured cliffs of the Glamorgan Coast.







Coastal land / marine resource management

- Ongoing work required to control a spread of invasive species within the coastal woodlands, particularly rhododendron. Private woodland owners, the National Trust and the National Park Authority, with support from the Forestry Commission, have cleared huge areas of rhododendron over the last 20 years, revealing sea views and features as well as restoring important habitats.
- Need to carefully manage grazing levels on pockets of open heathland and grassland, prone to suffer from an encroachment of bracken, gorse and secondary woodland. The traceability of important historic landscapes, as well as their condition, has also been affected by vegetation spread and a lack of management. Exmoor NPA is exploring furthering the understanding and conservation of the historic landscape associated with Ashley Combe, including restoring important viewpoints and retaining, or possibly restocking, with exotic species to conserve character.
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).

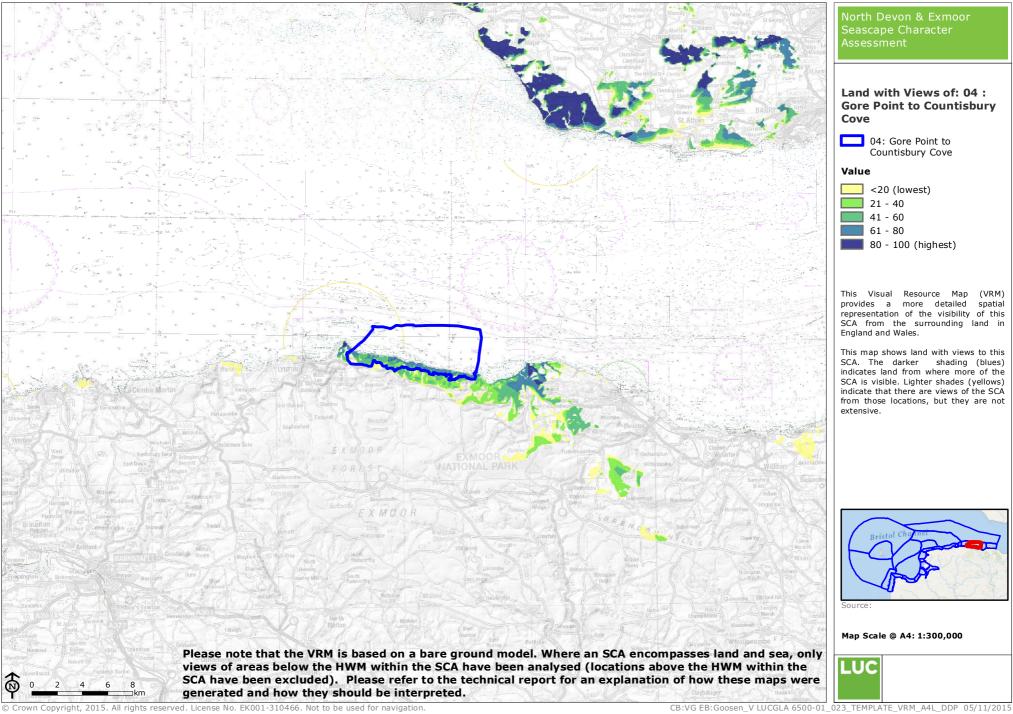
Access, recreation and tourism

- Limited access to the coastline and foreshore, although this does contribute to the SCA's remote and tranquil qualities (as recognised in the previous 'Special qualities and key seascape sensitivities' section).
- Levels of remoteness and tranquillity intermittently affected by the sounds of jet skis and motorboats, including users travelling from Swansea and Lynmouth.

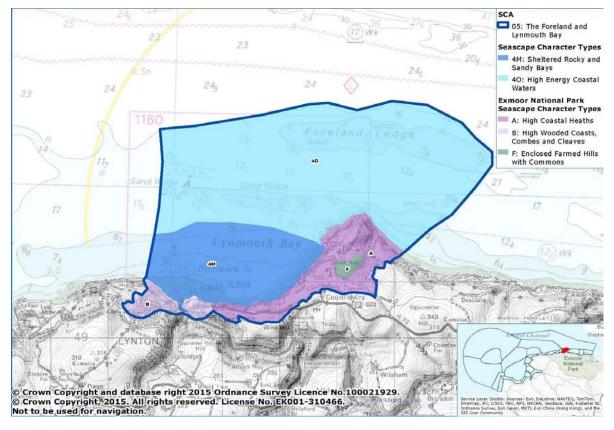
Other development pressures / impacts

- Strong tidal energy resource in this part of the Bristol Channel likely to see increasing pressure for tidal stream or tidal lagoon developments within or close to the SCA (the North Devon Tidal Zone demonstration area for tidal stream arrays is located in adjacent SCAs 3 and 5).
- Views to industrial and urban development on the South Wales coast impacting on perceptions of tranquillity, remoteness and dark night skies (the Exmoor international Dark Sky Reserve is centred on the moorland core behind the coast).

- Low but nevertheless present levels of coastal erosion putting heritage assets and levels of access at risk, which may accelerate in the long-term due to climate change and sea level rise.
- Potential future change in woodland / tree species composition as new pests/diseases spread (particularly *Phytopthora* pathogens), as a result of a changing climate.
- Impacts of climate change on characteristic habitats and tree distribution (potentially increased growth rates, accelerating the spread of scrub and trees onto open coastal heath and maritime grasslands and historic landscapes), including an increased prevalence of pests and diseases.



SCA 5: The Foreland and Lynmouth Bay



Click here to return to interactive overview map of the Seascape Character Areas (SCAs)



SCTs within the SCA: A High Coastal Heaths; B High Wooded Coasts, Coombes and Cleaves; F Enclosed Farmed Hills with Commons; 4M Sheltered Rocky and Sandy Bays; 4O High Energy Coastal Waters.

A small, sheltered bay contained by the distinctive headland of Foreland Point to the east, providing safe anchorage for boats in the small harbour at Lynmouth. In contrast, conditions around Foreland Point are notoriously hazardous, with a jutting headland and strong tidal streams. The lower cliffs display the contorted strata and varied colours of greys, pinks and yellows of the exposed bedrock geology. This seascape is steeped in natural and cultural heritage— with nationally and internationally designated marine habitats and a rich history associated with the picturesque haven of Lynmouth.

The SCA's coastal area forms part of the Exmoor National Park and Exmoor Heritage Coast.



Natural / physical influences

- Prominent headland and lighthouse of The Foreland (210m AOD) guarding the eastern extremity of Lynmouth Bay. Hollerday Hill (244m AOD) shelters the bay to the west.
- Shallow tidal waters in the bay, increasing to 20m off The Foreland. A sand ridge on the edge of the bay lies close to the water surface, indicated by breaking waves. Its presence is marked by a lateral buoy.
- Bay sheltered from most weather conditions (except north/north-westerlies)
 offering safe anchorage in the small drying harbour. Boats enter near high water
 via a corridor marked by posts.
- Hazardous sea conditions off Foreland Point; the rocky Foreland Ledge
 extending two miles out to sea. This, the jutting headland itself and strong tidal
 streams produce heavy overfalls up to a mile offshore.
- Coastline underlain by Lower and Middle Devonian sandstones, mudstones, slates and shales extending offshore, with contorted strata and varied colours of greys, pinks and yellows visible in the lower cliffs.
- Sea caves and caverns punctuating the base of the Foreland; the booming sound
 of compressed air and sea water forced out of the Gun Chamber Caverns said to be
 heard in Lynmouth.
- Dramatic near-vertical heath, bracken and scree-clad slopes plummeting to the sea in the east, with a narrow rocky foreshore broken by grey sandy/pebbly beaches, including Sillery Sands.
- Densely wooded gorge forming a distinctive backdrop to Lynton and Lynmouth. Clumps and groups of Monterey and other pine planted on prominent positions overlooking the harbour form distinctive features of the 'Little Switzerland' character.
- Lynmouth Harbour fronted by a wide intertidal pebble beach crossed by the River Lyn as it meets the sea; a ridge of boulders behind forms a shoreline defence.
- Majority within the wider Bideford to Foreland Point Recommended Marine Conservation Zone, in recognition of its marine biodiversity – including shallowwater mixed sediments exposed to a moderate and high energy water environment.
- Commercially and recreationally fished species including rays, smoothhound, mullet, bass, pollock, mackerel, tope, skate, conger and lobster. At low tide the shoreline provides rich feeding grounds for wading birds including oyster catcher and curlew.
- Nationally and internationally designated coastal habitats including coastal heathland and nationally scarce plants including the endemic whitebeam. Cliffs provide hunting grounds for peregrine falcons.

Cultural and social influences (past and present)

- Earthwork defences of Countisbury Castle Iron Age promontory fort (a Scheduled Monument) sitting in a strategic position overlooking the bay and wider Bristol Channel from the east.
- Focal point of the bay provided by the traditional resorts of Lynton and Lynmouth, linked by the famous water-powered cliff railway – named 'Little Switzerland' by the Victorians.
- Lynmouth characterised by traditional white-painted cottages and Victorian hotels tumbling down wooded gorge sides to the quay. The historic Rising Sun Inn is said to have been used by smugglers.
- Strong maritime heritage, including the famous Lynmouth lifeboat, launched overland to rescue a stricken ship off Porlock Bay in 1899. Hauled by 100 local men and horses over Countisbury Hill, the lifeboat helped successfully rescue the crew; the ship eventually towed to Barry.
- **Notorious wrecking site of Foreland Point**, victims including the *Sunbeam*, an English cutter stranded and lost in strong winds in 1896.
- Rhenish Tower (Grade II), originally built in 1860 to store saltwater for indoor baths, forms a distinctive landmark on Lynmouth Pier. Later used as a beacon, it was rebuilt as an exact replica after the 1952 floods.
- Powerful memories of the 1952 Lynmouth floods which claimed 34 lives and left hundreds of people homeless after 23cm of rain fell on Exmoor in 24 hours.
- Remains a popular holiday destination, offering traditional seaside activities as well as coastal walks via the SW Coast Path and National Trust-owned land as part of their wider Watersmeet estate.
- **Fishing charters and sightseeing boat trips** from the small harbour; the summer also bringing glimpses of historic cruising ships travelling through the outer bay (e.g. the famous Waverley paddle steamer).
- Waters used for sailing by the **Royal Yacht Association**, the small harbour providing sheltered moorings for visitors. **Sea kayaking**, **surfing**, **rock pooling** and **swimming** within a tidal pool on the eastern beachfront are also popular activities.
- The Foreland's strong tidal streams used to test the world's first open-sea tidal turbine, the technology now implemented in the Strangford Narrows, Northern Ireland. Related structures still visible in the waters below the headland; the wider area now part of the North Devon Tidal Zone for testing tidal stream arrays.

Perceptual and aesthetic influences (continued over)

 A seascape steeped in natural and cultural heritage- from the wild and rugged Foreland Point with its dangerous seas and associated landmark lighthouse, to the picturesque sheltered haven of Lynmouth.

- Mast on Butter Hill featuring prominently in views from along the coast and out to sea; a contrasting man-made vertical structure on rounded, otherwise undeveloped moorland summits crowning the coast.
- Sweeping bay with views along the Exmoor coast; views west towards the distinctive jagged form of the Valley of Rocks (SCA 5) and east across the remote wooded coastline towards Porlock Bay and Hurlstone Point (SCA 2).
- Wider setting for the romantic 1869 novel *Lorna Doone*, centred on the East Lyn valley. The ever-changing light, colours and movements of the seascape continue to provide artistic inspiration to locals and visitors alike.
- Open outlook with uninterrupted views to South Wales, including wind turbines on distant hill summits, and the chimneys and smoke plumes of the Port Talbot steelworks – contrasting industrial features.
- Large-scale container ships, tankers and yachts forming occasional moving features on the horizon, emphasising a maritime character.
- Twinkling lights of development at Swansea, including a tall red lit television
 mast behind Swansea Bay. Flashing buoys in the bay and Channel also contrast
 with the dark night skies associated with this coast.







The special qualities of this seascape that would be most sensitive to change include:

- High cliffs, the distinctive moorland-topped headland of Foreland Point, hidden caves, rockpools and the remote beach at Sillery Sands.
- Shallow-water mixed sediments supporting varied marine life, including commercially important fish species. Diverse shoreline habitats used as feeding grounds by wading birds.
- Historic Lynmouth harbour with its small fishing fleet, and legends associated with smuggling and ship wrecks (including the famous Lifeboat Story).
- Heritage features including the Rhenish tower, Foreland Point lighthouse, lime kilns and the traditional seaside resorts of 'Little Switzerland', with the famous Cliff Railway.
- Opportunities to enjoy water-based recreational activities including surfing, boat trips, outdoor swimming and fishing.
- The strong tides, changing weather patterns and sea mist.
- Sweeping views along the Exmoor coast including to the Valley of Rocks and Porlock Bay, and open uninterrupted vistas across the Bristol Channel to South Wales.







Coastal land / marine resource management

- Continuing efforts required to manage the open heathland, including through grazing, to reduce the encroachment of bracken, gorse and young secondary woodland such as birch.
- Need to manage and re-stock the area's characteristic pines.
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).

Aquaculture and fishing

- Uncertainty surrounding future Marine Conservation Zone designation (the Bideford to Foreland Point recommended site is currently under consideration by Defra), and the impacts any future designation might have on fishing activity in the wider area. A 'no fixed nets' restriction is already in place across much of the SCA.
- Insecure economic viability for the remaining commercial fishermen based at Lynmouth (two small potters), who are much valued as part of the community, local economy and heritage of the area.
- Long-term funding uncertainties for Lynmouth Harbour itself¹², which is currently self-sustaining (local authority-owned) and highly reliant on tourism.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism

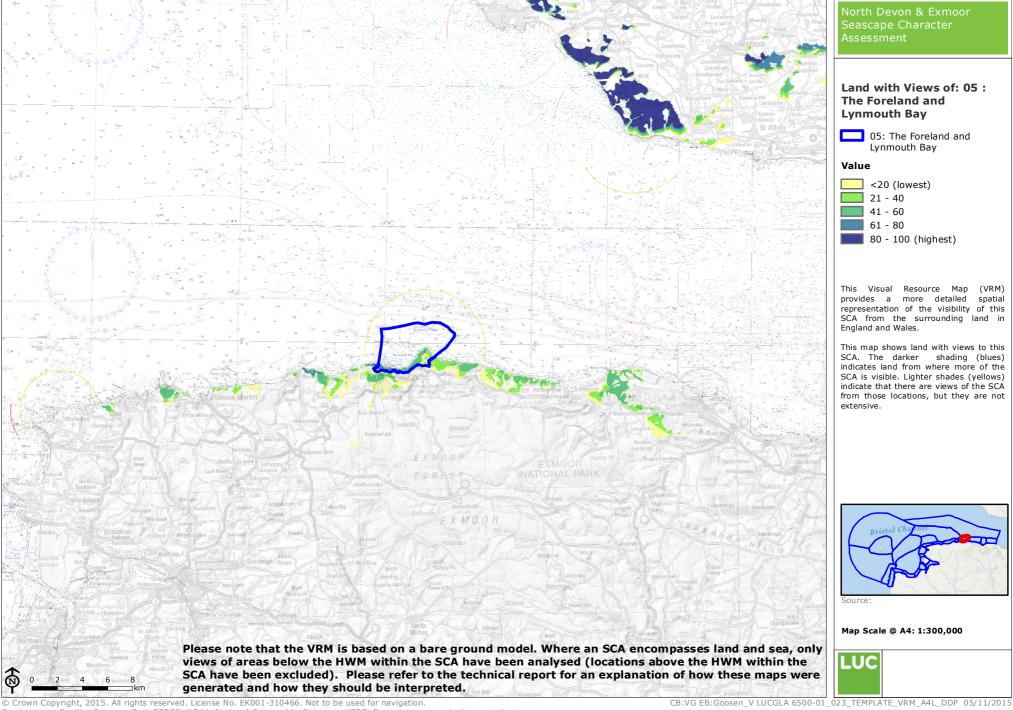
- Recent land slide due to coastal erosion cutting off previous access to Sillery Sands. This has left no access points to the foreshore along the Foreland, emphasising the headland's remote seascape character despite close proximity to Lynmouth and the A39.
- Levels of remoteness and tranquillity intermittently affected by the sounds of jet skis and motorboats travelling to and from Lynmouth Harbour.

¹² Grant funding has recently been secured from Lynton and Lynmouth Town Council, Northern Devon Fisheries Local Action Group (FLAG) and the European Fisheries Fund to improve maritime facilities, including repairs to the ancient causeway to provide better all-weather access and shelter, and a new heritage trail.

Other development pressures / impacts

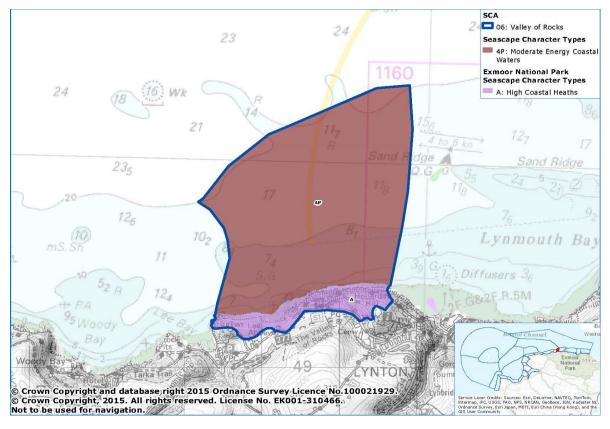
- Strong tidal energy resource, likely to see further testing for tidal stream developments as part of the North Devon Tidal Zone, which extends up to 10km offshore from Foreland Point westwards (extending into SCAs 3, 6, 7, 8 and 9).
- Mast on Butter Hill prominent in views from along the coast and out to sea.
- Views to industrial and urban development on the South Wales coast impacting on perceptions of tranquillity, remoteness and dark night skies.

- Coastal squeeze as a result of sea level rise and coastal erosion, with low rates of cliff recession due to the geological resistance of the bedrock. The SCA's rocky foreshore habitats and beaches may narrow or disappear, the latter including as a result of a reduction in sediment supply.
- Potential increase in the strength and frequency of tidal surges, putting natural and cultural assets at risk of flooding (current SMP policy to 'hold the line' with minimal intervention).
- Impacts of climate change on characteristic heathland and maritime grassland habitats, with potential for increased growth rates accelerating the spread of scrub and trees into the open coastal landscape, along with an increased prevalence of pests and diseases.
- Potential future change in woodland / tree species composition as new pests/diseases spread (particularly *Phytopthora* pathogens), as a result of a changing climate.



SCA 6: Valley of Rocks

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)





SCTs within the SCA: A High Coastal Heaths; 4P Moderate Energy Coastal Waters.

A popular and well-visited dramatic section of the Exmoor coast, showcasing extraordinary geology and geomorphology with spectacular rock formations, including Castle Rock and Rugged Jack, and highly fossiliferous exposures greatly shaped by later earth movements, periglacial activity, weathering and sea action. It contains valuable, nationally designated coastal habitats and supports rich bird life, including peregrine falcons, cliff colonies of guillemots, fulmars and razorbills. The SCA forms a dramatic landscape and seascape setting to Lee Abbey, and includes the coastal landmark of the 19th century Duty Tower, a romantic folly in the style of a watchtower.

The SCA's coastal area forms part of the Exmoor National Park and Exmoor Heritage Coast.



Natural / physical influences

- Dramatic coast showcasing the oldest Devonian rocks in North Devon (Lynton Beds). Highly fossiliferous exposures greatly shaped by later earth movements, periglacial activity, weathering and sea action.
- Grey craggy tors, scree slopes, wave-cut platforms, sea caves, square rocky blocks and boulders, the famous coastal landforms of Castle Rock and Rugged Jack towering over the sea.
- Different theories about the dry valley's ancient origins; the area plays a focal role in understanding Pleistocene geomorphology.
- SCA overlooked by the moorland summit of Hollerday Hill to the east (244m AOD), and is framed by Duty Point and the half-tide pyramid-shaped Lee Stone to the west.
- **Distinctive coastal geology extending along the seabed**, with Holocenederived sand and gravel sediments found further offshore. Sediments travel ashore to form the secluded Wringcliff Beach.
- Majority within the wider Bideford to Foreland Point Recommended Marine Conservation Zone, in recognition of its marine biodiversity – including shallowwater mixed sediments exposed to a moderate energy water environment.
- Waters gradually shelving to 20m depth, this part of the Bristol Channel
 experiencing moderate energy tidal streams, with exposure to westerly weather
 sweeping in from the Atlantic. Basking sharks are sometimes spotted in the waters.
- Nationally designated coastal habitats; species-rich maritime grasslands, over 140 species of lichen, tracts of heather, gorse and bilberry. Exmoor ponies and a unique herd of goats graze the landscape.
- Rich birdlife including peregrine falcons, cliff colonies of guillemots, fulmars and razorbills, and heathland species such as whinchat and wheatear.
- Commercially and recreationally fished species including conger, wrasse, rockling, bass, grey mullet and lobster. Wading birds feed along the shoreline at low tide, including oyster catcher and curlew.

Cultural and social influences (past and present)

- Evidence of prehistoric settlement and land use including hut circles, cairns and field banks, such as on the slopes below Castle Rock.
- **19**th **century Duty Tower** (Grade II), a romantic folly in the style of a watchtower. Associated with local legends, including the tragic 'Jenny's Leap' from the cliffs below, it is also used as a navigational day mark.

- Forms a dramatic landscape and seascape setting to Lee Abbey, a 19th century Gothic-style house and estate now used as a Christian retreat.
- Area steeped in local legend, including claims that Druids were having a riotous time in the landscape on a Sunday, when suddenly the Devil appeared amongst them and turned them all to stone.
- Valued 'honey pot' site since the Victorian era, with coastal walks via the SW Coast Path and Tarka Trail, scenic drives, mountain biking, climbing and picnicking. The valley also has a car park, historic cricket pitch and café.
- Low intensity water-based activities including sea kayaking, recreational fishing charters and sightseeing trips from Lynmouth, as well as other sight-seeing cruises passing by in the summer months. Hurlstone Point is a destination for rod and line fishermen.
- Outer waters used for sailing, as defined by the Royal Yachting Association.
- Marine area forms part of the wider North Devon Tidal Zone for testing tidal stream arrays.

Perceptual and aesthetic influences

- A mysterious and ever-changing seascape, colours and moods greatly influenced by changing light and weather conditions swept along by the Bristol Channel. Castle Rock shrouded in low cloud adds to the mystique of the coastal landscape.
- Dramatic and distinctive character has inspired and intrigued for centuries, from the 18th century poets Coleridge, Wordsworth and Southey, to R.D. Blackmore (Lorna Doone) in the 19th century.
- **Its spiritual sense of place** forms a poignant setting to visitors to the Lee Abbey Christian retreat, offering a true sense of escapism.
- More recently the spectacular scenery has formed a backdrop for TV
 programmes such as Top Gear, a Paul McCartney music video and for events such
 as car rallies.
- The distinctive, rugged and imposing rock formations recognisable in long views from the West Exmoor Coast, with strong intervisibility with The Hangmans (SCA 08). They also form an imposing and strongly recognisable backdrop to landward views from the sea.
- Associated with clear, dark night skies contrasting with long views across the Bristol Channel to the developed Swansea skyline with a lit night-time skyline.

The special qualities of this seascape that would be most sensitive to change include:

- Extraordinary geology and geomorphology with spectacular rock formations, including Castle Rock and Rugged Jack.
- Valued maritime flora and fauna, including ageing coastal heath, lichens and ferns, seabird colonies and basking sharks.
- Varied opportunities for enjoyment, including rock climbing, walking on dramatic sections of the SW Coast Path, fishing and wild swimming.
- Rugged, remote and often 'spiritual' seascape with clear dark night skies.
- Far-reaching views across the Bristol Channel to South Wales, including the contrasting developed skyline of Swansea.







Coastal land / marine resource management

- Ongoing need to manage levels of grazing (including by the distinctive feral goat herd and Exmoor ponies) on heathland and grassland commons, which have seen the encroachment of bracken, gorse and secondary woodland in some locations, and over-grazing in others.
- A spread of bracken and scrub has also affected the traceability of some important archaeological sites and earthworks, as well as their overall condition.
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).

Aquaculture and fishing

- Uncertainty surrounding future Marine Conservation Zone designation (the Bideford to Foreland Point recommended site is currently under consideration by Defra), and the impacts any future designation might have on fishing activity in the wider area. A 'no fixed nets' restriction is already in place across much of the SCA.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism

- Considerable human intervention in the lowest part of the valley (car park, café, cricket ground, picnic area, toilets etc), forming a gateway into the landscape and hub of activity contrasting with the rugged and 'wild' qualities of the rocky coast and sea.
- Some erosion of scree slopes on popular climbing routes (e.g. below Rugged Jack), although the geological SSSI is currently assessed as in favourable condition.
- Levels of remoteness and tranquillity occasionally affected by the sounds of jet skis and motorboats passing through the waters, including users travelling from Swansea and Lynmouth.

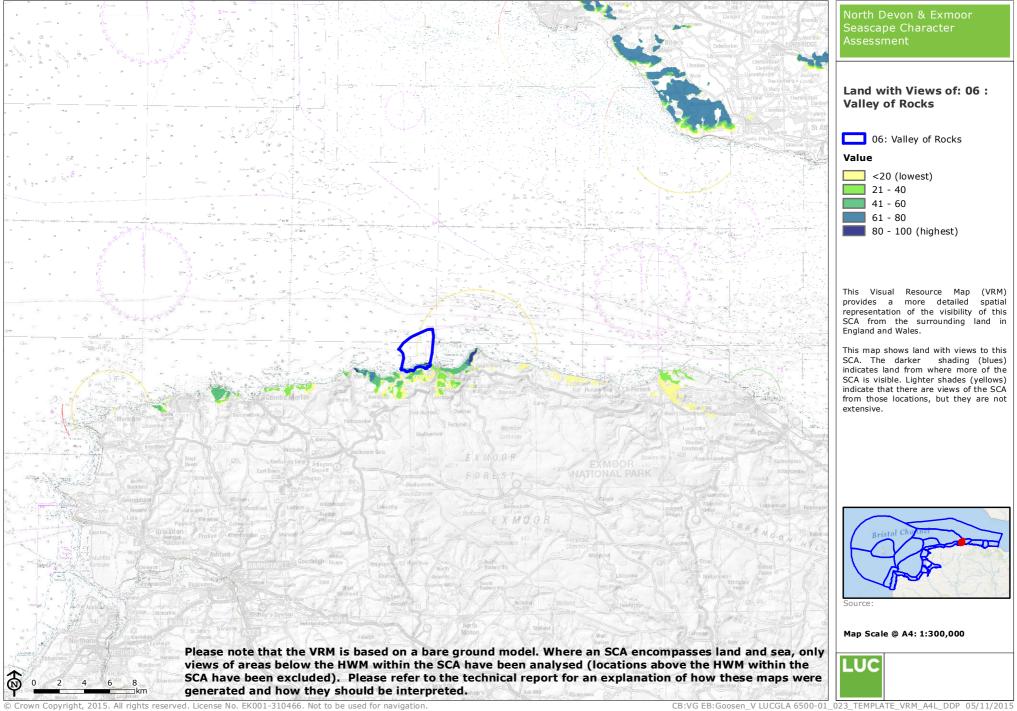
Other development pressures / impacts (continued over the page)

Strong tidal energy resource, likely to see further testing for tidal stream developments as part of the North Devon Tidal Zone, which extends up to 10km offshore (also covering the waters within SCAs 3, 5, 7, 8 and 9).

• Views to industrial and urban development on the South Wales coast impacting on perceptions of tranquillity, remoteness and dark night skies (the Exmoor international Dark Sky Reserve is centred on the moorland core behind the coast).

Natural processes and climate change

- Coastal squeeze as a result of sea level rise and coastal erosion, with low rates of cliff recession due to the geological resistance of the bedrock. The SCA's rocky foreshore habitats and beaches may narrow or disappear, the latter including as a result of a reduction in sediment supply.
- Potential future change in woodland / tree species composition as new pests/diseases spread (particularly *Phytopthora* pathogens), as a result of a changing climate.



SCA 7: Lee and Woody Bays

🔲 07: Lee and Woody Bays Seascape Character Types 235 4M: Sheltered Rocky and Sandy Bays **Exmoor National Park** Seascape Character Types B: High Wooded Coasts, Combes and Cleaves F: Enclosed Farmed Hills with Commons © Crown Copyright and database right 2015 Ordnance Survey Licence No.100021929...... © Crown Copyright, 2015. All rights reserved. License No. EK001-310466. Not to be used for navigation.

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)



SCTs within the SCA: B High Wooded Coast, Combes and Cleaves; F Enclosed Farmed Hills with Commons; 4M Sheltered Rocky and Sandy Bays.

The SCA comprises two smoothly arched bays of near-vertical cliffs, ledges and bluffs and distinctive red and grey exposures displaying diagonal strata on the lower cliff slopes. The bays are contained by Duty Point to the east and Wringapeak to the west. At Woody Bay a spectacular waterfall plunges down steep wooded slopes to the rocky beach. This is a dynamic coast shaped by the action of the sea which contains nationally and internationally important sessile-oak woodland, ferns and lichens. Long views are available out to the Bristol Channel towards Swansea and the Mumbles headland on the distant horizon.

The SCA's coastal area forms part of the Exmoor National Park and Exmoor Heritage Coast.



Natural / physical influences

- Two smoothly arched bays contained by Duty Point to the east and Wringapeak
 to the west. A spectacular waterfall plunges down steep wooded slopes to the
 rocky beach at Woody Bay.
- Cliffs, ledges and bluffs of fossil-rich Lynton Slates, overlain by Hangman sandstones at Woody Bay. Distinctive red and grey exposures displaying diagonal strata characterise lower cliff slopes.
- Sheer near-vertical cliffs of over 100m AOD forming a dramatic backdrop to Woody Bay; contrasting with the low and Exmoor's only flat-topped cliffs around Lee Bay.
- Dynamic coast greatly shaped by sea action, including narrow sand and pebble beaches, intertidal reefs and boulders strewn with seaweed, rockpools, wave-cut platforms and sea caves.
- Continuous tracts of nationally and internationally important sessile-oak
 woodland, ferns and lichens clothing the coastal slopes, home to barbastelle
 bats. Rare stands of endemic Devon Whitebeam found at Woody Bay.
- **Distinctive coastal geology extending along the seabed**, covered by dynamic Holocene-derived sand and gravel sediments. Sediments travel ashore to feed the tidal heaches.
- Shallow waters reaching a maximum of 12m depth, the outer edges experiencing moderate energy tidal streams associated with this part of the Bristol Channel. Fast-flowing tides quickly cut off parts of the foreshore.
- Within the wider Bideford to Foreland Point Recommended Marine
 Conservation Zone; valued habitats including intertidal rocky reefs and shallow water mixed sediments. Wider site important for cetaceans, grey seals and as
 spawning, nursery and juvenile grounds for bass and salmon.
- Commercially and recreationally fished species including bass, tope, mullet, smoothound and rays.

Cultural and social influences (past and present)

- Heritage features relating to past trade and industry, including a Grade II
 Listed lime kiln in Woody Bay dating from 1743. Two lime kilns at Lee Bay include
 one converted into a modern house and chapel. Post-medieval quarries are also
 hidden within the wooded slopes.
- Wreck of the Sunshine off Crock Point an English yacht which caught fire and foundered in windy conditions in 1902. Smugglers' Leap on the coastal toll road said to be where a tussle between a smuggler and revenue man ended in both tumbling down to the rocks below.

- Forms a landscape and seascape setting to Lee Abbey, a 19th century Gothicstyle house and estate now used as a Christian retreat. The house is visible above Lee Bay in views from the sea.
- Remains of a pier, tidal swimming pool and landing posts from 19th plans to develop Woody Bay as resort, by Colonel Lake of the Hunters Inn (SCA 8).
- **Pier completed for the arrival of the first steamer in 1897** but destroyed during the storms of 1899 and 1900. A coastal carriageway from the period links to Heddon's Mouth, as part of the SW Coast Path.
- Large Victorian buildings of Martinhoe Manor and Woody Bay Hotel, visible from the sea. Occasional white-washed cottages also peep through the wooded slopes.
- South West Coast Path runs the full length of the coast, supplemented by a number of other waymarked footpaths and bridleways tracing the combes down to the sea. Parts of the western slopes of Woody Bay are owned and managed by the National Trust.
- Marine area forms part of the wider North Devon Tidal Zone for testing tidal stream arrays.
- Limited vehicular access resulting in a strong sense of remoteness and detachment from human activity.
- **Bays popular for wild swimming**, the Victorian lido at Woody Bay still used at low tide. Viewing and showering beneath the waterfall is a draw to visitors who discover this hidden bay.
- Lobster and crab potting in the rocky waters, as well as recreational rod-and-line fishing from the rocky headlands and old pier. Low levels of commercial netting and use of pelagic gear also take place across the wider area.
- Beachcombing, caving, cliff climbing and rock-pooling popular along the shoreline – the rock pools home to an ever-changing array of creatures swept in by the tides, including limpets and sponges.
- Low intensity water-based activities including sea kayaking, recreational
 fishing charters and sightseeing trips (including from Lynmouth), as well as more
 long-distance sight-seeing cruises passing by (e.g. the historic Waverley Paddle
 Steamer).
- Waters used for sailing, as defined by the Royal Yachting Association, the sheltered bays sometimes used for temporary anchorage.

Perceptual and aesthetic influences

- A highly tranquil and often 'spiritual' seascape with a strong historic sense
 of place; offering a true sense of escape from the modern world.
- Lee Bay framed to the east by the dramatic towering form of Castle Rock and Rugged Jack, fronting the distinctive Valley of Rocks (SCA 6). Duty Point tower and the Lee Stone mark the eastern bay, used as navigational day marks.

- Long views often channelled out to sea, featuring sailing yachts, tankers and other commercial vessels moving along the Bristol Channel, Development at Swansea and the Mumbles headland are discernible on the distant horizon.
- Associated with spectacular sunsets and dark night skies as part of the wider Exmoor Dark Sky Reserve, attracting star gazers.
- Senses stimulated by changing sounds and sights of nature; the movements of the tides and waves lapping the shore, changing colours of the woodlands and leaves moving in the breeze, and the calls of seabirds.
- A safe haven created by the sheltered bays, although quickly moving tides and exposure to northerly storms serve as a reminder of the powerful force of the wider Bristol Channel.







The special qualities of this seascape that would be most sensitive to change include:

- Nationally and internationally important sessile oak woodlands, with lichen and fern-rich flora, extending down to the water's edge.
- Varied marine and intertidal habitats, including shallow-water mixed sediments, intertidal reefs and boulders, rock pools and sea caves.
- Historic lime kilns, the Lee Abbey estate and relics from Victorian plans to develop Woody Bay as a resort including the old jetty revealed at low tide.
- The spectacular waterfall plunging onto the beach at Woody Bay, the coast's sheltered beaches and opportunities for wild swimming.
- Associations with a smuggling coast, including the infamous 'Smuggler's Leap' on the toll road.
- Highly tranquil with open and uninterrupted views across the Bristol Channel to South Wales, including the contrasting developed skyline of Swansea.







Coastal land / marine resource management

- Need for continuing work to restore traditional woodland management and grazing to the woodlands, which have suffered from a reduction in ground flora and species diversity, including a decrease in the numbers of endemic whitebeam specimens.
- Spread of non-native and invasive species within the oak woodlands, including rhododendron, beech and sycamore, requiring ongoing clearance efforts.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.

Aquaculture and fishing

- Uncertainty surrounding future Marine Conservation Zone designation (the Bideford to Foreland Point recommended site is currently under consideration by Defra), and the impacts any future designation might have on fishing activity in the wider area.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism

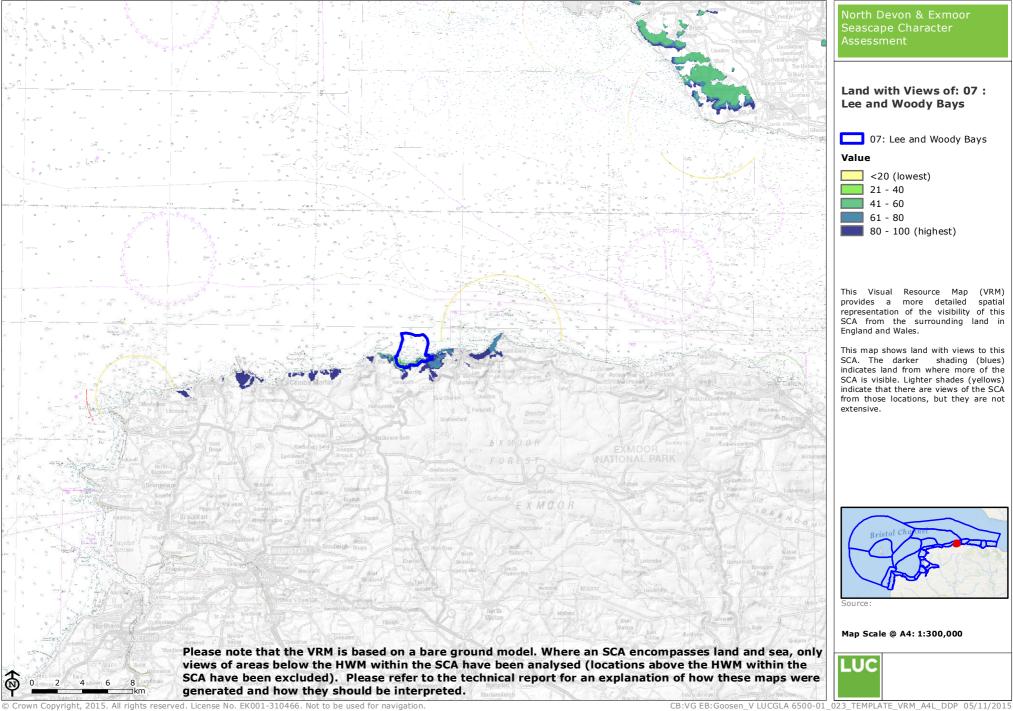
- Significant sections of inaccessible coast and foreshore due to steep topography and tree cover, although this does contribute to the SCA's remote and highly tranquil qualities.
- Levels of remoteness and tranquillity occasionally affected by the sounds of jet skis and motorboats passing through the waters, including users travelling from Swansea and Lynmouth.

Other development pressures / impacts

- Strong tidal energy resource, likely to see further testing for tidal stream developments as part of the North Devon Tidal Zone, which extends up to 10km offshore (also covering the waters within SCAs 3, 5, 6, 8 and 9).
- Views to industrial and urban development on the South Wales coast impacting on perceptions of tranquillity, remoteness and the dark night skies strongly associated within this seascape.

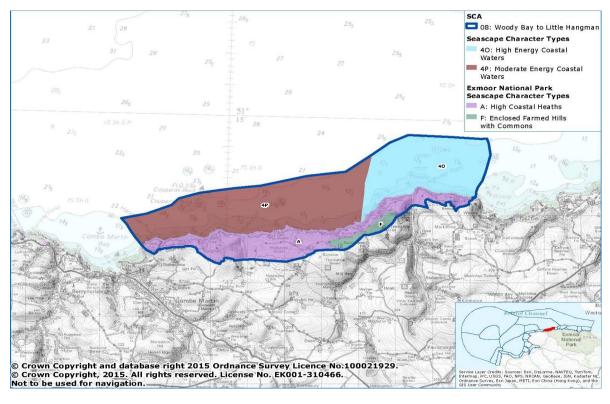
Natural processes and climate change

• Coastal squeeze as a result of sea level rise and coastal erosion, with low rates of cliff recession due to the geological resistance of the bedrock. The SCA's rocky foreshore habitats and beaches may narrow or disappear, the latter including as a result of a reduction in sediment supply.



SCA 8: Woody Bay to Little Hangman

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)



SCTs within the SCA: A High Coastal Heaths; F Enclosed Farmed Hills with Commons; 40 High Energy Coastal Waters; 4P Moderate Energy Coastal Waters.

Extending between Wringapeak in the east and Hangman Point in the west, this is a dynamic stretch of the Exmoor coast, strongly shaped by tides and exposure to the Atlantic, including wave cut platforms, sea caves, historic land slips, boulder-strewn beaches and jagged reefs extending offshore. It comprises steep, rugged coastal cliffs, highest in England, backed by rounded moorland hills. The coastal waters containing shallow rocks and reefs creating hazards for vessels. It supports a rich bird life which attracts bird watchers and tracts of colourful internationally designated coastal heathland, with stands of trees clinging to the steep cliffs. Offshore, the waters are important for cetaceans, grey seals and as spawning, nursery and juvenile grounds for bass and salmon. The steeply enclosed Heddon Valley provides a hub of activity within the sheltered, historic enclave which contrasts to the open and often 'wild' coastline.

The SCA's coastal area forms part of the Exmoor National Park and Exmoor Heritage Coast.



Natural / physical influences

- Steep, rugged coastal cliffs (highest in England) and bluffs, backed by rounded moorland hills reaching 349m AOD at Holdstone Down. Coastline intersected by deep-cut cleaves, combes and waterfalls.
- A dynamic coast greatly shaped by strong tides and exposure to the Atlantic, including wave cut platforms, sea caves, historic land slips, boulderstrewn beaches and jagged reefs extending offshore.
- Scalloped cliff face revealing the varied colours of the underlying geology –
 purples, greys, greens and reddish-browns of the Hangman Sandstone formation.
 Trees and stands of bracken cling perilously to the cliffs, in places extending down
 to the shoreline.
- **Dramatic wooded combe of the River Heddon** meeting the sea at Heddon's Mouth here dense SSSI and SAC-designated sessile oak woodlands grade to open coastal heathland and exposed scree slopes.
- Extensive areas of nationally and internationally-designated coastal heathland with bracken-clad slopes supporting rare fritillary butterflies. The purple-covered cliffs and hill summits often visible from considerable distances, including from out to sea.
- Distinctive coastal geology extending along the seabed, with rocky reefs protruding from the shoreline, and dynamic sand and gravel sediments from the Holocene epoch replenishing the tidal beaches.
- Maximum sea depth of 20m, with shallow rocks and reefs creating hazards
 (Copperas Rock is marked by a conical buoy). Strong overfalls off Highveer Point
 and fast-flowing tides create challenging sea conditions.
- Within the Bideford to Foreland Point Recommended Marine Conservation Zone; including subtidal rocky habitats, fragile sponge and anthozoan communities, and populations of rare pink sea fan. Wider site important for cetaceans, grey seals and as spawning, nursery and juvenile grounds for bass and salmon.
- Waters supporting a variety of commercially important fish species including bass, wrasse, conger, mackerel and pollock; the rocky reefs also providing habitats for crabs and lobsters.
- Rich birdlife attracting bird watchers, including peregrine falcons and breeding cliff colonies of guillemots, kittiwakes, shags, fulmars, herring gulls and razorbills.
 Wading birds feed along the shoreline at low tide.

Cultural and social influences (past and present)

- **Evidence for ancient human activity**, including Bronze Age hut circles, cairns and medieval lynchets on coastal slopes and moorland summits.
- Roman fortlett, beacon and signalling station at Martinhoe Castle, sited in a strategic position above Heddon's Mouth. The fortlett was briefly occupied in the 1st century AD.

- Industrial heritage illustrated by 18th century lime kilns at Heddon's Mouth, visible from the sea. Lime and coal from South Wales would have been delivered by boat, the last load arriving in 1870.
- Ship wrecks illustrating the dangerous seas; including an English brigantine Ethel, lost in force 10 winds in 1891. The crew survived.
- **Coastal carriageway** (now part of the SW Coast Path) traversing the upper slopes of Highveer Point to Woody Bay a legacy of ultimately unsuccessful 19th century plans to develop Woody Bay as resort, by Colonel Lake of the Hunters Inn.
- **Popular Heddon Valley**, with the Hunters Inn, car park, National Trust visitor centre, and ease of access (including disabled) to Heddon's Mouth. The valley averages over 250 visitors per day in the summer.
- Upper coastal slopes crossed by the SW Coast Path and Tarka Trail, but with foreshore (and boat) access limited to Heddon's Mouth.
- High cliffs, ledges, platforms and sea caves explored by advanced climbers seeking an exhilarating adventure along this wild coast – known as The Hidden Edge of Exmoor due to its largely inaccessible nature.
- Lobster and crab potting in the rocky waters, as well as low levels of commercial netting and use of pelagic gear across the wider area.
- Recreational rod-and-line fishing from Heddon's Mouth and the Hangman Rocks (at low tide).
- **Low intensity water-based activities** including sea kayaking, recreational fishing charters and sightseeing boat trips, as well as more long-distance sight-seeing cruises passing by (e.g. the historic Waverley Paddle Steamer).

Perceptual and aesthetic influences

- Little Hangman and Great Hangman forming strongly recognisable landforms along the coast and from out to sea, dramatically framing Combe Martin Bay (SCA 10) and intervisible with Lundy (SCA 15).
- Overriding sense of the sea with wide skies and distant views across the Bristol Channel to the western part of Swansea Bay and Gower. Views to the land opposite provide a sense of enclosure.
- **Strong sense of elevation and isolation**. The inaccessibility of the cliff slopes and foreshore across the majority of the area further enhancing a sense of isolation and solitude.
- Sense of danger when storms and winds sweep in from the Atlantic; rough seas, crashing waves and white water particularly apparent around Highveer Point and Copperas Rock.
- Contrasting hub of activity in the steeply enclosed Heddon Valley; a sheltered, historic enclave compared to the open and often 'wild' coastline characterising the remainder of the SCA.
- Marked difference between the heathland habitats characterising the cliffs and the bright green regular pattern of fields behind, particularly apparent around Challacombe and Trentishoe.

The special qualities of this seascape that would be most sensitive to change include:

- High, windswept cliffs plunging to the sea, unexpected waterfalls and the distinctive coastal headlands of the Hangmans and Holdstone Down.
- Tracts of colourful internationally designated coastal heathland, with stands of trees clinging to the steep cliffs.
- Diverse marine habitats and species including subtidal rocky habitats, fragile sponge communities and populations of the rare pink sea fan.
- Historic features including the Roman fortlett at Martinhoe Castle and coastal lime kilns, including at Heddon's Mouth (visible from the sea).
- A sense of danger and remoteness associated with the fast tides and quick-moving waters.
- Elevated, exposed character with open views across the Bristol Channel to the Gower, with westward views featuring the distinctive form of Lundy sitting behind the Combe Martin and Ilfracombe coastline.







Coastal land / marine resource management

- Continuing collaborative efforts required to manage the open heathland and maritime grassland habitats, including through grazing and swaling, to reduce the encroachment of bracken, gorse and young secondary woodland (including onto valued historic features such as Martinhoe Castle).
- Rope access required to tackle the spread of invasive species such as rhododendron on inaccessible cliff slopes.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.

Aquaculture and fishing

- Uncertainty surrounding future Marine Conservation Zone designation (the Bideford to Foreland Point recommended site is currently under consideration by Defra), and the impacts any future designation might have on fishing activity in the wider area.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism

- Apart from Heddon's Mouth, the entire foreshore is inaccessible by road or foot with the SW Coast Path traversing cliff slopes and summits. This does, however, enhance the remote, wild qualities of the seascape.
- Popular 'honey-pot' site of Heddon's Mouth, with access, infrastructure and visitor impacts requiring sensitive management by the National Trust to protect and enhance the special qualities of the area, whilst creating opportunities for its enjoyment and understanding.
- Valued levels of remoteness occasionally affected by the sounds of jet skis and motorboats passing through the waters, including users travelling from the nearby harbours of Combe Martin, Watermouth and Ilfracombe (as well as across the Channel from Swansea).

Other development pressures / impacts

• Strong tidal energy resource, likely to see further testing for tidal stream developments as part of the North Devon Tidal Zone, which extends up to 10km offshore (also covering the waters within SCAs 3, 5, 6, 7 and 9).

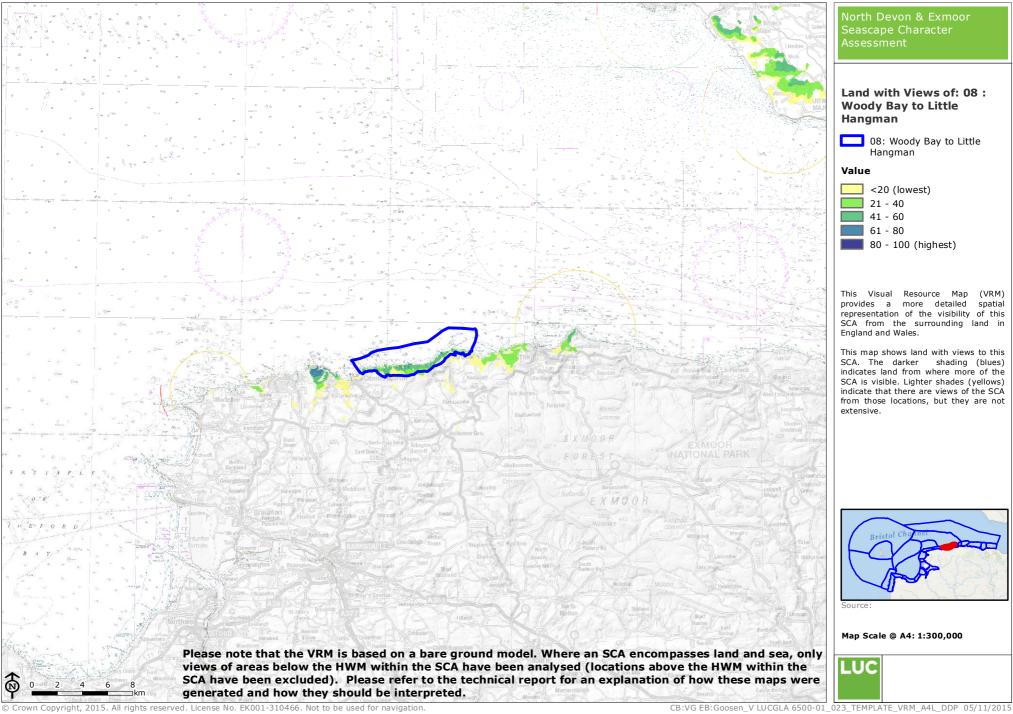
Natural processes and climate change

- Eroding cliffs and storm damage to shoreline archaeology, including the lime kilns at Heddon's Mouth which periodically require restoration by the National Trust. Coastal erosion, increased frequency and intensity of storms and coastal squeeze likely to intensify as a result of climate change.
- Impacts of climate change on characteristic heathland and maritime grassland habitats, with potential for increased growth rates accelerating the spread of scrub and trees into the open coastal landscape, along with an increased prevalence of pests and diseases.



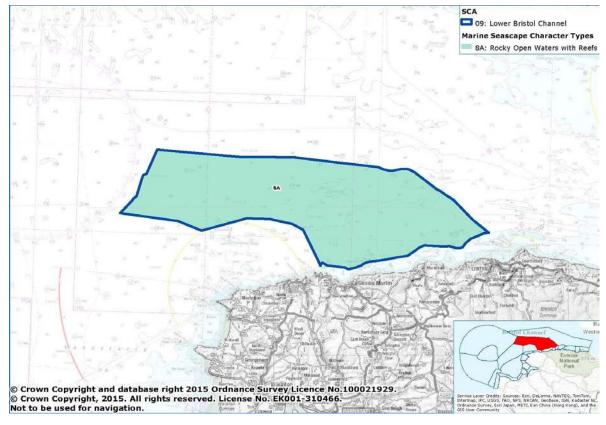






SCA 9: Lower Bristol Channel

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)





SCTs within the SCA: 8A Rocky Open Waters with Reefs.

An open expanse of sea characterised by a high tidal range and channels running perpendicular to the east-west tidal currents, this SCA is also susceptible to extreme weather conditions sweeping in from the Atlantic, including storm surges. It provides a rich and important fishing ground exploited by commercial trawlers from South Wales and North Devon ports including Ilfracombe, Appledore and Bideford. The seabed is composed of course sediments and high and moderate energy circalittoral rock and biogenetic reefs home to tide-swept faunal communities. The area is of historic and ongoing importance for maritime trade, with a range of shipwrecks tracing historic activities. Extensive, open views across the waters are available to the contrasting coastlines of the industrialised sections of the South Wales coast and the remote coastline of Exmoor and North Devon to the south, with its high rugged cliffs and dark night skies.



Natural / physical influences

- Open expanse of sea with water depths ranging between 14 and 46 metres; bathymetry and seabed topography influenced by the presence of sand and gravel banks.
- Jurassic mudstone, sandstone, limestone and clay seabed, in parts overlain
 by thick Holocene-derived deposits of sand and gravel. Strong tidal movements
 combined with suspended sediment resulting in high levels of turbidity.
- Channels running perpendicular to the east-west tidal currents, their strength
 accelerating in the east due to the funnelling effect of the adjacent land. These
 include relict paleaochannels from the Holocene epoch.
- The Bristol Channel has the **second highest tidal range in the world** (at between 12 and 14 metres); after the Bay of Fundy in Canada.
- Exposure to weather rolling in from the Atlantic creating areas of high wave climate especially in the west, where protection from surrounding land diminishes.
 Conditions particularly treacherous when wind direction opposes the strong tides.
- Areas of high and moderate energy circalittoral rock and biogenetic reefs home to tide-swept faunal communities. The SCA's many ship wrecks also create valued artificial reefs.
- Coarse sediments forming havens for seasonal variations of fish species, including commercially important stocks of cod, plaice, bass, sole, turbot, whiting, pouting and all species of ray.
- Harbour porpoises and common dolphins occasionally spotted in the seas.

Cultural and social influences (past and present)

- Known vulnerability of the surrounding coastline to Atlantic conditions over the
 centuries, including a massive flood event in 1607 thought to have been caused
 by a storm surge. Thousands of people drowned, farmland inundated and livestock
 destroyed on both shores of the Channel.
- Long-standing strategic role of the wider Bristol Channel as a key entry point into Britain by sea. Both the Roman and Viking fleets made approaches via the Bristol Channel and occupied the wider area. Fleets travelling to the **D-Day landings in WWII** also passed through these waters.
- Strong historical and current associations with maritime trade and transport (including the long-abolished slave trade), with human activity continuing to have a strong influence on character.
- Maritime trade burgeoned from the medieval period onwards; particularly
 following the Industrial Revolution which drove the major development and
 expansion of ports along the channel including Swansea, Cardiff and Bristol (as well
 as the smaller North Devon ports and harbours).

- Cross-channel trade between South Wales and North Devon ports flourished during the same period – the exchange of locally sourced materials such as coal and limestone further feeding the prosperity of the wider region.
- Range of reported shipping losses over many centuries, including small
 wooden vessels engaged in coastal trade, larger deep ocean-going voyagers such
 barques and brigantines, and vessels engaged in wartime conflicts.
- Number of wrecks on the seabed including the SS Yesso, a steamship which
 collided with a barque en-route to Baltimore from Newport; the SS Bengrove,
 torpedoed by a U-boat in 1915 with all crew saved and landed at Ilfracombe; and
 the anti-submarine yacht HMS Princess, which collided with a steamer in 1940.
- Today the historic wrecks form important artificial reefs and popular destinations for fishing and scuba diving charters.
- Seabed crossed by trans-Atlantic telecommunications cables, including the recently completed Hibernia Express network connecting North America, the UK and Europe.
- Continuing role of the wider Bristol Channel as an internationally important maritime trade and transport route, with thousands of ship movements per day.
- Recreational sailing and cruising routes linking destinations along both the Welsh and English coasts (including the nearby harbours of Lynmouth and Ilfracombe).
- **Rich fishing grounds** exploited by commercial trawlers from South Wales and North Devon ports including Ilfracombe, Appledore and Bideford.

Perceptual and aesthetic influences (continued over)

- Susceptible to extreme weather conditions sweeping in from the Atlantic, including storm surges. During these periods a sense of danger and relative wildness can pervade despite views to settlement and associated 'safety'.
- Flashing navigation marks contributing to the night-time character of the area, including the beam of Nash Point lighthouse visible from the Exmoor coast, Foreland Point lighthouse visible from South Wales, and the nearby flashing markers of Copperas Rock (SCA 8) and Horseshoe Rocks (SCA 18).
- Lundy (including the beam of its North Lighthouse) forming a distinctive seascape feature in long views from the west of the SCA.
- **Contrasting views** to industrialised sections of the South Wales coast (including wind turbines on distant hills) and the remote coastline of Exmoor and North Devon to the south, with its high rugged cliffs and dark night skies. Lights from development at Ilfracombe feature in views.
- Views to the flat-topped light golden cliffs of the Glamorgan coast featuring from the eastern half of the SCA, backed by mountains. The distinctive profile of Worms Head (Gower AONB) features on northerly horizons from the western half.
- Regular glimpses of large-scale container ships and tankers travelling to and from the surrounding major ports bringing this marine area to life, reinforcing its strong sense of place and long-standing role as a major seafaring route.

The special qualities of this seascape that would be most sensitive to change include:

- Sense of enclosure and shelter provided by the adjacent North Devon and South Wales landforms.
- Complex, dynamic seabed habitats home to commercially important fish species; supporting the heritage and economy of local ports and harbours.
- Historic and ongoing importance for maritime trade; range of shipwrecks tracing its historic uses (today popular for scuba diving and fishing charters).
- Strong contrast between views to the wild, rugged cliffs and moorlands of Exmoor (to the south) and the industrialised coast of South Wales (to the north).
- Long views changing by the hour, influenced by the prevailing weather and tides, the position of the sun and the movement of boats and other vessels.
- The seascape's role as part of the wider maritime setting to Exmoor National Park, North Devon AONB and Gower AONB.







Marine resource management

- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities, offshore development, and climate change).
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed up on the surrounding coastlines, as well
 as a greater risk of major pollution incidences.
- Tighter fishing restrictions in other parts of the Bristol Channel could lead to greater pressures on the fish stocks found within this SCA.

Aquaculture and fishing

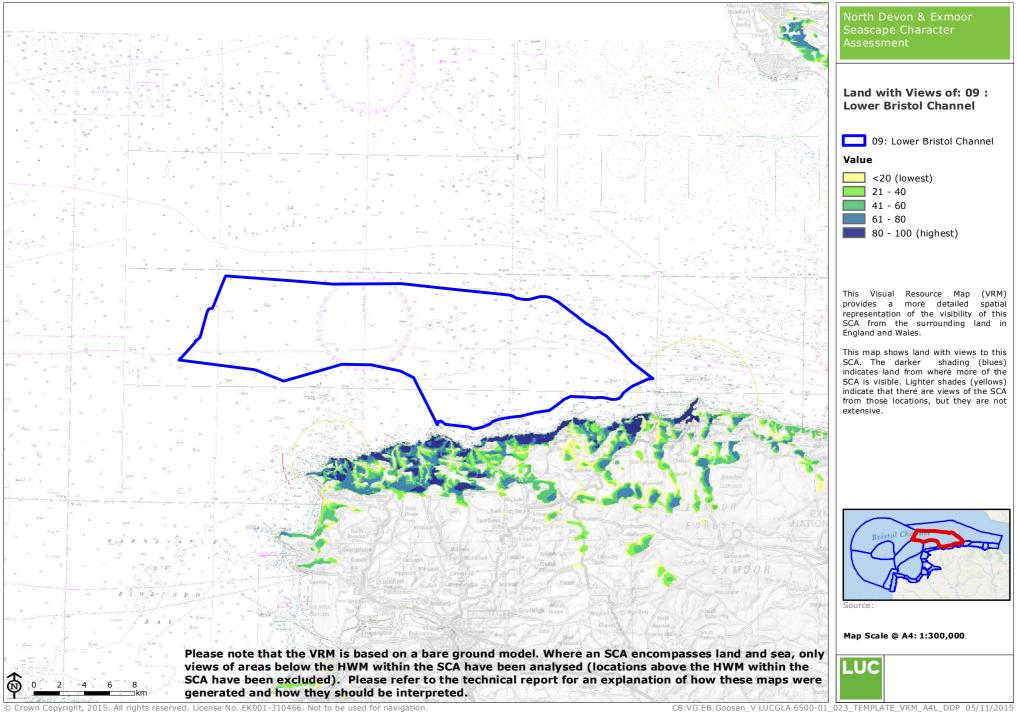
• Insecure economic viability for the commercial fishing fleets using these waters, who are much valued as part of the community, local economy and heritage of the wider area.

Other development pressures / impacts

- Increased future demand for aggregates extraction potentially leading to sites within this SCA being explored for dredging (currently none of the SCA is licenced for this activity).
- Strong tidal energy resource, likely to see further testing for tidal stream developments as part of the North Devon Tidal Zone, which extends up to 10km offshore from the coastline from Foreland Point to Hangman into this SCA (also covering SCAs 3, 4, 5, 6, 7 and 8).
- Ongoing national demand for alternative sources of renewable energy production; although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward which could impact on the undeveloped character of this seascape.
- Any new coastal developments would be prominent in the open, expansive views offered from this SCA.

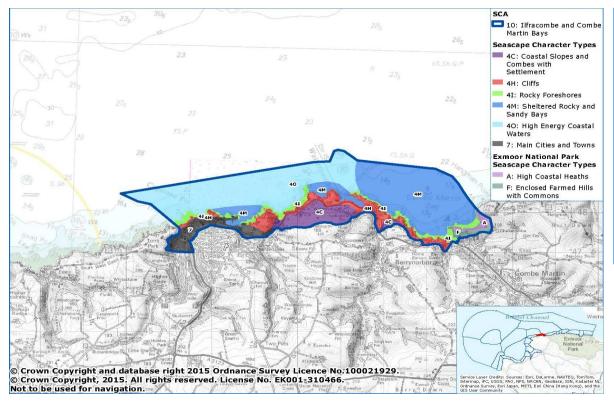
Natural processes and climate change

- Increased frequency of storm surges and sea level rise as a result of climate change, accelerating the shifting nature of the sand/gravel banks within the SCA; disrupting sediment flow/load within the waters; and putting coastal communities at greater risk of coastal flooding, erosion and storm damage.
- More intense storm conditions and prolonged rainfall, as a result of climate change, also with the potential to increase sediment flow into the Bristol Channel from the surrounding estuaries, including the Severn.



SCA 10: Combe Martin and Ilfracombe Bays

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)



SCTs within the SCA: A High Coastal Heaths; F Enclosed Farmed Hills with Commons; 4C Coastal Slopes and Combes with Settlement; 4H Cliffs; 4I Rocky Foreshores; 4M Sheltered Rocky and Sandy Bays; 4O High Energy Coastal Waters; 7 Main Cities and Towns.

Straddling the boundaries of the North Devon AONB and the Exmoor National Park, this is a dramatic, wild and jagged coastline, with Ilfracombe located at its western extent. The area comprises jagged headlands and small bays of grey sand/shingle found between jutting rocky foreshores and a series of cliffs punctuated by limestone caves and secluded coves. Large sections are nationally designated for their geodiversity and for important maritime habitats. It is valued for its historic harbour, Victorian seaside resorts, seafaring heritage and associations with ship wrecks, smuggling and pirates.

The SCA's coastal area forms part of the North Devon Coast AONB, the Exmoor National Park and the North Devon Heritage Coast.



Natural / physical influences

- Largely north-facing coast with a fractured series of cliffs, caves and secluded coves. Jagged headlands and small bays of grey sand/shingle found between jutting rocky foreshores.
- Underlying geology of hard Devonian shales and sandstones, with outcrops of fossil-rich limestone. Exposed cliffs of varying heights displaying a distinctive tilted, multi-coloured stratigraphic sequence.
- Hele, Samson's & Combe Martin Bays recognised of considerable national importance for Devonian stratigraphy, palaeontology and palaeogeography (designated as SSSI).
- Coastline carved by deep combes draining from the plateau behind, separated by broad, rounded ridges extending to the coastal edge.
- **Distinctive geology extending offshore**, with rocky reefs protruding from the shoreline. Dynamic coarse-grained sand and gravel sediments shaped and shifted by the tides; water deepening to just over 20m.
- Waters within the Bideford to Foreland Point Recommended Marine
 Conservation Zone, supporting populations of barnacles, limpets and bladder
 wrack; pools and overhangs with encrusting sponges and anemones; and valued
 areas of Sabellaria spinulosa (honeycomb worm) reef. Common dolphins
 frequently spotted.
- Natural harbours at Ilfracombe, Water Mouth and Combe Martin providing shelter from prevailing south-westerlies. Small inlet at Water Mouth stretching inland, with mudflats exposed at low tide.
- Mosaics of maritime grassland, heath, shrubby woodland and scrub along
 the cliff tops and sloping faces. Home to breeding colonies of seabirds,
 including fulmars, shags, cormorants, herring gulls and waders such as
 oystercatchers.
- Foothills of Little Hangman rising behind Wild Pear Beach, part of the wider Exmoor Coastal Heaths SSSI which extends into SCA 8.
- Range of commercially and recreationally exploited fish species, including cod, whiting, bass, conger, mackerel and rays; the rocky waters hosting lobsters and crabs.

Cultural and social influences (past and present)

- **Hillsborough Iron Age promontory fort** (a Scheduled Monument) towering above Ilfracombe harbour, also the site of an 1800s gun emplacement. Its impressive double earthworks are still visible. Formal Victorian pathways make it one of the earliest national examples of countryside conservation.
- The earthwork remains of an Iron Age univallate hillfort, Newberry Camp are also found overlooking Sandy Bay, west of Combe Martin.

- Combe Martin associated with silver and later iron mining (adits visible in the cliffs from the sea on Hangman, SCA 8). Mining ceased by the end of the 19th century as market gardening and tourism took hold; but a landslide in 1890 ended the town's port function.
- 18th and 19th century lime burning for fertiliser (using local limestone), fuelled by charcoal or coal shipped in from South Wales. Surviving example at Larkstone with coastal quarries at Napps, Hillsborough and Rillage Point. Remote kilns also provided good cover for importing contraband.
- Notorious smuggling coast, Samson's Bay named after a local smuggler. Several deep caves nearby stored contraband, a gully cut through the hillside to conceal ponies transporting the goods inland.
- Safe and accessible Ilfracombe harbour, its ancient quay rebuilt in 1760. Long associations with fishing, ship-building and cross-channel trade. The oldest working lighthouse in the country (since 1522) is the Grade I Listed St Nicholas' Chapel, on the aptly named Lantern Hill.
- Ilfracombe also a key disembarkation point for naval ships involved in foreign conflicts, including the 14th century Siege of Calais. A local Naval base until the early 1800s, the town was also involved in customs work.
- Clusters of 18th and 19th century ship wrecks, including the London carrying prisoners to the West Indies. Wrecked off Rapparee Cove in 1796, 40 prisoners drowned whilst four chests of treasure recovered; gold coins discovered on a beach nearly 200 years later. 20th century coastguard cottages are located on Rillage Point.
- **PLUTO experiments during WWII** included a trial pipeline connecting Swansea to Watermouth in 1943, designed to supply fuel to support the Normandy landings and invasion of occupied Europe ('Pipelines Under the Ocean').
- Growth of tourism (including a marine collecting craze) in the 19th century
 displayed in the impressive vernacular of the seaside towns; rows of pastel and
 white coloured villas, hotels and recent development extending up combe slopes.
- The **Tunnels Beaches** at Ilfracombe, created as tidal bathing pools in the era, remain popular for bathing and beach activities. The remote **Wild Pear Beach** in the east of the SCA is known as a naturist beach.
- Today, ten registered fishing vessels at Ilfracombe working the Bristol
 Channel, landing rays along with plaice, sole, turbot, monkfish, bass, john dorey,
 gurnard and conger. Squid, lobster, crab and shellfish are also landed squid
 exported to the continent.
- Grade II* Listed Watermouth Castle overlooking the harbour, now including a
 theme park and holiday apartments. Originally built in the mid-19th century as a
 country residence for the Bassett family.
- Distinctive double conical designed Landmark Theatre and modern glassfronted properties on the cliff edge contrasting with Ilfracombe's historic seafront, visible from the sea. Damian Hirst's temporary bronze statue Verity today commands the harbour; a key visitor attraction.

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- **Elevated coastal caravan sites** including at Watermouth, Briery Cave, Hele and Lester Point. Behind the SCA, the telecommunications mast near Higher Slade and wind turbines at Mullacott Cross form prominent vertical structures rising above the smooth open hill summits.
- Harbours are hives of activity; the largest harbour on the North Devon coast, Ilfracombe houses a lifeboat station and is a base for sightseeing/ fishing/diving charters and yachting (with its own club); Combe Martin and Watermouth offer sheltered anchorage and a variety of watersports.
- The historic MS Oldenburg, Waverley Paddle Steamer, MV Balmoral and private charters frequently take passengers from Ilfracombe to Lundy. The Waverley continues a Victorian tradition of paddle steamers visiting from Wales and Bristol.
- Away from the busy harbours, the SW Coast Path provides access along the cliff tops for enjoyment of sweeping coastal views. The cliffs are also popular for climbing and coasteering – the latter particularly around Watersmouth.
- Sea kayakers, jet skis and motorboats, sailing yachts, sightseeing, fishing and diving charters as well as commercial fishing vessels create movement and activity on the waters.

Perceptual and aesthetic influences

- A seascape of contrasts; from the bustling harbours and coastal towns of Combe
 Martin and Ilfracombe to sections of undeveloped cliff-tops and secluded, often
 inaccessible coves and beaches.
- Areas of relative tranquillity and remoteness away from development can be broken by sounds of motorcraft on the waters, particularly in the summer months.
- Dynamic landscape and seascape scenes long providing artistic and literary inspiration, including past Ilfracombe residents Henry Williamson and Albert Goodwin. Current artistic connections include Damien Hirst and George Shaw.
- **Wind direction and weather conditions** having a significant bearing on perceptions; northerly gales and storms creating a wild and forboding seascape despite the close proximity of development and 'safety'.
- Profound character change in the east, where the dramatic forms of the heath-clad
 Little and Great Hangmans (SCA 8) create a spectacular western gateway into
 Exmoor National Park in both land and sea views. There is strong intervisibility
 between the Hangmans and the elevated hill summit of Hillsborough Hill within this
 SCA.
- **Sweeping, uninterrupted vistas across the Bristol Channel**, the distinctive form of Worm's Head (Gower) distinguishable on the horizon.
- **Lundy looming mysteriously in western views**, a strong maritime feature in an otherwise empty Atlantic Ocean horizon.
- Masts, wind turbines and caravan parks breaking the smooth downland horizons backing the SCA to the south; strong rural qualities pervade away from such developments.



The special qualities of this seascape that would be most sensitive to change include:

- Dramatic, wild and jagged coastline punctuated by limestone caves and secluded coves; large sections nationally designated for their geodiversity.
- Diverse coastal habitats home to breeding sea bird colonies, and varied marine habitats including valued areas of honeycomb worm reef.
- The historic harbours and Victorian seaside resorts; industrial and seafaring heritage; and associations with ship wrecks and smuggling.
- Working harbour at Ilfracombe with its regionally important fishing fleet and maritime base for visitors exploring the wider seascape, including Lundy.
- Range of recreational activities such as iconic coastal walks, safe bathing, rock pooling, coasteering, kayaking, sailing, and charter boat trips.
- Valued and well-known viewpoints, including Hillsborough, Capstone Point, Watermouth and the SW Coast Path.
- Uninterrupted vistas across the Bristol Channel to the Gower, west to Lundy, and east towards Exmoor and the Little and Great Hangmans.
- The seascape's role as a setting and gateway into the nationally designated landscapes of the North Devon AONB and Exmoor National Park.







Coastal land / marine resource management

- Post-war intensification of farming leading to field enlargement and a spread of intensive farmland backing the cliffs (fragmenting areas of coastal heath and maritime grassland).
- Encroachment of bracken, gorse and young secondary woodland onto remaining areas of open coastal habitats as a result of a long-term decline in grazing and traditional management such as swaling.
- Poor bathing water quality in Combe Martin Bay, including as a result of diffuse pollution from agriculture transported to the sea via the River Umber.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.

Aquaculture and fishing

- Intense period of recreational fishing activity in the summer months, putting some pressure on the resource. The shifting nature of the sand and gravel sediments does, however, mean that activity can be spread over a wider area.
- Uncertainty over the long-term economic viability of the commercial fishing fleet at Ilfracombe Harbour (comprising 10 registered vessels), who are much valued as part of the community, local economy and heritage of the area.
- Unknown outcome of Marine Conservation Zone designation (the Bideford to Foreland Point recommended site is currently under consideration by Defra), including the impacts any future designation might have on fishing activity in the wider area. The rocky foreshore and waters up to 20m depth have been part of a voluntary Marine Conservation Area since 1994 one of the first in the country.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism (continued over the page)

• Modern tourism-related development and land uses including chalets, caravan parks, camp sites, car parks, holiday apartments and hotels in prominent coastal and elevated locations, often visible from the sea.

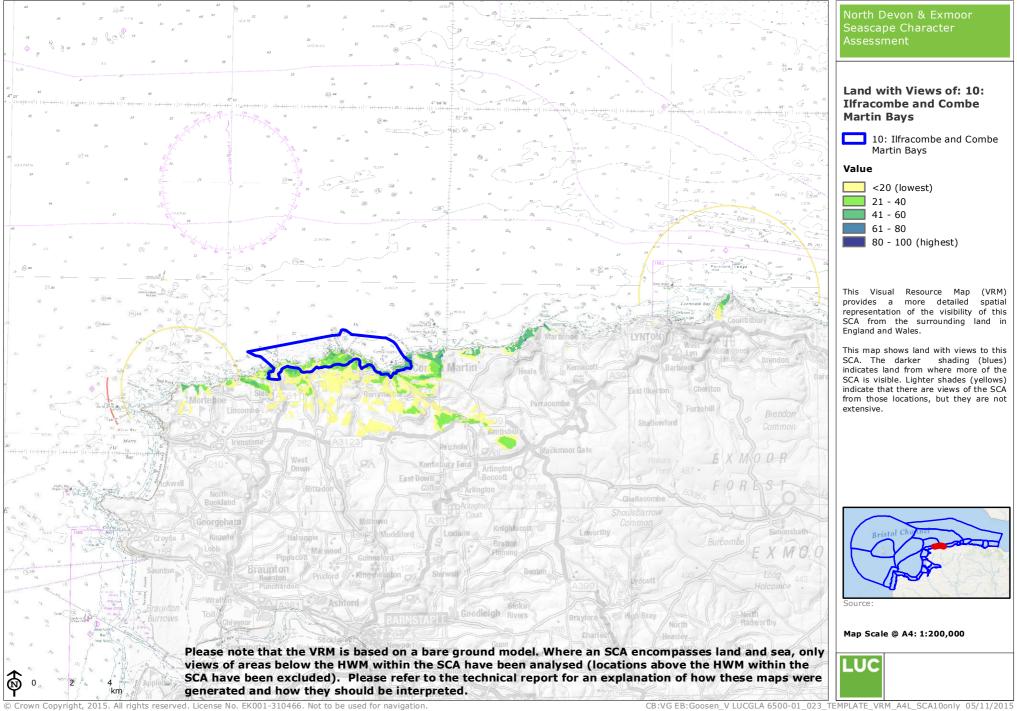
- Popular beaches, including those accessible from caravan/camping sites, can suffer from litter (e.g. Broad Strand Beach).
- Increasing use of the harbours as a base for motorcraft, including jet skis, which introduce noise and human activity into the remote seascapes surrounding the harbours.
- Growing demand for water-based recreation and increased number/size of charter boats raising concerns over wildlife disturbance (particularly sea birds, grey seals and cetaceans). These concerns are being communicated and addressed voluntarily through a Code of Conduct developed and promoted by the North Devon Biosphere Reserve and Landmark Trust (for Lundy). An accreditation scheme for responsible charter companies is also being developed.

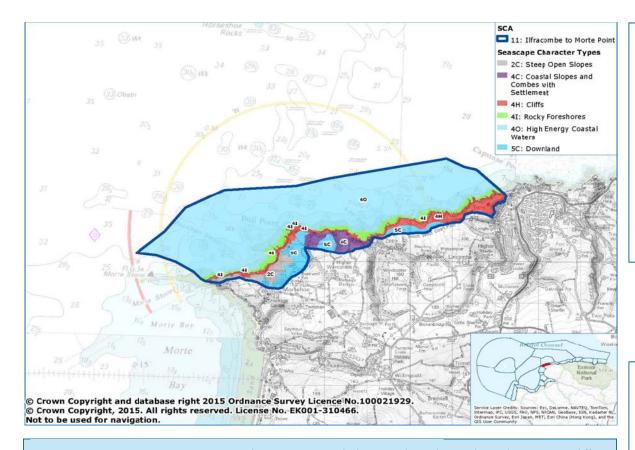
Other development pressures / impacts

- Extensive modern housing development around Ilfracombe prominent in the landscape (with up to 1,400 more houses planned), light spill resulting in the loss of dark night skies. Development and lighting also impacts on landward views from the sea and South Wales.
- Views inland to masts, wind turbines, solar farms and elevated caravan developments interrupting the smooth, rounded profiles of the downland hills and the rural setting these provide to the coast.
- Strong tidal energy resource in the wider area, the North Devon Tidal Zone situated immediately to the east, extending up to 10km offshore (covering the waters within nearby SCAs 3, 4, 5, 6, 7, 8 and 9). Ilfracombe may become the supply port to the zone.
- Ongoing national demand for alternative sources of renewable energy production, including offshore wind. Although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward in the same area which could have an impact on the views and remote qualities associated with this SCA, particularly the area west of Ilfracombe.

Natural processes and climate change

- Coastal squeeze as a result of sea level rise and coastal erosion, with low rates of cliff recession due to the geological resistance of the bedrock. The SCA's rocky foreshore habitats, coves and beaches may narrow or disappear, the latter including as a result of a reduction in sediment supply. The current Shoreline Management Plan policy is to maintain existing defences at Ilfracombe and Combe Martin, but to let the coastline evolve naturally overall.
- Impacts of climate change on characteristic heathland and maritime grassland habitats, with potential for increased growth rates accelerating the spread of scrub and trees into the open coastal landscape, along with an increased prevalence of pests and diseases.





SCTs within the SCA: 2C Steep Open Slopes; 4C Coastal Slopes and Combes with Settlement; 4H Cliffs; 4I Rocky Foreshores; 4O High Energy Coastal Waters; 5C Downland.

A sparsely settled, rugged coastline of steep rocky cliffs, rocky foreshores, distinctive headlands and small rocky coves, punctuated by narrow combes. Bull Point Lighthouse forms a key seascape feature. The notorious smuggling and wrecking activities once rife along the coast can be seen in the names of the coastal features such as Brandy Cove, with several shipwrecks testament to the treacherous waters. The SCA supports a mosaic of coastal and marine habitats, reflected in the SSSI designation at Morte Point and in its identification as a recommended Marine Conservation Zone. The elevated cliffs and plateau provide expansive seaward views towards the Welsh coast and Lundy.

The SCA's coastal area forms part of the North Devon AONB and North Devon Heritage Coast.

Natural / physical influences

- North-facing rugged coastline with a series of distinctive headlands and small rocky coves, punctuated by narrow combes cut by fast-flowing streams and small waterfalls. The wooded Borough Valley meets the sea at Lee.
- Steep rocky cliffs dropping down to rocky foreshores and beaches from the broad plateau of the downland that extends inland from the coast.
- Straddling into SCA 12, Morte Point contains the seascape to the south; a rugged, rocky headland with pronounced upright reefs, both on land and at sea.
- Dramatic geological strata underlain by Upper Devonian rocks, predominantly
 Morte Slates made up of greenish grey to purple slates with sharply angled
 formations.
- Seabed formed of **Devonian and Carboniferous mudstones and sandstones**, overlain by sandy and slightly gravelly marine deposits.
- Waters shelving to a maximum depth of 30m in the west, though to the east waters are shallower, reaching approximately 20m.
- Small beaches and rock pools exposed at low tide, including Rockham beach, Lee Bay, Sandy Cove and Bennett's Mouth, where limpets, sea anemones, and star fish can be found.
- Part of the Bideford to Foreland Point Recommended Marine Conservation
 Zone, comprising a range of intertidal and subtidal habitats including bedrock and
 biogenic reefs supporting a rich variety of marine life, including spawning areas
 for lobster and several fish species.
- Grey seals frequently seen between Morte Point and Rockham, and dolphins and porpoises are often spotted off Bull Point.
- Mosaic of SSSI-designated coastal habitats, including coastal heath, maritime
 grasslands, scrub and lichen communities. The cliffs and foreshore support
 important bird populations, including waders such as oyster catchers, and sea birds
 such as gannets.
- An exposed coastline, battered by north, east and westerly winds and strong currents, almost devoid of trees, with low-growing heathland and maritime grasslands pervading.
- Strong currents, particularly around Morte Point, and areas of turbulence and shoals such as Rockham Shoals.
- **Bull Point Lighthouse** guides vessels navigating off the North Devon Coast. Red sector lights mark the dangers presented by Rockham Shoal and the Morte Stone (SCA 12).

Cultural and social influences (past and present)

- Treacherous waters; a notoriously dangerous wrecking area with submerged 'devil's teeth' rocks extending from Morte Point. The name 'Breakneck Point' aptly refers to another dangerous section of this coast, where a customs officer fell to his death chasing a local smuggler.
- In 1852 alone, five ships went down near the Point. Historic and more recent wrecks provide reef habitats and popular scuba diving destinations. Two wrecks are themselves marked as navigational hazards.
- Associations with historic smuggling activities apparent in the names of coastal features such as Brandy Cove, and buildings such as Smugglers Cottage at Lee. Notorious smuggler Hannibal Richards, originally part of the Cruel Coppinger Gang, was based at Lee.
- The original Bull Point lighthouse, built in 1879 to counter the activities of wreckers rife along this coast, was declared unsafe in 1972. The current lighthouse dates from 1974.
- Other significant historic features include three nationally designated standing stones situated on a prominent coastal hills overlooking Bull Point.
- **Historic lime burning**, with coves used for importing coal and limestone from South Wales, (coal was dumped at "Black Pit"). Former kilns at Lee, Rockham and the Torrs, the latter served by its own limestone quarry.
- Very popular section of the SW Coast Path following close to the cliff edges, with
 extensive areas of open access land owned and managed by the National
 Trust. Torrs was also a popular walking area in Victorian times, with a tea room on
 the top.
- Cliff climbing and coasteering are increasingly popular activities.
- **Small haven at Lee Bay** providing access to the shoreline, its extensive rocky foreshore popular for **rock pooling** and as a launch-point for **kayakers** exploring the coastline. Originally, small open boats would bring visitors to Lee from Ilfracombe.
- Waters defined as a sailing area by the Royal Yacht Association, also visited by fishing charters and crossed by sightseeing cruises from Combe Martin and Ilfracombe, including the MS Oldenburg to and from Lundy.
- Commercial and recreational fishing for species including bass, mackerel pollock and gurnard; the rocky waters also used for lobster and crab potting.

Perceptual and aesthetic influences

- High levels of remoteness and dark night skies much of the shoreline only accessible by boat, with many beaches hidden and only visible from the water.
- Senses overwhelmed by the seascape's maritime character, reinforced by legends of shipwrecks and smuggling. The ghost of William de Tracy is supposedly seen on stormy nights, wailing and cursing, seeking penance for his murder of Thomas Beckett.

- Centuries old connotations of Morte Point with death and danger. Popular belief that it was named from the Latin root "mort" meaning "death", when its actual origin is probably a Saxon word meaning "stumpy", referring to the shape of the headland.
- Rich and varied colours and textures provided by the array of rock formations, the heather, gorse, grasses clinging to the cliff faces and the sheltered wooded combes.
- **Sparse settlement** largely confined to the narrow floors of the combes, such as the village Lee. Conversely, the eastern part of the SCA is visually influenced by the bustling harbour town of Ilfracombe.
- **Bull Point headland and lighthouse** forming a prominent maritime feature particularly from the east, the lighthouse beam sweeping across the waters at night.
- Expansive views afforded out to sea from the elevated cliffs and plateau behind, Lundy highly prominent to the west – its side profile appearing long and thin.
- **South Wales coast also featuring on distant horizons**, including Worms Head, Gower; the beginnings of the more contained Bristol Channel seascape.
- **Container ships and tankers** travelling to/from Avonmouth forming large-scale moving maritime features on the seaward horizon.
- **Dynamic seascape long providing artistic inspiration**, including Albert Goodwin, the 19th century watercolour painter who lived nearby in Ilfracombe.
- Dramatically varied perceptual qualities from wild seas and powerful winds thrashing the desolate cliffs in a winter storm, to a sense of calm on a summer's day; sounds of people enjoying the seascape echoing around the cliffs.







The special qualities of this seascape that would be most sensitive to development-led change include:

- A rugged and varied coastline windswept headlands, rocky cliffs and foreshores, maritime heathland, rock pools and enclosed coves.
- Range of coastal and water-based activities, including sightseeing cruises and fishing charters, kayaking, walking and rockpooling.
- Dramatic legends of shipwrecking, smuggling and past industry former lime kilns forming valued heritage features.
- Landmarks visible from long distances out to sea, including Bull Point Lighthouse and the distinctive landform profile of Morte Point.
- The wild, exposed and remote qualities experienced at the cliff tops, contrasting with the calm and tranquil coves and sheltered beaches.
- Long views across the Bristol Channel including to the Gower, and west to the distinctive long, thin profile of Lundy.







Coastal land / marine resource management

- Post-war intensification of farming leading to field enlargement and a spread of intensive farmland backing the cliffs (fragmenting areas of coastal heath and maritime grassland).
- Encroachment of bracken and gorse onto areas of open coastal habitats as a result of a long-term decline in grazing and traditional management such as swaling. Grazing by traditional livestock breeds such as Herdwick sheep is taking place on areas of National Trust-owned coastal heathland.
- Decline in traditional woodland management affecting the coastal woodlands at Lee, including a spread of rhododendron and Japanese knotweed.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.

Aquaculture and fishing

- Uncertainty over the long-term economic viability of the nearby commercial fishing fleet at Ilfracombe Harbour (comprising 10 registered vessels), who are much valued as part of the community, local economy and heritage of the area.
- Unknown outcome of Marine Conservation Zone designation (the Bideford to Foreland Point recommended site is currently under consideration by Defra), including the impacts any future designation might have on fishing activity in the wider area. The rocky foreshore and waters up to 20m depth have been part of a voluntary Marine Conservation Area since 1994 one of the first in the country.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism (continued over the page)

- Modern tourism-related development and land uses including caravan parks and camp sites visible in views inland from the undeveloped coastal edge, including close to the historic settlement of Mortehoe.
- Increasing use of the nearby harbours at Ilfracombe, Combe Martin and Watermouth (SCA 10) as a base for motorcraft, including jet skis a new watersports centre is proposed at Larkstone (Ilfracombe). Users travelling by motorcraft into the waters of this SCA can impact on its characteristic levels of tranquillity and remoteness.

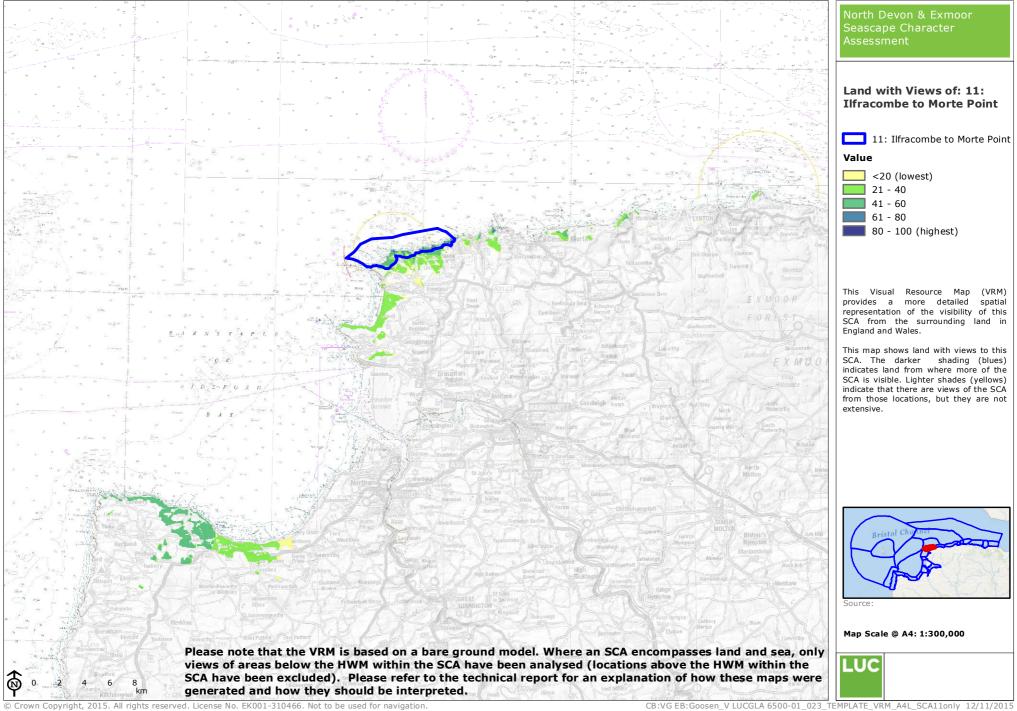
- Growing demand for water-based recreation and increased number/size of charter boats raising concerns over wildlife disturbance (particularly sea birds, grey seals off Morte Point and cetaceans). These concerns are being communicated and addressed voluntarily through a Code of Conduct developed and promoted by the North Devon Biosphere Reserve and Landmark Trust (for Lundy). An accreditation scheme for responsible charter companies is also being developed.
- Increasing levels of coastal erosion and storm damage as a result of climate change/sea level rise seeing some sections of SW Coast Path closed off, e.g. at Rockham Bay.

Other development pressures / impacts

- Light spill from Ilfracombe resulting in a reduction in dark night skies in the east of the SCA. Development and lighting also impacts on the views and remote qualities of nearby National Trust land at Torrs Park.
- Views inland to prominent vertical structures such as the wind turbines at Mullacott Cross and telecommunications mast at Higher Slade; interrupting the rural setting provided by the rounded downland ridges behind the SCA.
- Strong tidal energy resource in the wider area, the North Devon Tidal Zone situated to the east, extending up to 10km offshore (covering the waters within SCAs 3, 4, 5, 6, 7, 8 and 9). Structures relating to any developments here may be visible in views from this SCA.
- Ongoing national demand for alternative sources of renewable energy production, including offshore wind. Although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward in the same area which would have a significant impact on the important views and remote qualities associated with this SCA.

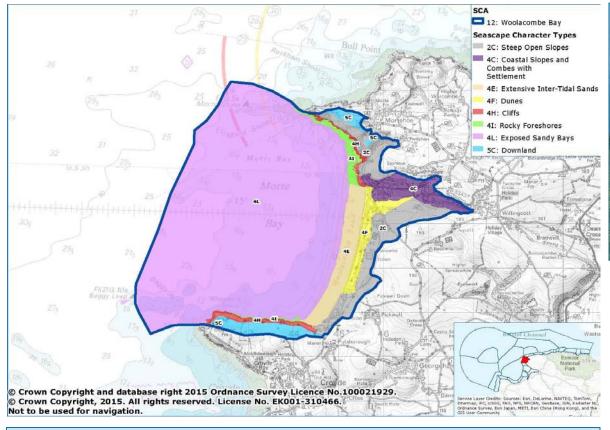
Natural processes and climate change

- Coastal squeeze as a result of sea level rise and coastal erosion, with low rates of cliff recession due to the geological resistance of the bedrock. The SCA's coastal heritage features, rocky foreshore habitats, coves and beaches may erode or disappear, the latter including as a result of a reduction in sediment supply. The current Shoreline Management Plan policy is to let the coastline evolve naturally some existing defences retained into the long term at discrete places such as Lee.
- Impacts of climate change on characteristic heathland and maritime grassland habitats, with potential for increased growth rates accelerating the spread of scrub and trees into the open coastal landscape, along with an increased prevalence of pests and diseases.
- Change in woodland / tree species composition impacting on the characteristic coastal woodlands at Lee, as new pests/diseases spread (particularly *Phytopthora* pathogens) and species intolerant of water level extremes die back.



SCA 12: Woolacombe Bay

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)



SCTs within the SCA: 2C Steep Open Slopes; 4C Coastal Slopes and Combes with Settlement; 4E Extensive Intertidal Sands; 4F Dunes; 4H Cliffs; 4I Rocky Foreshores; 4L Exposed Sandy Bays; 5C Downland.

Curving sandy bay enclosed by an arc of steep cliffs and the rising hinterland of Woolacombe Down, this SCA is framed by the prominent headlands of Morte Point and Baggy Point rising out of the sea. The coastline includes a mosaic of nationally designated habitats, including maritime grassland and heathland; with high energy intertidal rocks supporting important infaunal communities. The treacherous waters around Morte Point are a notoriously dangerous wrecking area; the coast associated with a rich history of smuggling and lawless wrecking by 'Mortemen'. The SCA affords panoramic views, including to Lundy and the Gower in South Wales.

The coastal areas of the SCA forms part of the North Devon AONB and the North Devon Heritage Coast.



Natural / physical influences

- Curving sandy bay framed by imposing, headlands of Morte Point and Baggy Point rising abruptly from sea level (to 137m AOD and 100m AOD respectively) and channelling views out to sea.
- Bay enclosed by an arc of steep cliffs and the rising hinterland of Woolacombe Down, topped by broad rounded slopes of open downland, creating a smooth, unbroken skyline.
- Coastline formed of Upper Devonian rocks, predominantly the distinctive greenishgrey to purple jagged upright rocks of Morte Slates at Morte Point, with some sandstone bands and calcareous nodules and sandstones; cross-bedded and ripple marked.
- 3 mile-long expanse of swash-aligned sandy beach, Putsborough Sand/ Woolacombe Sand, with outcrops of bedrock extending away from the headlands, including Morte Slate exposures at Black Rock, and SSSI-designated exposures at Barricane Beach and Mill Rock.
- The exposure at Barricane Beach, locally known as a rare shell beach, contains
 extensive fossils which have been used to demonstrate conclusively that Morte
 slates are of Upper Devonian origin.
- Beaches backed by the steeply rising, narrow dune system of Woolacombe
 Warren, formed by the accumulation of sediment against the rising ground at the
 back of the bay.
- With a westerly aspect, the beaches are largely sheltered, especially at Putsborough from the strong south-westerly winds from the Atlantic by Baggy Point. Exposure increases markedly beyond the Point.
- Bay gently shelving to a general water depth of 20m; the seabed formed of Devonian and Carboniferous mudstones and sandstones, overlain by sandy and slightly gravelly marine deposits.
- Distinctive coastal character, a strong transition from the rolling downland to the jagged, rocky ridgeline extending to Morte Point and along the seabed to Morte Rock.
- Mosaic of nationally designated coastal habitats, the rugged cliffs, vegetated
 with maritime grassland and heathland designated as SSSI. The rocks and
 mineral-rich soils support important lichen communities and the cliffs and dunes
 provide important habitat for seabirds.
- Forms part of the Bideford to Foreland Point Recommended Marine Conservation Zone the high energy intertidal rocks supporting important infaunal communities. The rare pink sea fan (Eunicella verrucosa), a soft coral, can be found within the subtidal zone.
- Relatively low tidal streams in the bay, increasing around the headlands, with dangerous overfalls spilling over the submerged rocks.

Cultural and social influences (past and present)

- Treacherous waters around Morte Point; a notoriously dangerous wrecking area, with 'devil's teeth' rocks extending out under water from the headland. A coastguard lookout existed on Morte Point until the 1960s. Bull Point lighthouse (SCA 11) today marks safe passage.
- Several wreck sites clustered off the headlands, including the famous HMS
 Weazle, which foundered in 1799 with the loss of 100 local crew. Off Baggy Point,
 the Ceres, sunk in 1936, is classified as a dangerous wreck.
- Rich history of smuggling and 'lawless' wrecking by 'Mortemen' who would use lanterns on stormy nights to lure passing vessels onto the rocks and plunder their cargo.
- **Lime burning was an important industry**, with former kilns at Vention, originally called New Invention, and Woolacombe, which was built by the Chichester family in the 18th century.
- Strong wartime associations along with the wider coastline. Lookout and
 arrow above Putsborough Sand was used by WWII aircraft to align bombing
 practices at Morte Stone. A downed Wellington Bomber from 1943 is found on the
 seabed near the stone and a chain of dummy World War II pillboxes along Baggy
 Point (straddling into SCA 17).
- Local geology is reflected in the vernacular buildings, including the historic core of Mortehoe and the distinctive stone-faced banks, such as on Morte Point.
- Woolacombe was the main landing beach D-Day practice landings due to its similarity to the Normandy coast; the US Assault Training Centre based in Woolacombe Bay Hotel. The dunes behind the beach include early 20th century golf course remains from their previous use.
- **Long associations with tourism**, displayed in the Victorian/Edwardian linear expansion of Woolacombe as a seaside resort.
- Remains a popular recreational area, crossed by the SW Coast Path and Tarka Trail, following the cliff edges. Sea cliff climbing and coasteering becoming increasingly popular, with paragliding also taking place off Woolacombe Downs and Baggy Point.
- Beaches heavily used in the summer months, with events such as the National Sand Castle Competition. Beaches are popular for surfing throughout the year.
- Large sections owned and managed by the National Trust, including the dunes at Woolacombe and Baggy Point providing further access opportunities. Morte Point was the first North Devon coastal property acquired by the Trust, in 1909.
- Water-based activities in the sheltered bay including kite-flying, and yachting; wrecks and reefs are destinations for scuba diving.
- Morte Point popular for recreational angling, including spinning for bass and mackerel; whilst beach-based fishing for ray and conger takes place after dark, once the beaches empty. Lobster and crab potting takes place in the rocky waters.

- Headlands proving enclosure, a sense of perspective against the open sea and retaining high levels of tranquillity with a wild and exposed character.
- Centuries old connotations of Morte Point with death and danger. Popular belief that it was named from the Latin root "mort" meaning "death", when its actual origin is probably a Saxon word meaning "stumpy", referring to the shape of the headland.
- The headland, with its pronounced onshore and offshore vertical reefs, is dramatically captured by many photographers and artists, including the 19th century watercolour painter Albert Goodwin.
- **Rich and varied colours and textures** of heather, gorse, grasses, wild flowers in the summer; exposed rock and sand, and the wide expanse of the sea.
- Views north-east into the Bay from the sea influenced by settlement and caravan parks stretching up the hillside. Fullabrook wind turbines form moving structures on south-eastern horizons.
- The elevated linear historic settlement of Mortehoe, including its church tower, peeps through gaps in the cliff line when travelling towards Morte Point.
- The sandy expanse of the sands and dunes, along with the dramatic cliffs with folding strata, are distinctive in landward views – the golden beach visible from Lundy (SCA 15).
- Bull Point Lighthouse forms a distinct maritime feature to the north in views from the coastal waters and Morte Point, its beam sweeping across the northern extents of the waters at night.
- Panoramic views across the bay from the headlands of Morte Point and Baggy Point, as well as from the distinctive coastal Mortehoe Cemetery.
- **Far-reaching views to Lundy** on the horizon. The recognisable profile of Worm's Head (Gower) features to the north; the uplands of Dartmoor to the south.
- Container ships and tankers travelling to/from Avonmouth form frequent maritime features on the seaward horizon.

The special qualities of this seascape that would be most sensitive to development-led change include:

- Unique coastal formations long (Baggy Point) and short (Morte) headlands strongly recognisable in views from across the bay.
- Rich variety of marine and coastal wildlife including seals, birds, fish, rare corals and underwater creatures.
- Historic legends of ship wrecks, the 'Mortemen' wreckers and smuggling.
- Long sandy beach and sweeping bay a highly popular area for a range of coastal and water-based activities; nationally renowned for surfing. The SCA's golden sands are visible from Lundy.
- High levels of naturalness and tranquillity despite its popularity as a visitor/recreational destination; a constantly changing, dynamic seascape.
- An expanse of enclosed clear water, with Lundy featuring in the centre.







Coastal land / marine resource management

- Scrub encroachment on areas of open heathland/maritime grassland due to a long-term decline in grazing levels addressed through Environmental Stewardship agreements. The National Trust is currently using a traditional flock of Hebridean sheep to graze habitats on Baggy Point.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Potential increases in shipping to/from the Bristol Channel leading to pollution and an increase in waste/litter washed in from the bay, as well as a greater risk of major pollution incidences.
- Post-war intensification of agriculture spurred on by CAP-related subsidies in the 1970s, leading to field enlargement and a spread of intensive arable cultivation along some downland farmland backing the cliffs.

Aquaculture and fishing

- Unknown outcome of Marine Conservation Zone designation (the Bideford to Foreland Point recommended site is currently under consideration by Defra), including the impacts any future designation might have on fishing activity in the wider area
- Uncertainty over the long-term economic viability of the commercial fishermen and potters who use these waters, including from Ilfracombe, Appledore and Bideford, who are much valued as part of the community, local economy and heritage of the area.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism

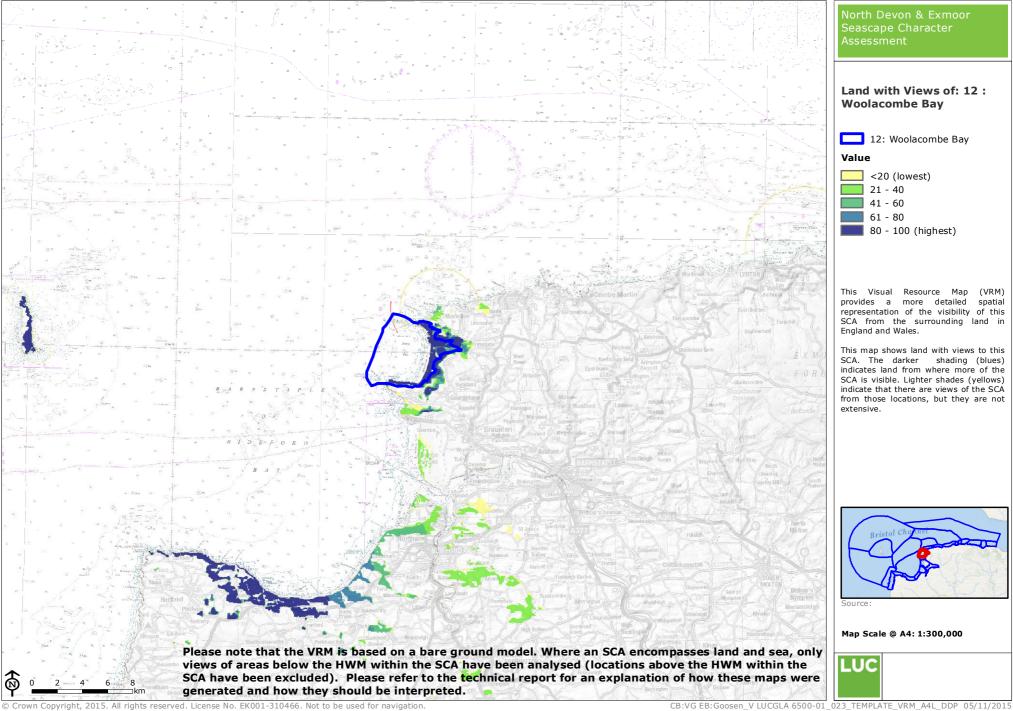
- Demand for increasing numbers of holiday parks, hotels, caravan/camping sites and related infrastructure, affecting the wild character of the seascape and intruding into views from across Bideford Bay particularly as development extends into prominent, elevated locations (e.g. Woolacombe Bay Holiday Park). This also impacts on levels of light pollution.
- Increasing popularity of the seascape for surfing and other watersports, binging more people and traffic to the area, also leading to a reduction in the tranquil and wild qualities of the seascape and potential for wildlife disturbance (including grey seals which haul out at Morte Point). These concerns are being communicated and addressed voluntarily through a Code of Conduct developed and promoted by the North Devon Biosphere Reserve
- Limited resources to fund improved infrastructure / public transport and to better manage public access, putting pressure on the fabric of valued seascape features such as the dunes, and increasing levels of erosion on popular walking routes (including the SW Coast Path).

Other development pressures / impacts

- Increasing demand for larger residential development, extending beyond existing settlement boundaries or replacing existing buildings with a scale and architectural style that is not always sympathetic to the setting and character of the area.
- Wind turbine developments and overhead powerlines on the elevated downland rising up behind the coast, particularly Fullabrook wind farm to the south-east; prominent in open views from the coastal headlands and from out to sea, including as far as Lundy (SCA 15).
- Ongoing national demand for alternative sources of renewable energy production, including offshore wind and tidal energy (stream devices and tidal lagoons). Although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward which could impact on the special qualities of this SCA, including its open seaward views with Lundy as a key focal point.

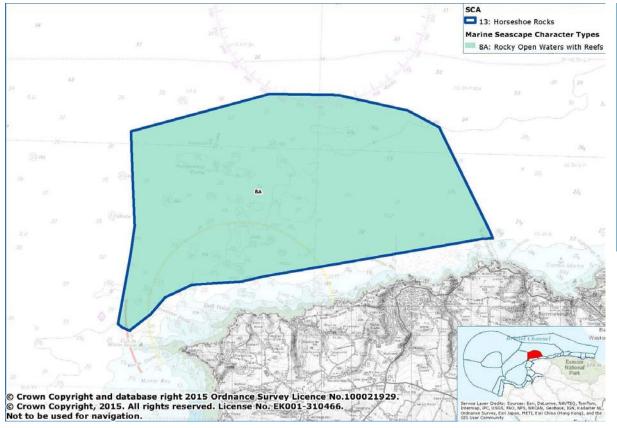
Natural processes and climate change

- Impacts of climate change, including sea level rise and higher storm frequency, leading to the natural retreat of the shoreline onto the rising land at the back of the bay, resulting in an overall reduction in the width of Woolacombe Warren. The current Shoreline Management Plan policy is to allow natural processes to take place along this coast.
- The retreating coastline also poses implications for heritage assets, coastal properties and visitor facilities which may be lost or gradually denuded by the changing environment, particularly at Putsborough where properties are protected by rock armour. This could also impact on sections of the South West Coast Path which trace low-lying areas of the coast including the dunes.
- Impacts of climate change on characteristic open maritime grassland and coastal heathland habitats, with potentially increased growth rates accelerating the spread of scrub, as well as an increased prevalence of pests and diseases.



SCA 13: Horseshoe Rocks

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)





SCTs within the SCA: 8A Rocky Open Waters with Reefs.

Area of open water extending from 1km to 7km offshore between Morte Point in the west and Ilfracombe in the east, to a depth of 38m. These are treacherous waters, with extensive shoals, sand banks, roughs and strong tidal streams and currents. A lighted buoy moored on its north side of the prominent rock shoal of Horseshoe Rocks directs vessels to the north and the area is generally avoided by vessels. Views to the imposing cliffs rising at the coast, including Morte Point and Bull Point (with its lighthouse) and long views to Lundy, are characteristic.



Natural / physical influences

- Area of sea extending from 1km to 7km offshore between Morte Point in the
 west and Ilfracombe in the east, ranging in depth between 20 and 38 metres below
 chart datum.
- Seascape marks the transition between the open sea stretching towards the Atlantic to the west, and the enclosed Bristol Channel to the east.
- Seabed underlain by **Devonian and Carboniferous mudstones and sandstones**, topped by sand and gravel marine deposits, with gravel predominating in the north.
- Prominent rocky shoal of Horseshoe Rocks, a large linear dolerite dyke which
 has intruded into the surrounding Devonian strata at a depth of about 12 metres,
 marked by a lighted buoy moored on its north side directing vessels to safe
 passage.
- Seabed comprises mostly shallow aphotic rock or biogeneic reefs, with an
 eastern area of coarse sediment and photic rock occurring at Horseshoe Rocks.
- Extensive shoals, sand banks and roughs combine to produce treacherous navigational conditions.
- Robust faunal communities found on the wave-exposed, tide-swept circalittoral bedrock around Horseshoe Rocks.
- Larger aquatic mammals, including **harbour porpoises**, **grey seals and dolphins** can be frequently sighted in the waters. Bull Point (SCA 11) is a popular wildlife spotting site overlooking this seascape.

Cultural and social influences (past and present)

- **Several wrecks**, mostly unidentified, found dispersed across the seabed, including *The Larchwood*, sank in 1916 after colliding with another vessel to the west of Horseshoe Rocks and a dredger, *Stan Woolaway*.
- The wrecks attract occasional scuba divers and fishing charter boats.
- SCA used for very low-intensity commercial netting and potting for lobster and crab.
- Large container ships and tankers frequently seen to the north, travelling to/from the main Bristol Channel ports (including Avonmouth) and forming large-scale moving maritime features.
- Royal Yacht Association sailing routes crossing the peripheries of the SCA, directed north of Horseshoe Rocks to avoid the turbulent waters between the coast and the shoal.

Sightseeing cruises also pass around its peripheries and to the north of the area, including the MS Oldenburg and the historic Waverley paddle steamer and MV Balmoral, taking passengers between Ilfracombe and Lundy.

- High levels of wildness, remoteness and dark night skies, a feeling of being
 at the mercy of the elements despite the proximity of the North Devon coast and
 maritime transport passing nearby.
- Far-reaching views to the Welsh coast to the north, including the distinctive profile of Worms Head (Gower) and the developed Swansea Bay – with its associated twinkling night-time lighting.
- Imposing cliffs and distinctive rugged headlands of the North Devon coast providing a setting to the south, including the profiles of Morte Point and Bull Point and the elevated rounded downland behind.
- Lundy's distinctive long, low profile characterises the westerly horizon; the only feature in a vast empty sea.
- Day and night-time landmarks formed by **Bull Point lighthouse** to the south, and the more distant night-time flash of **Lundy North Light** to the west. In combination with the lit buoy marking Horseshoe Rocks, these emphasise a strong and **hazardous maritime character**.

The special qualities of this seascape that would be most sensitive to development-led change include:

- A rugged sea with strong currents and associations with ship wrecks now destinations for divers and fishermen.
- A transitional seascape from the open Atlantic to the west to the enclosed Bristol Channel to the east.
- Important fishing grounds, supporting the traditional economies and heritage of North Devon ports and harbours.
- Excellent opportunities for seabird and cetacean spotting, particularly harbour porpoises.
- The seascape's wildness, remoteness and dark night skies.
- Uninterrupted views to Lundy, set against its open ocean backdrop; with nearshore views defined by the dramatic North Devon AONB coastline including Bull Point lighthouse.
- Extensive and uninterrupted views towards the South Wales coast, including the Gower peninsula.







Marine resource management

- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities, offshore development, and climate change).
- Potential increases in shipping in the wider Bristol Channel leading to pollution and an increase in waste/litter washed up on the surrounding coastlines, as well as a greater risk of major pollution incidences.
- Tighter fishing restrictions in other parts of the Bristol Channel could lead to greater pressures on the fish stocks found within this SCA.

Aquaculture and fishing

• Insecure economic viability for the commercial fishing fleets using these waters, who are much valued as part of the community, local economy and heritage of the wider area.

Access, recreation and tourism

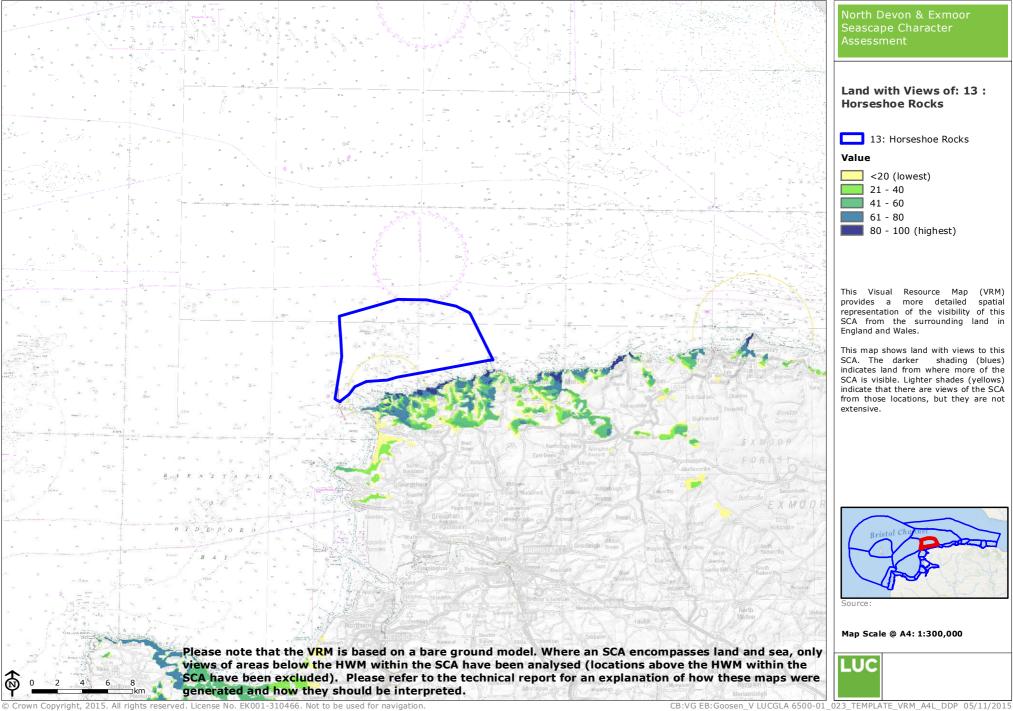
- Increase in the number, size and frequency of maritime transport passing through or close to these waters, including charter trips and cruises to/from Ilfracombe and Lundy, potentially impacting on the seascape's remote qualities.
- Tranquillity within the southern and eastern parts of the area potentially affected by the sounds and movements of recreational jet skis and motor boats passing through the coastal waters from the nearby harbours at Ilfracombe, Combe Martin and Watermouth.

Other development pressures / impacts

- Increased future demand for aggregates extraction potentially leading to sites within this SCA being explored for dredging (currently none of the SCA is licenced for this activity).
- Ongoing national demand for alternative sources of renewable energy production, including offshore wind and tidal energy. Although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward which could impact on the remote character of this seascape and its unbroken ocean views to Lundy. The strong tidal streams within this SCA may lead to interest from developers in future.
- Any new coastal developments, including in South Wales, could be prominent in the open, expansive views offered from this SCA.

Natural processes and climate change

• Increased frequency of storm surges and sea level rise as a result of climate change, accelerating the shifting nature of the sand/gravel banks within the SCA; disrupting sediment flow/load within the waters; and putting coastal communities at greater risk of coastal flooding, erosion and storm damage.



SCA 14: Outer Bideford Bay

14: Outer Bideford Bay Marine Seascape Character Types 8B: Coarse Open Waters © Crown Copyright and database right 2015 Ordnance Survey Licence No.100021929 © Crown Copyright, 2015. All rights reserved. License No. EK001-310466. Not to be used for navigation.

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SCTs within the SCA: 8B Coarse Open Waters.

The SCA comprises the outer reaches of Bideford Bay within the Bristol Channel, with closest land being Morte Point on the mainland, and Lundy to the west. Characterised by a rugrose seabed, including an area of biodiverse reef known as Morte Platform, the SCA has a high benthic species and biotope diversity. An important fishing ground and part of the Bristol Channel shipping routes, the seascape's rich maritime heritage is evidenced by a large number of ship wrecks. Panoramic views are afforded along the Bideford Bay coast, to Lundy to the west and to South Wales to the north.

All of the mainland coast closest to this SCA is within the North Devon AONB and North Devon Heritage Coast. Lundy is also defined as Heritage Coast.



Natural / physical influences

- **The outer reaches of Bideford Bay** within the Bristol Channel, the nearest mainland point being just under two kilometres away at Morte Point with Lundy located some eight kilometres from the SCA's western point.
- The depth of the area ranges between 20m and 50m below chart datum.
- The seabed underlain by Devonian and Carboniferous mudstones and sandstones, topped by an assemblage of coarse sediments, stones, sand ridges and mud troughs.
- The rugrose and varied nature of the seabed gives rise to high bethinic species and biotope diversity: biogenic reef, polychaete rich communities and tide swept channels are found in this area.
- Recommended Marine Conservation Zone at Morte Platform, home to populations of Ross worm (*Sabellaria spinulosa*) along with barnacle species. The epifauna found reflects high levels of sand scour and tidal energy.
- **Strong tidal streams and currents** parts of the waters are generally relatively quiet, with main shipping directed to the north of Lundy.
- Feeding seabirds including diving shearwaters and gannets creating naturalistic movement within the seascape.
- Aquatic mammals, including harbour porpoises, grey seals and dolphins (and occasionally orca) can often be sighted in the waters.

Cultural and social influences (past and present)

- Long history of maritime trade via the Bristol Channel and to the American colonies in the 16th, 17th and 18th centuries, including the timber trade between Bideford and Newfoundland.
- Large number of wrecks from various periods of history and various
 origins dispersed across the seabed, attracting recreational divers. These include
 well known wrecks as well as some recent discoveries. A wreck known locally as
 'The Lump' is popular for crab/lobster potting.
- **Wrecks include** the merchant sailing vessel *The Queen Victoria*, sunk by German submarine while travelling from Swansea to Morlaix; the Spanish cargo ship *Monte Gurugu*, downed after an engine explosion during a gale (some crew rescued by Ilfracombe lifeboat); and a more recent French trawler *Sarla*, lost in 1978.
- SCA used for low-intensity commercial potting (mostly for lobster) and netting, as well as an important trawling ground for the North Devon fleet, particularly targeting plaice and ray. Continental trawlers also use the waters.
- Recreational angling charters frequently spotted, particularly in the summer months – including trips from Ilfracombe, Appledore and Bideford.

- Occasional large cargo ships moving through to the main Bristol Channel shipping lanes, including car transportation ships to/from Avonmouth.
- Waters crossed by several heavily used Royal Yacht Association sailing routes
 primarily between Lundy, Swansea and the inner Bristol Channel.
- **Sightseeing cruises** passing through the waters, including the *MS Oldenburg* and the historic *Waverley* paddle steamer and *MV Balmoral*, taking passengers between Ilfracombe, Bideford and Lundy.

- **Strong qualities of tranquillity** on calm days, with **wildness and ferocity** when violent gales pick up, sweeping dramatically through the waters (especially treacherous when wind direction opposes the strong tides).
- Intermittent bursts of human activity including slow-moving trawlers and large-scale container trips reinforcing the long-standing transportation role of the SCA, and its pervading maritime character.
- Setting and sense of place provided by the sweeping form of the inner Bideford Bay (SCA 23), framed by the dramatic and highly varied North Devon AONB coast from western Exmoor right around to Hartland Point.
- Discernible landmarks including Morte and Baggy Points, the sandy beaches and dunes at Woolacombe, Croyde and Saunton, and the Hartland peninsula – the lighthouses at Bull and Hartland Points providing orientation both day and night.
- Lundy's distinctive long, low profile forming a characterful feature in the west (including its old lighthouse, church tower and two active lighthouses) beyond which is the open Atlantic ocean. Far-reaching views also afforded to the Welsh coast (Gower AONB and Pembrokeshire Coast National Park).
- **Developed coast and hinterland around the Taw/Torridge estuary** visible in distant views during clear conditions, as are the white turbines of Fullabrook.

The special qualities of this seascape that would be most sensitive to development-led change include:

- 'Middle of nowhere, middle of everywhere' –forming an open marine setting and key element of views from west Exmoor to Hartland Point.
- Important fishing grounds, supporting the traditional economies and heritage of North Devon ports and harbours.
- Excellent opportunities for seabird and cetacean spotting, including diving gannets, shearwaters and dolphins.
- Ships and trawlers passing, emphasising a long-standing maritime heritage also evidenced by its large numbers of ship wrecks.
- A 'pathway to Lundy'; westerly views defined by the island with its open Atlantic backdrop.
- Far-reaching views across the full sweep of the Bideford Bay AONB coast, and north to the Gower and Pembrokeshire coasts. Renowned for its sunsets.







Marine resource management

- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities, offshore development, and climate change).
- Potential increases in shipping in the wider Bristol Channel leading to pollution and an increase in waste/litter washed up on the surrounding coastlines, as well as a greater risk of major pollution incidences.
- Tighter fishing restrictions in other parts of the Bristol Channel could lead to greater pressures on the fish stocks found within this SCA.

Aquaculture and fishing

- Uncertainty over the status of Recommended Marine Conservation Zone designation for Morte Platform (at the time of writing it is not known if the
 recommended site will be put forward for designation) and possible management measures that could have implications for shipping and fishing
 activities.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.
- Insecure economic viability for the commercial fishing fleets using these waters, who are much valued as part of the community, local economy and heritage of the wider area.

Access, recreation and tourism

• Increase in the number, size and frequency of maritime transport passing through or close to these waters, including charter trips and cruises to/from Ilfracombe, Appledore, Bideford and Lundy, potentially impacting on the seascape's remote qualities.

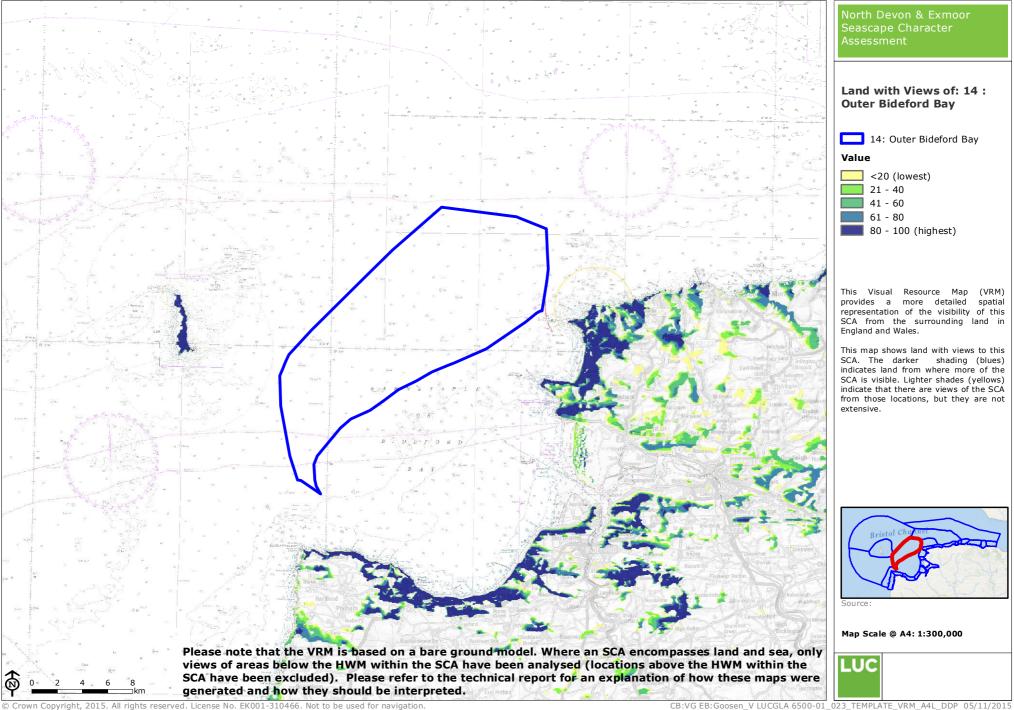
Other development pressures / impacts (continued over the page)

- Any new coastal developments, including in South Wales, could be prominent in the open, expansive views offered from this SCA. Development along the North Devon coast and its elevated hill summits already features in views from this seascape, including Fullabrook wind farm.
- Increased future demand for aggregates extraction potentially leading to sites within this SCA being explored for dredging (currently none of the SCA is licenced for this activity).

• Ongoing national demand for alternative sources of renewable energy production, including offshore wind and tidal energy. Although the Atlantic Array proposal did not proceed, it would have been located in the northern tip of the SCA owing to the optimum wind resources found here. Due to this technical potential, offshore wind energy schemes may still come forward which could impact on the special qualities of this seascape and its unbroken ocean views to Lundy. The strong tidal streams within this SCA may lead to interest from developers in future.

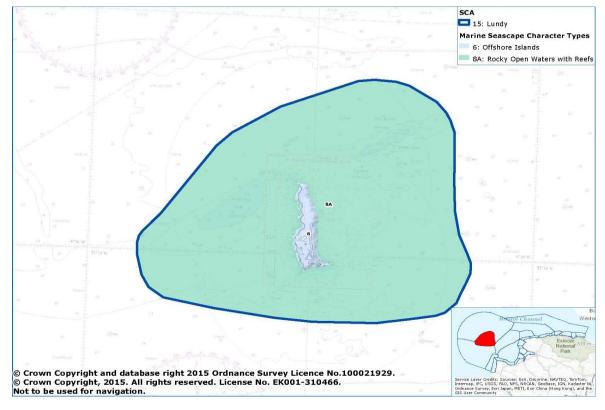
Natural processes and climate change

• Increased frequency of storm surges and sea level rise as a result of climate change, accelerating the shifting nature of the coarse sediments found within the SCA; disrupting sediment flow/load within the waters; and putting coastal communities at greater risk of coastal flooding, erosion and storm damage.



SCA 15: Lundy

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)





SCTs within the SCA: 6 Offshore Islands; 8A Rocky Open Waters with Reefs.

Lundy is a flat-topped island located within the Bristol Channel between the North Devon coast and the Gower and Pembrokeshire coasts in Wales and forms an important focal point in views from these coasts and within the channel. Spectacular cliffs define its coasts edge, and to the west it is battered by waves and winds from the Atlantic. It is an area particularly rich in marine habitats and archaeological remains and is a highly popular destination for visitors who come for a range of experiences and recreational activities. It is a place valued and studied by many with rare qualities of peace and tranquillity.

Lundy is defined as a Heritage Coast.



Natural / physical influences

- A flat-topped island (the largest in the Bristol Channel) formed primarily of Tertiary granite, with Devonian slates revealed along the south-east peninsula. Intrusions by vertical dykes reveal the island's volcanic past. Small streams cascade down the cliffs.
- Spectacular cliffs reaching over 100 metres; the west coast battered by the
 waves and winds of the Atlantic resulting in a rugged, exposed coastline with
 features including the Devil's Limekiln sea cave. More sheltered eastern side, with
 vegetated slopes and secluded rocky coves.
- Surrounded by strong tidal races and overfalls associated with granite/slate reefs extending 1km offshore, rocks and sand banks at East Bank, Stanley Bank and North West Bank; presenting notorious hazards to navigation.
- Diverse complex of marine habitats in a small area; circalittoral rock and biogenetic reefs, coarse sediments and dynamic banks of sand sediment supporting a varied marine life, designated as Marine Conservation Zone and marine SAC¹³.
- Rich marine plants and animals; many rare species of seaweed, anemones, sea squirts and bryzoans, soft coral, sea fan, erect branching sponges and all five British species of cup coral. Home to a colony of 120 grey seals as well as visiting basking sharks, sunfish, dolphins, porpoises, pilot and minke whales and orca.
- Range of commercially and recreationally important fish and shellfish, including species of crab, lobster, prawn, and crawfish; fish such as wrasse, pollock and dogfish; and molluscs including cuttlefish, limpets, scallops and whelks.
- Nationally important cliff-top habitats (most of the island is SSSI) including heath and maritime grasslands with unique flora and fauna, including the endemic Lundy cabbage.
- Known for its seasonal colonies of seabirds, including Manx shearwaters, guillemots, razorbills, shags, gulls and the emblematic puffin (the Norse translation of Lundy=Puffin Island). A new breeding population of storm petrels has become established; previously confined in the region to the Isles of Scilly.

Cultural and social influences (past and present)

- High concentrations of archaeological remains including over forty Scheduled Monuments, including Bronze Age burial mounds and an early Christian cemetery at Beacon Hill with four inscribed 6th century standing stones.
- 13th century Marisco Castle, built to try to establish the rule of law on the island.
 Named after island legend William de Marisco, who fled to the island to become a

- 'virtual king' after being linked to attempts on the real King Henry III's life. He was later captured by Henry's army and hung, drawn and quartered for treason.
- Another legendary Lundy resident, Thomas Bushell, held the island as a fortified
 outpost for King Charles I during the English Civil War, rebuilding Marisco Castle
 and garrisoning the island at his own expense. Bushell had connections with the
 silver mining industry at Combe Martin.
- Lundy's chequered past also includes its role as a base for marauders (including
 allegedly the Barbary Pirates), a retreat for disgraced nobility and the centre of
 an ingenious tobacco smuggling operation. A lawless period of ownership
 under Thomas Benson MP saw the island used for housing convicts whom he was
 tasked with deporting.
- Range of other historical relics across the island including 19th century quarries and gun emplacements. Historic navigational features including the landmark early 19th century lighthouse ('Old Light') and Tibbett's Hill lookout; today nighttime navigation is provided by two powerful lights at either end of the island.
- Over 200 ships lost to the island's turbulent seas, ten wrecks are recognised dive sites. These include the *Iona II* protected wreck; a paddle steamer lost in 1864 on its way to America to begin its new occupation as a Confederate blockaderunner during the American Civil War. Regular dive surveys monitor the condition of the wrecks.
- Military associations including the wreck of the Royal Navy battleship HMS
 Montagu, which ran aground near Shutter Rock in heavy fog in 1906. Strenuous
 salvage efforts failed; the ship sold for scrap at the scene but now another popular
 dive site, complete with armour plate and shells. Two WWII Heinkel bombers
 crashed into the island in 1941, with wreckage still visible.
- After apparently being won by two gentlemen in a card game in the 1800s, Lundy passed through various hands before a successful fundraising campaign led to National Trust ownership in 1969, leased to the conservation charity The Landmark Trust who manages the island and the passenger ship MS Oldenburg.
- Many of the island's historic buildings, with their distinctive granite vernacular, can be rented for holiday use. The island also has its own campsite and tavern.
- A 'jewel in North Devon's crown', valued for a range of experiences and
 activities both above and below the water; birdwatching, walking, Lundy
 letterboxing, climbing, diving, kayaking, paddle-boarding, warden-led guided walks
 and snorkel trips. The east coast's clear waters are a particular draw for divers
 and snorkelers.
- Long-standing connections with Bideford and Ilfracombe as disembarkation
 points for trips to Lundy (including on the island's own MS Oldenburg, as well as
 the historic cruisers the Waverley and Balmoral). Charter boats bring people for
 diving, fishing, sightseeing and wildlife watching.
- Rich waters used for carefully controlled recreational and commercial fishing using a zoned approach (e.g. the east coast's No Take Zone; and the Ray Box). The outer waters of the SCA are unrestricted, used by commercial trawlers from Ilfracombe, Appledore and Bideford and further afield.

 $^{^{13}}$ The Lundy MCZ was the first to be designated in the UK in 2013. Prior to this, the island was the UK's first voluntary Marine Nature Reserve, established in 1971.

- A unique cultural identity defined by a small close-knit working community farremoved from 21st century influences. Mysterious maritime qualities emphasised by the bright beams of the two lighthouses sweeping across dark night skies.
- **Island at the mercy of the elements,** defined by the ever-present influence of the sea. The seascape presents a challenging and exhilarating **'wilderness' experience** to visitors arriving from the mainland.
- Apart from the landing beach, there is limited access to the foreshore surrounding the island – enhancing its remote and highly tranquil and value as a sanctuary for wildlife.
- Lundy forms an important seascape feature visible from all along the North Devon coast as well as the Gower and Pembrokeshire coasts in Wales.
- Square granite tower of St Helena's Church (dating from the 1890s) and the old lighthouse (also granite) forming prominent vertical elements rising up from the plateau, visible from across Bideford Bay.
- Expansive views from the island featuring the lighthouse at Hartland Point and stretching as far as the west Exmoor coast, as well as Woolacombe Down, Baggy Point and Saunton Down. The moving blades of the Fullabrook turbines are visible in the distance in clear conditions. In turn, all these locations include views back to Lundy.
- The arrival of boats and the helicopter bringing passengers from the mainland introduces noise, movement and activity for short spells of time; after which the island reverts to its remote and wild nature, the sounds of the sea and wind once again dominating the soundscape.
- **Recently constructed access road** snaking along the south-east peninsular to link the landing bay with the village. The road and landing bay is visible in views from the wider bay, introducing a rare element of modern influence.
- Lundy is loved and studied by many; a sanctuary and refuge from the modern
 world with rare true qualities of peace, tranquillity and a sense of being 'close
 to nature'.
- It is also one of only a few remaining places where views of shooting stars and the Milky Way patterning a clear dark night sky can be marvelled. The island is designated as a Dark Sky Discovery Site.



The special qualities of this seascape that would be most sensitive to change include:

- Truly unique, with unrivalled levels of peace, tranquillity and dark night skies a breathtaking sanctuary.
- Fascinating history, a rich concentration of nationally important archaeological sites, old granite buildings and legends of the island's chequered past.
- Nationally and internationally important coastal and marine wildlife (including seabirds, seals, Lundy cabbage); clear seas revealing a colourful world of natural and historic curiosities including in views from the cliffs.
- Unrivalled opportunities to explore above and below the water, increasing public understanding and appreciation for marine wildlife and seascape.
- Long, panoramic and uninterrupted views across Bideford Bay to the North Devon coast, and northwards to South Wales also experienced by visitors during their exhilarating journey from the mainland.
- A 'jewel in the view' and focal point in the wider seascape; key to the maritime settings of the North Devon AONB, Exmoor National Park, Gower AONB and Pembrokeshire Coast National Park.







Coastal land / marine resource management

- Spread of rhododendron, particularly along the east coast, affecting the island's unique biodiversity particularly the Lundy Cabbage. A clearance programme as part of the island's Higher Level Stewardship (HLS) agreement aims to eradicate the species from the island by 2025 (currently around 75% clear).
- Historic issues of fluctuating grazing levels by feral goats, sika deer, rabbits and Soay sheep addressed through HLS; an annual vegetation survey carried out in partnership with the National Trust to help inform appropriate stocking levels.
- Rapid 20th century decline in Lundy's seabird population seeing dramatic reversal following the successful eradication of rats from the island. This includes puffin numbers increasing from just five in 2003 to 80 in 2014 (anecdotal evidence suggesting there could now be as many as 300). Breeding storm petrel have been recorded on the island for the first time.
- Potential increases in dredging activity in the wider Bristol Channel (including licenced zones in Welsh waters to the north-east of the island) disrupting sediment flow and load, having the potential to affect the island's distinctive clear waters and conditions favoured by species such as cup corals and pink sea fans.
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences. Increased pollution from a greater number of charter boats visiting the island is also a concern.
- Need for a co-ordinated approach and overarching framework to manage the island's nationally and internationally important marine habitats and species. A Marine Protected Area Management Plan will be prepared in 2015/16.

Aquaculture and fishing

- Impacts of commercial and recreational fishing on the marine resource being addressed through a number of long-term and more recent byelaws and zoned restrictions¹⁴, including a recent extension of protection to the southern reef. Ensuring compliance with the restrictions relies on monitoring and enforcement by the Devon and Severn IFCA and the Marine Management Organisation (MMO).
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group. Locally, issues are discussed via Lundy's own Management Forum and Marine Protected Area Advisory Group.

¹⁴ See https://www.landmarktrust.org.uk/globalassets/1-aa-new-responsive-site-images/website/lundy/documents/lundy-mcz.pdf

Access, recreation and tourism

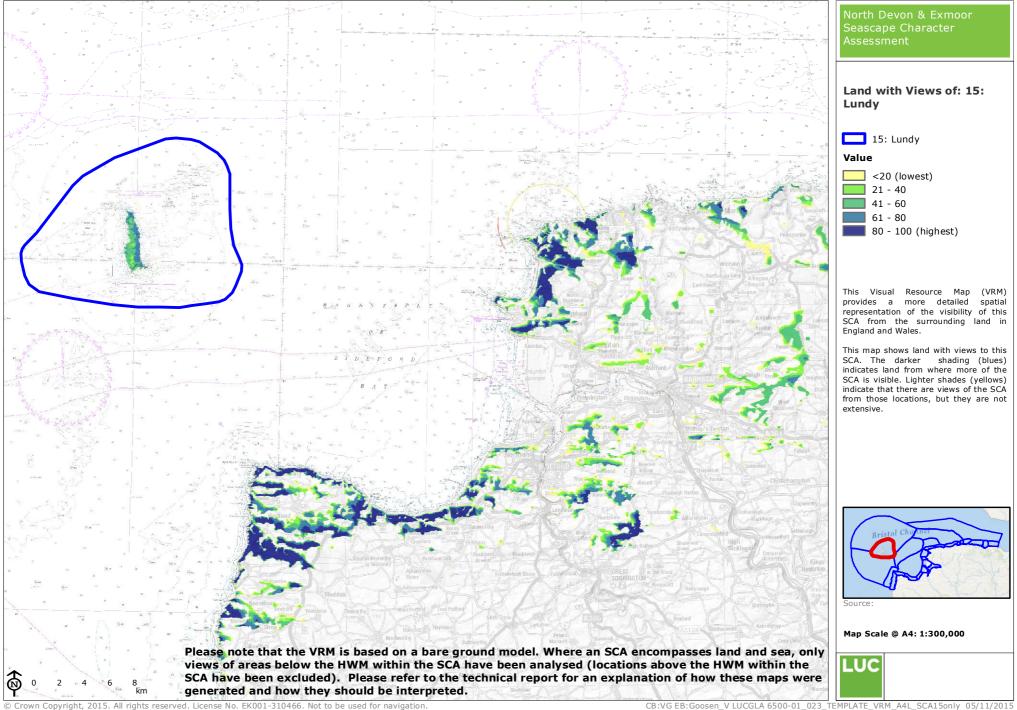
- Increasing popularity of UK-based holidays leading to the potential for higher visitor demand to the island (currently at capacity at 20,000 visitors per year). This could put pressure on natural resources and popular walking routes, increasing incidences of wildlife disturbance and impact on tranquillity.
- Growing demand for water-based recreation and increased number/size of visiting boats raising concerns over wreck and wildlife disturbance (particularly sea birds, grey seals and cetaceans). These concerns are being addressed and promoted through a Code of Conduct developed and promoted by the North Devon Biosphere Reserve and Landmark Trust. An accreditation scheme for responsible charter companies is also being developed.
- Increased number of jet skiers travelling to and around the island, intermittently breaking levels of tranquillity and also raising concerns about wildlife disturbance.
- Arrival of visitors by helicopter impacting on levels of tranquillity, although these are low in frequency and duration (and key to providing year-round access opportunities to the island) therefore not seen as a major concern.

Other development pressures / impacts

- Recent access road constructed from the Landing Beach as a result of cliff erosion threatening the previous road. This has introduced a prominent manmade feature to the south-eastern coastline.
- Strong tidal energy resource around Lundy and the surrounding seas may see future proposals for tidal energy schemes. The North Devon Tidal Zone is situated offshore from the Exmoor coast (covering SCAs 3, 5, 6, 7, 8 and 9); it may be possible that future structures relating to tidal stream devices are visible in distant views from Lundy.
- Ongoing national demand for alternative sources of renewable energy production; although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward impacting on Lundy's special qualities.

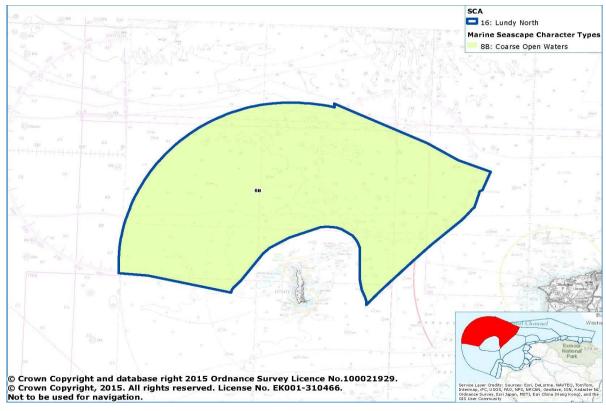
Natural processes and climate change

- Impacts of climate change on the distribution of the island's unique habitats and species, including an increased prevalence of pests, diseases and invasive species. A Biosecurity Plan also seeks to reduce the risk of invasive species arriving on the island (including rats).
- Sea level rise, increased frequency and intensity of storms, and more rapid coastal erosion as a result of climate change, leading to unstable sections of cliffs, more frequent landslides, the 'squeeze' of coastal habitats and potential loss of cliff-top archaeology. The Atlantic-facing west coast is particularly vulnerable.



SCA 16: Lundy North

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)





SCTs within the SCA: 8B Coarse Open Waters

The outer 'Atlantic' part of the study area, forming the western edge of the Bristol Channel where it meets the Celtic Sea, this area is highly remote, located up to 70km from Hartland Point and the Pembrokeshire coast. It forms an important open seascape setting to Lundy in views from both North Devon and South Wales. It is underlain by a bedrock geology of Jurassic sedimentary mudstone and sands, covered by coarse sediments of sands and gravels which provide valued marine habitats, including for commercially fished species. Strong tidal currents and Atlantic swells from the south-west can be hazardous to navigation. The area contains a number of shipwrecks, two of which were torpedoed during WW1.



Natural / physical influences

- The outer 'Atlantic' part of the North Devon seascape, the SCA forms the western edge of the Bristol Channel where it meets the Celtic Sea.
- Deep waters ranging 50 and 60 metres in depth, with a tidal range of over seven metres.
- Mixed bedrock geology of sedimentary mudstones and sandstones and limestones, predominantly Jurassic in age.
- Major fault zone trending NW-SE known as the Sticklepath-Lustleigh fault, extending across the Bristol Channel through to Bovey Tracey and Newton Abbot.
- Occasional small-scale seismic movements relating to the fault zone, last experienced on Lundy in February 2014; faulting rocks are seen along the southern Lundy coast (SCA 15).
- Seabed covered by shallow coarse circalittoral sediments of sand and gravel, exposed to a moderate energy water environment. The sediments are punctuated by areas of boulders and bedrock protrusions.
- The mobile sediments can create isolated **asymmetric sand waves** up to 10m in height. They also support **relatively high biodiversity across the area**.
- Diverse marine species associated with the mobile seabed sediments including
 polychaete worms, bivalves and amphipods; as well as an interesting epifaunal
 community of tubeworms, barnacles, echinoderms, bryozoans and hydroids.
- Important spawning area for commercially fished species including sprat, cod, sole, whiting and plaice. Seasonal populations of squid and sharks are also found in the area.
- Harbour porpoises and dolphins are known to frequent the waters.
- Area of strong tidal currents and open to Atlantic swells from the south-west, creating hazardous seas.

Cultural and social influences (past and present)

- Vessels guided through the hazardous seas by the long flashing beams of Lundy North Light (SCA 15), established in 1897, and Bull Point Lighthouse, established in 1879 (SCA 11).
- Several wrecks dispersed across the seabed, many associated with WWI. These include *The Sovereign*, a Canadian sailing ship; the *Admiral Zede*, a steam ship en route from Buenos Aires to Newport when it was torpedoed and sunk by a German submarine, and the *Aghios Spyridon*, a Greek steamer en-route from Swansea to Naples when she was also sunk by torpedo.
- Wrecks providing artificial reefs; occasional destinations for fishing and diving charters from Wales and North Devon.

- Historical fishing ground, with fishing activities thought to date from the medieval period.
- Continuing importance as an offshore fishery of UK boats and some visiting Belgian and French trawlers, targeting demersal flatfish, roundfish and squid, plus some limited netting.
- East of Lundy, fishing regulations limit larger vessels, with the majority of the
 catch fished by local trawlers and landed in the North Devon ports of Ilfracombe
 and Appledore. Much of the seascape is also covered by the voluntary Ray Box and
 Whelk Box initiatives.
- Commercial shipping routes crossing through the area shipping density ranges from low to moderate with up to 5,000 ships passing through the area annually, travelling to/from the region's major ports including Avonmouth.
- Seabed crossed by several disused and active trans-Atlantic telecommunications cables, including the recently completed *Hibernia Express* network connecting North America, the UK and Europe.
- The area is a Royal Yacht Association sailing area, with routes linking Lundy
 with the Welsh coast and Padstow.

- Part of wide expanse of sea; up to 70 kilometres between Hartland Point and St Govan's Head in Pembrokeshire creating a strong sense of remoteness and isolation.
- Perceptual character strongly influenced by weather and atmospheric conditions; the sounds of winds and waves overwhelming the senses.
- Strong connections and intervisibility between the Gower and Pembrokeshire nationally protected coastal landscapes to the north, and the North Devon AONB and Exmoor National Park coasts to the south and east.
- In clear conditions views are available between Lundy and Caldey Island (Pembrokeshire), with potential mythological/cultural links between them.
- Forms an **important open seascape setting to Lundy** in views from both North Devon and South Wales, allowing the distinctive profile of the island to be perceived against an open, empty horizon.
- Sense of isolation and remoteness broken by passing maritime transport and fishing trawlers, introducing bursts of colour, movement and noise.

The special qualities of this seascape that would be most sensitive to development-led change include:

- A large unbroken expanse of sea, open to the Atlantic Ocean.
- A wild, remote seascape at the mercy of the elements; perceptual character strongly influenced by weather and atmospheric conditions.
- Shipwrecks illustrating the maritime heritage of the area and WWI activity; now valued scuba diving and fishing sites.
- The open seascape setting provided to Lundy in views from North Devon and South Wales, allowing the island's distinctive profile to be perceived.
- Historically important fishing grounds key to sustaining the traditional economy and heritage of local ports and harbours.
- Part of the wider seascape setting of North Devon AONB, Exmoor National Park, Gower AONB and Pembrokeshire Coast National Park.

Marine resource management

- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities, offshore development, and climate change).
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed up on the surrounding coastlines, as well as a greater risk of major pollution incidences.
- Zones of tighter fishing restrictions within parts of this SCA and other areas of the wider Bristol Channel could lead to greater pressures on the fish stocks found within the unrestricted parts of this seascape.

Aquaculture and fishing (continued on next page)

- Uncertainty surrounding future Marine Conservation Zone designation (the North of Lundy recommended site put forward in Tranche 2 has been revoked after discussions with Defra, whilst a desire to put forward a Tranche 3 site further to the west is currently in discussion). The uncertainties also relate to the impacts any future designation(s) might have on fishing activity in the wider area.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Centre for Environment, Fisheries and Aquaculture Science (Cefas), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.
- General lack of knowledge about and official recognition for the voluntary Ray Box initiative, established by local fishermen and in place since 2005 (also adhered to by some fishermen from outside North Devon, including from the Netherlands). This includes encouraging retailers to source from the sustainable fishery, helping support the livelihoods of the fishermen adhering to the initiative. Current IFCA-led research through the *North Devon Skate* (Ray) Pilot Project will also help build evidence for fish sustainability.
- Linked to the above; insecure economic viability for the commercial fishing fleets using these waters, who are much valued as part of the community, local economy and heritage of the wider area.

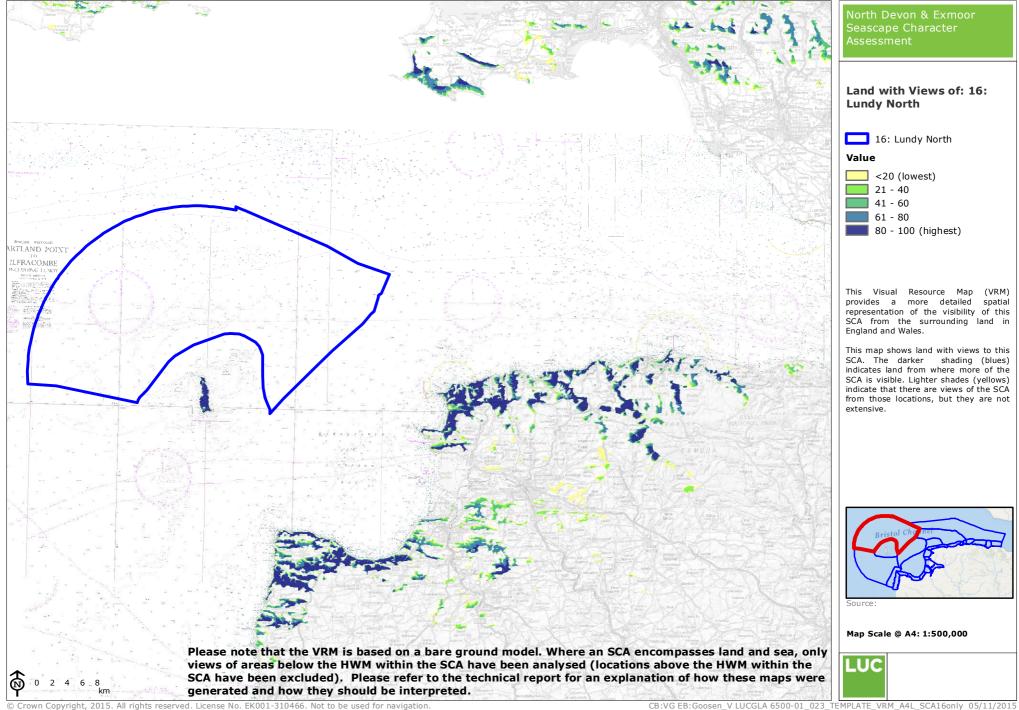
Development pressures/impacts (continued on the next page)

- Increased future demand for aggregates extraction potentially leading to sites within this SCA being explored for dredging (currently none is licenced for this activity). This could disrupt sediment flow and load, having the potential to affect Lundy's distinctive clear waters and conditions favoured by species such as pink sea fans and cup corals.
- Strong tidal energy resource may see future proposals for tidal energy schemes, impacting on the open and undeveloped character of the seascape and its setting to Lundy (and the surrounding protected landscapes).

• Ongoing national demand for alternative sources of renewable energy production; although the Atlantic Array proposal did not proceed, it would have been located within this SCA owing to the optimum wind resources found here. Due to this technical potential, offshore wind energy schemes may still come forward which could impact on the simple, open character of the sea and its crucial maritime setting to Lundy.

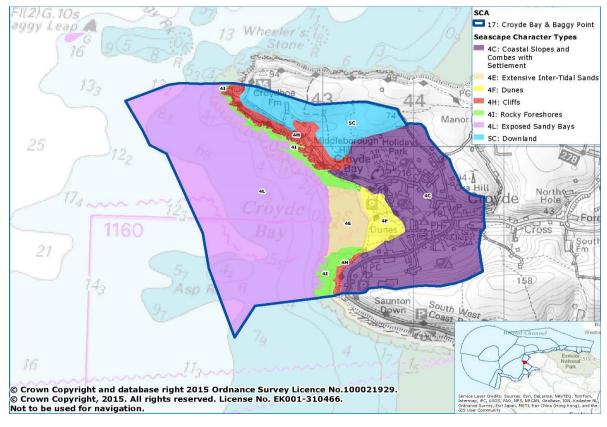
Natural processes and climate change

• Increased frequency of storm surges and sea level rise as a result of climate change, accelerating the shifting nature of the sand/gravel sediments within the SCA; disrupting sediment flow/load within the waters; and putting coastal communities at greater risk of coastal flooding, erosion and storm damage.



SCA 17: Croyde Bay & Baggy Point

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)



SCTs within the SCA: 4C Coastal Slopes and Combes with Settlement; 4E Extensive Intertidal Sands; 4F Dunes; 4H Cliffs; 4I Rocky Foreshore; 4L Exposed Sandy Bays; 5C Downland.

A small, westwards-facing bay contained by the cliffed headlands at Saunton Down and Baggy Point. It comprises a wide sandy beach backed by a dune system at Croyde Burrows, with extensive wave-cut platforms to the north and south. The bay fronts a settled hinterland set within a combe valley, containing the popular seaside resort of Croyde. It is nationally designated for its geodiversity and diverse range of rare coastal and maritime habitats. The bay is exposed and open to high wave energy from the North Atlantic with strong currents and rip tides, with the rocky platforms and reefs forming dangerous hazards to navigation. The seascape has strong associations with World War II, used by Allies for D-Day training.

The coastal areas of the SCA forms part of the North Devon AONB and the North Devon Heritage Coast.



Natural / physical influences

- **Small westward facing bay** backed by sand dunes of Croyde Burrows and fronted by a wide sandy beach, bounded by cliffed headlands at Saunton Down to the south and Baggy Point to the north.
- Rugged-faced, smooth-profiled and largely flat promontory of Baggy Point, rising abruptly from the sea to 95m AOD. The Point is fronted by **rocky wave-cut platforms** between 10 and 14m high.
- Smaller rounded headland formed by Saunton Down to the south, rising to 113m AOD also plunging dramatically down to a rocky wave-cut platforms of between 8 and 10m high.
- Nationally designated for its geodiversity –coast underlain by a mixture of Devonian sandstones, shales /slates, siltstones and rare thin limestones, deposited in marine and brackish environmental settings. It forms the transition to the characteristic Morte Slates to the north.
- Sand dune system of Croyde Burrows resting against a stony head deposit, supporting a nationally important mosaic of dune grassland, tall herbs and scrub.
- **Soft Quaternary raised beach and periglacial deposits** overlaying the Devonian rocks, subject to high rates of erosion particularly between Downend and Chesil Cliff. The coast around Saunton is famous for large glacial erratics.
- Seabed shelving to a maximum depth of approximately 12m, formed of Devonian and Carboniferous mudstone and sandstone, overlain by sand deposits.
- Wave-cut platforms, rock pools and sandy shores of biological importance, supporting a variety of marine flora and fauna including blennies and anemones and the Celtic sea slug, as well as lobsters and crabs (the area forms part of the Bideford to Foreland Point Recommended Marine Conservation Zone).
- Rich in semi-natural habitats, comprising a mosaic of maritime grasslands, heath and scrub along the cliff-tops, important lichen communities on the clifffaces, as well as wildflower-rich dune grasslands at Croyde Burrows.
- Cliffs supporting important breeding colonies of seabirds including guillemots and razorbills.
- Exposed and open to high wave energy from the North Atlantic with strong currents and rip tides. The extensive wave-cut platforms and reefs also form dangerous hazards to navigation, waves are amplified on Asp rock; the area renowned for low tide barrels.

Cultural and social influences (past and present)

Historic landscape features along the coastal edge including a former limekiln
on the foreshore (now a public shelter) and a chain of dummy World War II
pillboxes along Baggy Point and set into the cliffside at Downend; the wider area
used by Allies for D-Day training.

- Iconic feature of the Baggy Point Coastguard Pole, originally used in the 1930s for coastguard training (representing a ship's mast). The pole has long been a favourite photo feature in people's visits to the headland.
- Historic core of the village of Croyde set within a combe valley as it broadens out to meet the sea.
- **Expanded as a tourist resort,** Croyde now sprawls across the upper slopes, with 20th century and recent suburban housing estates, white painted bungalows and holiday chalets/static caravans dominating.
- High intensity use of the beach and dunes, particularly for surfing (one of the UK's premier surf spots) but also popular for bathing and rock-pooling. The area hosts the three-day Gold Coast Oceanfest every June.
- Cliffs around Baggy Point used for climbing and coasteering.
- **Popular for recreational angling,** including for bass, ray, dogfish, small turbot and conger; the activity often taking place at night. Baggy Point is a hotspot for commercial lobster and crab potting.
- **The MS Oldenburg** passes through the waters on its route between Bideford and Lundy, affording passengers views of this distinctive seascape.
- Accessible coast, with a coastal road winding around Saunton Down and the SW
 Coast Path and Tarka Trail circumnavigating the headlands. Croyde dunes are also
 crossed by a network of paths.
- Offering scenic views over the bay from the north, open access land around Baggy
 Point is owned and managed by the National Trust, providing further access
 and enjoyment opportunities.

- Strong maritime character with an overriding presence of the sea; stark contrasts between the often wild and rugged coastal headlands and the enclosed developed bay at Croyde.
- Perceptual qualities varying throughout the day and season; holiday periods and weekends seeing an influx of visitors creating movement and activity both along the coast and in the water.
- Open, expansive landscape with extensive seaward views to the west, framed by the rocky heath-clad headlands. Fishing vessels and large-scale container ships travelling to/from the Bristol Channel often feature in views.
- Distinctive seascape feature of Lundy's long, low profile on the horizon.
 Worm's Head (Gower) is discernible in northerly views from Baggy Point, and Dartmoor features on southerly skylines from elevated points.
- Views into the bay from the sea characterised by cliffs and rounded headlands framing the pale beach and dunes.

- White and green static caravans and chalets dominating the scene behind the dunes, also occupying the upper combe slopes to the north particularly prominent in views from the sea.
- Telecommunications mast on Ora Hill and turbines at Fullabrook Down creating prominent man-made structures, the latter seen in views across Bideford Bay from Lundy (SCA 15).







The special qualities of this seascape that would be most sensitive to development-led change include:

- Unique geological features and geodiversity, with distinctive wave-cut rocky platforms and rugged cliffs.
- Rich diversity of habitats including maritime heathland, dry dune systems, rock pools and cliffs supporting important seabird colonies.
- Historic landscape features and associations with World War II including the line of dummy pill boxes.
- Tourism hotspot offering a range of coastal and water-based activities particularly renowned for surfing, swimming, rockpooling, climbing and coastal walks.
- Constantly changing, dynamic coastal landscape and sea conditions dangerous rip current and low tide barrels.
- The tranquillity and wild, untamed beauty of the large dunes, and enclosed nature of the bay with rounded downland behind.
- Expansive views across the expanse of Bideford Bay, to Lundy and Hartland Point with its bright white lighthouse.







Coastal land / marine resource management

- Scrub encroachment on areas of open heathland/maritime grassland due to a long-term decline in grazing levels addressed through Environmental Stewardship agreements. The National Trust is currently using a traditional flock of Hebridean sheep to graze habitats on Baggy Point.
- Post-war intensification of agriculture spurred on by CAP-related subsidies in the 1970s, leading to field enlargement and a spread of intensive arable cultivation along some downland farmland backing the cliffs.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Potential increases in shipping to/from the Bristol Channel leading to pollution and an increase in waste/litter washed in from the bay, as well as a greater risk of major pollution incidences.
- The National Trust is currently raising funds for the replacement of the Coastguard Pole on Baggy Point a popular heritage feature which has deteriorated in condition due to exposure to the elements.

Aquaculture and fishing

- Unknown outcome of Marine Conservation Zone designation (the Bideford to Foreland Point recommended site is currently under consideration by Defra), including the impacts any future designation might have on fishing activity in the wider area
- Uncertainty over the long-term economic viability of the commercial fishermen and potters who use these waters, including from Ilfracombe, Appledore and Bideford, who are much valued as part of the community, local economy and heritage of the area.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism (continued over the page)

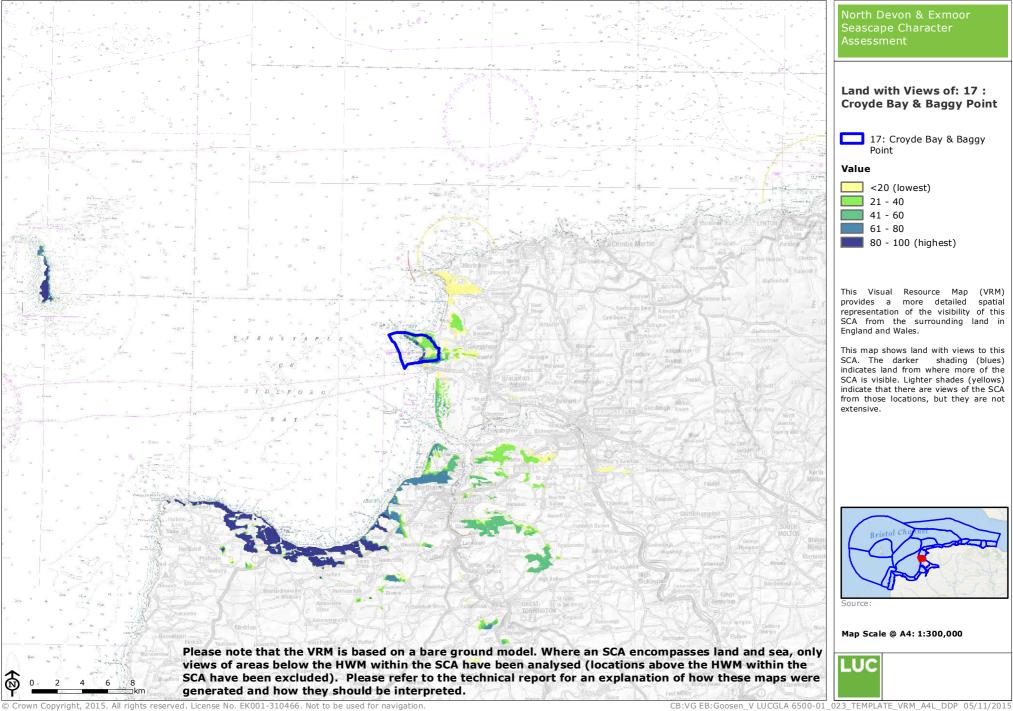
- Holiday parks extending into undeveloped areas of the coast (including elevated hill slopes) and becoming more permanent in nature e.g. the change from touring pitches to static caravans and permanent lodges. This is increasing the influence of development on the seascape, reducing levels of tranquillity and dark night skies. Views to development (including related lighting) are perceived from across Bideford Bay.
- The location of static caravans placed behind the north dune is preventing the dune migrating inland, leading to the need to stabalise the feature which is already under significant pressure from recreational use.

• Increasing popularity for surfing and bathing, seasonally bringing increasing numbers of people and traffic to the area over an increasing length of holiday season, potentially affecting the condition of the dunes through erosion and leading to incidences of wildlife disturbance.

Other development pressures / impacts

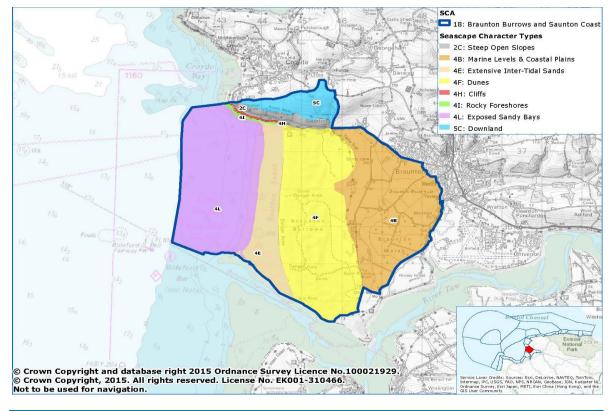
- Increasing demand for larger residential development, extending beyond existing settlement boundaries or replacing existing buildings with a scale and architectural style that is not always sympathetic to the setting and character of the area.
- Vertical structures standing out on the skyline in views from around the bay and from the sea, including the telecommunications mast at Ora Hill, telegraph poles along the road into Croyde and turbines at Fullabrook Down. These features are visible from Lundy (SCA 15) in clear conditions.
- Ongoing national demand for alternative sources of renewable energy production, including offshore wind and tidal energy (stream devices and tidal lagoons). Although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward which could impact on the special qualities of this SCA, including its open seaward views with Lundy as a key focal point.

- The Shoreline Management Plan recommends a policy of 'no active intervention' along this stretch of coast, with debates regarding dune stabilisation versus allowing them to migrate inland, as noted under 'Access, recreation and tourism' above. This policy will support the integrity of the SSSI-designated geological features, although the minor road and footpaths around Middleborough Hill and Downend could be at risk from erosion.
- Sea level rise and the process of coastal squeeze in the long term may reduce the width of the beach and lead to the loss of undesignated heritage assets and recreational facilities such as camping parks and cafes. Some WWII pillboxes and a 17th century burial ground for shipwrecked sailors have already been lost to the sea along the fast eroding virgin cliff between Downend and Chesil Point.
- Impacts of climate change on characteristic open maritime grassland and coastal heathland habitats, with potentially increased growth rates accelerating the spread of scrub, as well as an increased prevalence of pests and diseases.



SCA 18: Braunton Burrows and Saunton Coast

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)



SCTs within the SCA: 2C Steep Open Slopes; 4B Marine Levels and Coastal Plains; 4E Extensive Intertidal Sands; 4F Dunes; 4H Cliffs; 4I Rocky Foreshores; 4L Exposed Sandy Bays; 5C Downland.

A west-facing shallow bay, enclosed to the north by the rounded headland of Saunton Down. It is backed by the long expanse of Saunton Sands, extending north from the mouth of the Taw/Torridge Estuary. The SCA contains the dynamic dune system of Braunton Burrows, second largest in the UK and central to the UNESCO Biosphere Reserve. This fronts a hinterland of reclaimed marshland, including the historically important Braunton Great Field. Eroding cliffs are fronted by wave-cut platforms and rock pools rich with sealife. A seascape rich in military and maritime heritage; today a popular destination for a range of coast and water-based activities. Strong visual connections are made with the Taw/Torridge Estuary and wider Bideford Bay, including the Hartland coast and Lundy.

The coastal areas of the SCA forms part of the North Devon AONB and the North Devon Heritage Coast.



Key characteristics

Natural / physical influences

- Low-lying sandy shoreline fronting the Braunton coast, extending northwards from the mouth of the Taw-Torridge Estuary to Saunton in the north.
- Wide sandy foreshore running north to south (Saunton Sands) inundated at high tide, backed by the large sand dune system of Braunton Burrows.
- Prominent headland of rounded, eroding cliffs of steeply dipping
 Devonian sandstones and shales, and younger cliffs of softer glacial drift
 deposits, rising steeply to Saunton Down (150m AOD) to dramatically frame
 the SCA to the north.
- Raised sand, pebble and shell beaches forming soft cliff bases. along with erratic material, telling the story of past sea level rise.
- The 12 tonne Saunton Pink Granite boulder was transported from the highlands of Scotland during the last Ice Age. Present day cliffs are possibly the fossilised remains of a much larger sand dune system created during the last Ice Age.
- Shallow waters reaching a maximum of 10m depth, underlain by a seabed of Devonian and Carboniferous sandstone and mudstone, topped by large deposits of sand. Wave-cut platforms extend from the base of the cliffs at Saunton.
- Exposed westerly aspect, at times battered by strong onshore winds.
 Combined with a large tidal range, these natural forces deposited tonnes of sand over millennia to create the dune system and wide intertidal sands.
- Sand banks exposed at low water, creating hazards to navigation into the Taw/Torridge Estuary. Boats confined to a narrow buoyed channel between the banks.
- Infralittoral sand and muddy sand substrates providing important habitats and nursery grounds for various fish (including bass and salmon) and other benthic species.
- Wave-cut platforms and rock pools to the north of Saunton beach supporting a variety of marine flora and fauna including blennies and anemones and the Celtic sea slug, as well as lobsters and crabs. Majority within the Bideford to Foreland Point Recommended Marine Conservation Zone.
- Hinterland of reclaimed 19th century marshland and pasture behind the burrows at Braunton Marsh, including the historically important medieval strip field system at Braunton Great Field.
- Unique flora and geomorphology; a sequence of sandy foreshore, dunes and grazed marshland supporting a successional range of plant communities, including lichens and diverse species of flowering plants. Cliffs with gorse and scrub

- supporting important **breeding colonies of seabirds** including guillemots and razorbills.
- Nationally and internationally important dynamic dune system at Braunton Burrows, second largest in the UK, with dune ridges up to 30m AOD. Designated SAC, SSSI and central to the **UNESCO Biosphere Reserve**, these are highly visible in views from across the bay; the bare Flagpole Dune a particular landmark.

Cultural and social influences (past and present)

- Preserved medieval open strip fields at Braunton Great Field (one of the finest in the UK) complemented by nationally designated 14th century lynchets on the coastal slopes below Saunton Down.
- Several linhays and other livestock shelters (most Grade II listed) dotted across Braunton Marsh, and the distinct Great Bank (built in 1809) also telling the story of historic agricultural evolution.
- 1922 wreck of the coal-laden ketch Alfred Emma within the dunes, one
 of many victims of the treacherous Bideford Bar nearby.
- White painted Art Deco-style landmark building of the Saunton Sands Hotel, a feature in many views from across Bideford Bay.
- Velator Quay, formerly a busy ship-building port on the River Caen, historically played an important role in the trade between North Devon, Wales and Bristol. Today it is used by pleasure boats.
- Long associations with onshore and offshore military use, large parts remaining under lease to the MoD for military training (including vehicle manoeuvres and live firing on Braunton Burrows).
- The foundation remains of the old lighthouse on Airy Point, which existed until the 1940's to help vessels navigate into the Estuary, are still clearly visible.
- WWII features include the concrete landing craft still present from Normandy beach landing practices at the southern end of the dunes; the coast is still used for military training.
- Cable landing station located at Saunton for the Atlantic South and Western Europe submarine cables.
- Commercial and recreational fishing activity, for species including mackerel, rays, smoothound, pollock and bass (anglers known to fish after dark for bass from Saunton Sands). Scuba diving occasionally takes place in the waters.
- Popular destination for surfing, kite boarding and beach holidays.
 Saunton Golf Course integrated into the dunes to the north of the SCA.
- SW Coast Path and Tarka Trail trace the slopes of Saunton Down and behind the dunes, providing opportunities for coastal recreation and access – served by several car parks.

Perceptual and aesthetic influences

- Large skies and seas dominating, this is a wide and open landscape with high levels of tranquillity and qualities of wildness, particularly within Braunton Burrows.
- Seascape strongly recognisable in views from along the Bideford Bay coast (as far as Hartland Point) and out to sea – particularly the golden expanse of the sands and dunes. The turbines of Fullabrook Down form moving features behind.
- Contrasting and ever-changing colours and textures; the golden sand dunes and beach, the green marshes, and the dynamic blues and browns of the sea. Wild flowers on the dunes introduce further rich and varied colours in the summer months.
- **Wide views across the Taw Torridge estuary** from the slopes below Saunton Down towards development at Instow, Appledore, Northam and Westward Ho! contrasting with the naturalistic seascape in-between.
- Holiday periods transforming the scene, with an influx of visitors creating movement and activity both along the coast and in the water.
- Uninterrupted maritime vistas across the wider Bideford Bay to Lundy, particularly from the elevated sand dunes and open beach.
- Atmospheric beach at Saunton Sands forming the setting for famous music videos including Pink Floyd's The Wall and Robbie Williams' Angels.







Special qualities and key seascape sensitivities

The special qualities of this seascape that would be most sensitive to change include:

- Diverse geology and geomorphology; ancient cliffs with wave-cut platforms, wide sandy beach, rock pools and shallow sandy waters supporting a rich marine life.
- Vast sand dune system you can get lost in, with an abundance of wildlife and rare flowering plants, central to the UNESCO Biosphere Reserve.
- Outstanding preserved medieval open strip fields at Braunton Great Field.
- Long-standing historic associations with military activity and World War II.
- A social meeting place and destination for families; popular for walking, surfing/kite surfing, beach activities and for taking in its expansive views.
- A strong sense of solitude and remoteness, particularly within the dunes and during westerly storms.
- Open skies affording never-ending views extending towards Lundy, along the Hartland Coast and across the Taw/Torridge Estuary.







Forces for change affecting seascape character and condition

Coastal land / marine resource management

- Ongoing grazing on the dunes required to prevent the encroachment of scrub impacting on their open character and condition. Uncertainty over long-term management of the Burrows, should current tenancy by MOD change.
- Loss of previous areas of coastal heathland to agricultural improvements or scrub encroachment; the restoration of grazed heath on Saunton Down would enhance local landscape character, support wildlife and help preserve the traceability of the 14th century strip lynchets.
- Historic and unique pattern of stripfields within Braunton Great Field vulnerable to change related to intensification, as well as a reduction in the number of landholders and managers, which can see fields amalgamated. Stone walls and traditional linhays across the farmed coastal landscape falling into a poor state of repair due to a lack of maintenance.
- Improvement of drained grazing pastures to intensive arable production and horticulture leading to falling water levels on the Braunton Marsh, affecting the wildlife and the hydrology of the adjacent SAC/SSSI at Braunton Burrows.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Potential increases in shipping to/from the Bristol Channel leading to pollution and an increase in waste/litter washed in from the bay, as well as a greater risk of major pollution incidences.

Aquaculture and fishing

- Uncertainty surrounding future Marine Conservation Zone designation (the Bideford to Foreland Point recommended site is currently under consideration by Defra), and the impacts any future designation might have on fishing activity in the wider area.
- Uncertainty over the long-term economic viability of the commercial fishermen who use these waters, including from the nearby traditional ports of Appledore and Bideford, who are much valued as part of the community, local economy and heritage of the area.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism (continued over the page)

Levels of remoteness and tranquillity intermittently affected by the sounds of jet skis and motorboats travelling to and from Taw/Torridge Estuary.

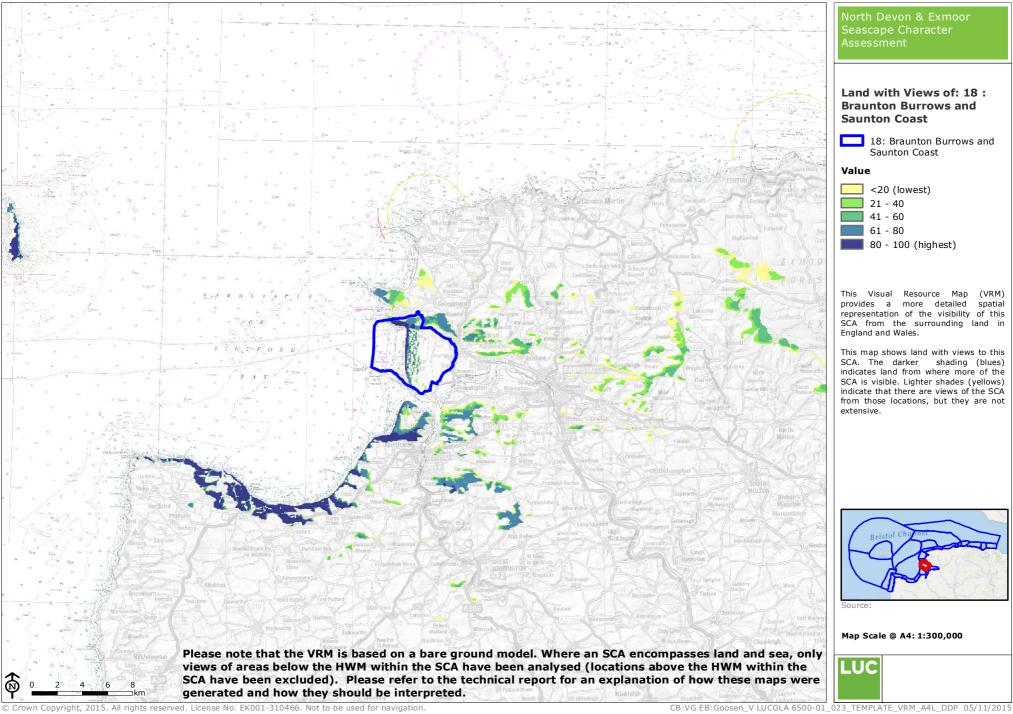
Concerns regarding wildlife disturbance by motorcraft are being addressed by a voluntary Code of Conduct developed and promoted by the North Devon Biosphere Reserve.

• Further growth in popularity of the area and the surrounding coast for recreation and tourism, putting pressure on the fabric of the landscape, impacting on levels of tranquillity and leading to further demand for facilities and infrastructure within and close to the dunes.

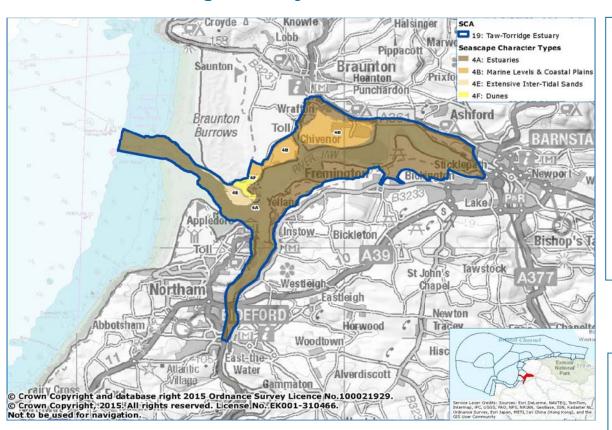
Other development pressures / impacts

- Increasing demand for larger residential development, extending beyond existing settlement boundaries or replacing existing buildings with a scale and architectural style that is not always sympathetic to the setting and character of the area. This is particularly apparent along the Saunton Down road, where the bright white Saunton Sands hotel and adjacent properties stand out in views from across Bideford Bay, through to Hartland Point (SCA 24).
- Future growth of Braunton as a main town serving the district, and within the lower Taw estuary between Fremington and Instow, further intruding into the open, tranquil landscape. Encroaching development and urban fringe pressures (including pony paddocks) from Braunton is a particular issue on the eastern fringes of Braunton Great Field / Marsh and the north-western fringes of Chivenor Airfield.
- Sand and gravel extraction at Crow Point (5,000 tonnes per year, now ceased), decreasing the feature's ability to protect the foreshore.
- Views to urban development at Appledore and Westward Ho! impacting on perceptions of tranquillity, remoteness and dark night skies.
- Wind turbine developments on the elevated downland rising up behind the coast, particularly Fullabrook; prominent in open views from the elevated dunes, Saunton Down ridgeline and from out to sea, including as far as Lundy (SCA 15).
- Ongoing national demand for alternative sources of renewable energy production, including offshore wind and tidal (stream devices and tidal lagoons). Although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward which could impact on the special qualities of this SCA, including its open seaward views with Lundy as a key focal point.

- Shoreline Management Plan recommends 'no active intervention' along much of this stretch of coast. Braunton Burrows are considered to be a robust natural defence for low-lying areas inland. The extent of Saunton Beach may reduce and a risk may be posed to archaeological features along the coast, but natural processes will continue to develop the Braunton Burrows dune system.
- Existing defences at Saunton requiring maintenance, otherwise there may be increased erosion risk around the cliffs below Saunton Down. Uncertainty over sources of funds to maintain the existing structures at Saunton in the medium to long term and potential for deteriorating coastal defences to impact on seascape character.
- Sea level rise may result in rising water levels across Braunton Marsh and more frequent flood events, affecting the agricultural viability of the area and the composition of valued semi-natural habitats.
- Impacts of climate change on characteristic heathland and maritime grassland habitats, with potential for increased growth rates accelerating the spread of scrub into the open coastal landscape, along with an increased prevalence of pests and diseases.



SCA 19: Taw-Torridge Estuary



Click here to return to interactive overview map of the Seascape Character Areas (SCAs)

SCTs within the SCA: 4A Estuaries; 4B Marine Levels and Coastal Plains; 4E Extensive Intertidal Sands; 4F Dunes.

This SCA comprises the combined estuary system of the rivers Taw and Torridge draining into Bideford Bay, defined by a broad sweep of expansive mud flats and sandbanks. It is nationally important for biodiversity, attracting large colonies of birds feeding on the rich intertidal habitats, and provides nursery areas for fish. The estuary has a long and rich maritime history dating back to the Vikings, with historic working ports and fishing harbours lining its banks. This is a large, expansive and dynamic landscape, formed by a complex tidal system which changes rapidly hour to hour.

The area is located immediately adjacent to the North Devon AONB, and parts are within the North Devon Heritage Coast.

Key characteristics

Natural / physical influences

- A complex estuarine system with contrasting geomorphology. The Taw flows through a broad valley, rising up steeply to the north to Saunton Down. The Torridge estuary is narrower and deeper occasionally enclosed by rocky, often wooded cliffs.
- Underlain by a solid geology of Upper Carboniferous rocks, predominantly sandstones and mudstones, but mostly defined by large deposits of estuarine clays and accumulations of marine sand.
- Dynamic landscape formed by a complex tidal system including rapid inundation, with a tidal range of 7.5 metres where the estuary drains into Bideford Bay.
- Notorious shallow sand bank of the Bideford Bar, forming the crossing point from the bay into the estuary, dangerous in heavy weather and when winds oppose the strong tidal flows.
- Numerous navigation features marking safe passage; estuary approached through a buoyed channel, with further guidance provided by the steel lighthouse at Crow Point (1954) and the beacons on the hills near Instow.
- Nationally important for biodiversity, designated as a SSSI, including salt-marsh, mud and sand-flats and lagoons supporting a wide range of intertidal and marine wildlife, including nursery areas for fish and the endangered European eel.
- Parts of the estuary are a Recommended Marine Conservation Zone, with areas around its mouth within the wider Bideford to Foreland Point Recommended Marine Conservation Zone, including its unique tide-swept channels.
- Taw fringed by tidal grazing marsh, areas of reclaimed saltmarsh and rough grassland and arable fields protected by embankments and walls and divided by brackish ditches.
- Colonies of waders, wildfowl and seabirds, the RSPB reserve at Isley Marsh Nature Reserve and Gia Trust bird reserves at Pottington and Home Farm Marsh providing opportunities for bird watching.

Cultural and social influences (past and present)

- Long seafaring history, including the legend of 23 Viking ships landing in Appledore. The invaders were eventually defeated by the Saxon army at the Battle of Cynuit.
- Bideford was the largest tobacco importer after Bristol, and has long associations with famous Elizabethan sea captains such as Drake, Raleigh and Grenville.

- **Boat yards, dry docks**, **numerous jetties** (including two between Yelland and Instow) **and slipways** dotted along the banks.
- 19th century Fremington Quay, formerly a significant port served by rail, developed when access to Barnstaple became difficult due to siltation. Today it is a popular visitor attraction.
- Legacy of the notorious Bideford Bar. Braunton sailors, adept at negotiating the bar, came to be known as 'bar men'. Several wrecks are dotted around the estuary, some visible at low tide.
- **Bridge crossings forming landmark features,** including the 24-arched Long Bridge in Bideford (Grade I listed) and Barnstaple Long Bridge, themselves affording long, elevated views.
- **18**th **century Tapeley Park** (Grade II*) forming a distinctive wooded skyline above the Torridge. **Heanton Court** also features on the banks of the Taw opposite Fremington Quay.
- Working historic port at Bideford, home to a small fishing fleet and vessels transporting timber. Sand dredgers off Crow Point were a frequent sight until the industry's decline in the 1980s.
- Appledore once housed the largest indoor dry dock in Europe; the historic port town still has a working ship building industry, recently building ships for the Irish Navy.
- Regionally important fishing port at Appledore, landing a range of fish and seafood (including rays, sole, bass, lobster, crabs, whelks, mussels, ovsters and squid) from the surrounding seas.
- Commercially and recreationally fished waters containing sea bass nurseries and mussel beds. The estuary is renowned for its populations of flounder, as well as summer shoals of grey mullet. The mud and sand flats are also popular for bait digging.
- Traditionally the waters were netted for salmon, although netting restrictions are now in place across the area.
- **Chivenor Airfield**, sited on 19th century reclaimed marsh on the banks of the Taw. Dating from the 1930s it includes barracks and hangers and areas of brownfield land; still used as a Royal Marines Training Base.
- Ongoing military activities and exercises linked to the Atturm base at Instow and Zeta berth at Westleigh, commonly sighted within the estuary.
- Valued as an important recreational space for nearby urban populations and visitors, including via the South West Coast Path and the Tarka Trail Cycleway. The Tarka Trail follows former railway lines which connected the local ports to Barnstaple, Ilfracombe and through to London Waterloo (until closure in 1964).
- The estuary also provides sheltered waters for a range of water-based recreational activities, including sailing and water-sports.

- North Devon Yacht Club is based in Instow, and Bideford is the embarkation point for trips to Lundy on the MS Oldenburg.
- The **Appledore Ferry** operates in the summer between Instow and Appledore, often used by SW Coast Path walkers. A ferry previously operated for hundreds of years from Crow Point.

Perceptual and aesthetic influences

- A sheltered estuarine environment contrasting with the adjacent open and exposed coast.
- Rapid and ever-changing tidal character, with expansive mudflats exposed at low tide quickly disappearing as the estuary fills with water.
- **Rural setting** provided by the banks of the Taw Estuary and the wooded hills slopes enclosing the Torridge to the east.
- Adjacent development at Westward Ho! influencing views within the
 west and Fullabrook wind farm and other turbines often form moving
 structures on landward horizons.
- Range of contrasting views, from channelled views within the estuary to open coastal vistas at its mouth across Bideford Bay, framed to the west by the protruding form of the Hartland Peninsula.
- **Expansive views across the flat marshes**, sometimes obscuring the estuary itself to give the impression of being able to walk across a complete expanse of marsh.
- Rugged expansive sand dunes and golden beaches framing the estuary mouth, with contrasting views to the settled enclosing hills and development at Appledore, Instow and Bideford.
- The sounds and movements of thousands of birds and the expansive intertidal habitats contrasting with nearby human activities and noise.
- Strong sensory characteristics: changing colours and qualities of light, sunlight reflecting on the water and rich textures of the salt marshes and exposed sand flats.
- Seascape providing artistic and literary inspiration; perhaps most famously
 as the setting for Henry Williamson's Tarka the Otter, its setting focused on the
 marshes around Horsey Island.

Special qualities and key seascape sensitivities

The special qualities of this seascape that would be most sensitive to development-led change include:

- Dynamic landscape which changes quickly and dramatically from exposed mudflats fast-flowing tides.
- The sheltered, safe haven of the estuary once the notorious Bideford Bar has been crossed.
- Nationally important coastal and intertidal habitats, supporting a wide variety of plants and animals.
- Ease of access to take part in a wide range of activities, including sailing, walking or cycling along the Tarka Trail, or simply enjoying the view.
- Rich maritime heritage associated with the historic working ports at Bideford and Appledore, still home to regionally important fishing fleets.
- Strong sensory characteristics, with constantly shifting colours, smells and textures and the sound and movements of thousands of birds.
- High levels of relative tranquility, on the doorstep of development and urban populations.
- Range of contrasting views linking land and sea, from enclosed views within to open vistas at the estuary mouth across Bideford Bay.







Forces for change affecting seascape character and condition

Coastal land / marine resource management

- Some fields fringing the estuary suffering from a lack of grazing, with a spread of brambles and scrub changing the character of the farmland conveying an 'urban fringe' feel.
- Deterioration of the estuary's water quality due to diffuse pollution from surrounding agricultural land, as well as sewage over-flows following heavy rainfall. Nutrient loading can impact on the seascape's characteristic mussel beds, with periodic E. coli breakouts linked to diffuse agricultural pollution.
- Changing frequency and extent of dredging within the estuary (including due to cost) leading to the silting up of entrance channels and erosion impacting on Crow Point. Restricted access by larger vessels could impact on the economic sustainability of the working ports at Bideford and Appledore.

Aquaculture and fishing

- Uncertainty surrounding future Marine Conservation Zone designation (recommended sites awaiting a decision by Defra), including within the estuary itself and the wider waters frequented by local fishermen. This is particularly in terms of the impacts any future designation might have on fishing activity both commercial and recreational. Fixed netting restrictions are already in place across much of the SCA.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.
- Uncertainty over the long-term economic viability of the remaining commercial fishing fleet at Bideford and Appledore, who are much valued as part of the community, local economy and heritage of the area.
- The Estuary is currently being investigated as a potential location for a Marine Aquaculture Centre.

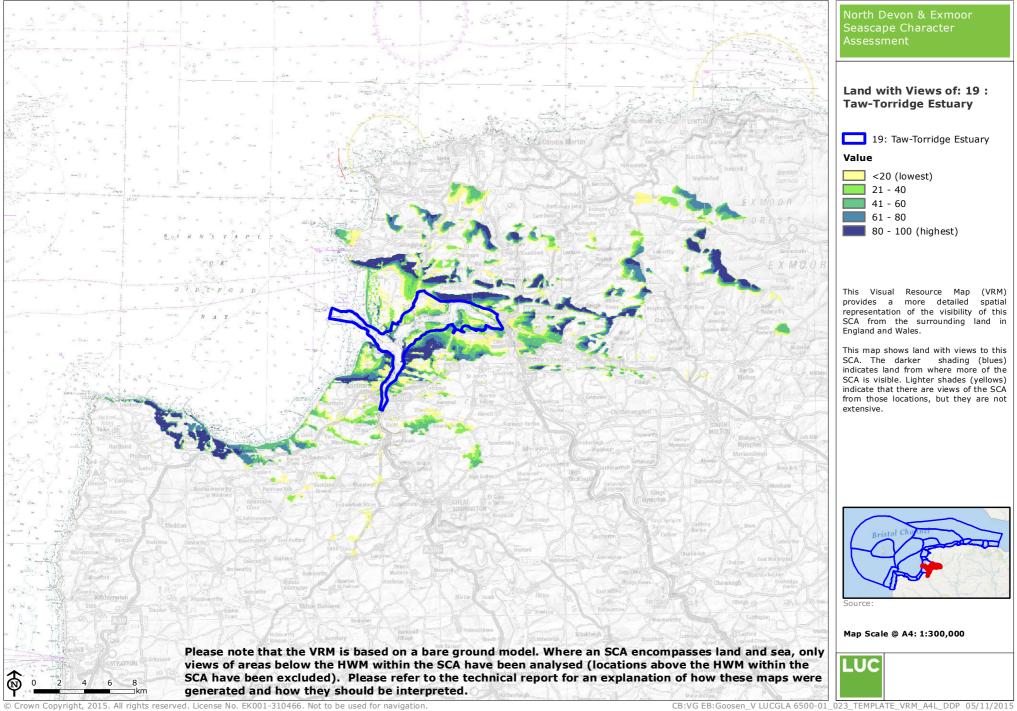
Access, recreation and tourism

- Further growth in popularity of the area and the surrounding coast for both coast and water-based recreation and tourism, impacting on the estuary's levels of tranquillity (for example through an increased use of jet skis), leading to increased demand for facilities and infrastructure.
- Lack of a marina to support the growing water-based tourism economy of the wider area. Whilst there is general local support for a facility, proposals to-date have come attached with larger housing development requirements to make them economically viable. Such large developments could impact on the special qualities of the estuary and its wider rural setting.
- Concerns regarding wildlife disturbance as a result of increased use of the estuary including by jet skis, motorcraft and bait diggers. These issues are being addressed by a voluntary Code of Conduct developed and promoted by the North Devon Biosphere Reserve.

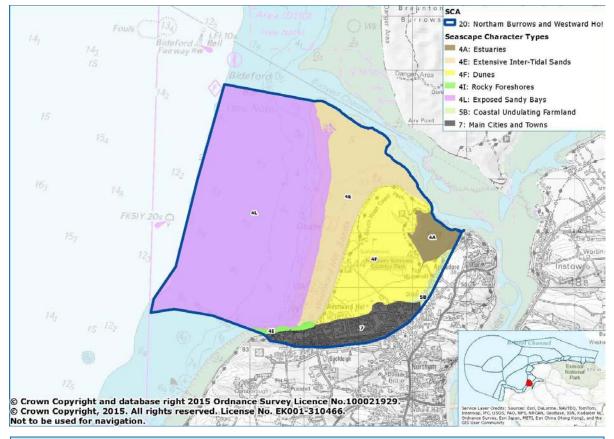
Other development pressures / impacts

- Development pressures and new development proposals on brown- and green-field land fringing the estuary (e.g. the former Yelland power station site), impacting on the estuary's naturalistic and tranquil qualities, levels of light pollution, and potentially its wildlife. The setting of the North Devon AONB and the nearby Braunton Burrows (SCA 18), known for its 'wild' qualities, may also be affected by future development.
- Future growth of Barnstaple, Braunton and Bideford/Northam/Appledore as the main towns serving the two districts, extending into the open estuary landscape and on its open skylines. Particular pressure for housing development in southern areas where there are good existing links to transport networks. This could lead to the coalescence of Bickington, Fremington and Yelland.
- Present uncertainties relating to planning policy the current Torridge District Local Plan includes their part of the estuary within the Coastal Preservation Area; whilst the North Devon side falls outside. A specific 'Coast and Estuary Policy' is proposed within the emerging Joint Local Plan for North Devon and Torridge, to help guide development to take account of the special qualities of the whole Estuary.
- Wind turbine developments on the elevated hills that form a distinctive rural setting to the estuary, particularly the large-scale development at
 Fullabrook. Skylines are also marked by overhead powerlines, particularly along the Great Bank/Toll road on Braunton Marsh and around Fremington and
 Yelland.
- Ongoing national demand for alternative sources of renewable energy production, including tidal energy. The strong tidal resource of the estuary may see particular interest from developers in future (e.g. barrage/lagoon/tidal stream devices) with potential impacts on the special landscape, seascape and ecological characteristics of the area.

- Sea level rise and coastal erosion as a result of climate change, potentially seeing a significant rise in the estuary's water levels and a consequential widening of its channels, with possible loss of habitats, coastal archaeology and flooding of settlements.
- Uncertainty over the impacts of managed realignment within the estuary currently the Shoreline Management Plan recommends 'managed realignment' across much of its length, although a 'hold the line' policy is recommended where assets are at risk, such as along existing defended sections at Yelland, Fremington, Braunton, Barnstaple and Bickington.
- Divisions in option, both expert and local, regarding the future of Crow Point and Neck a fast-eroding spit linking to Braunton Burrows. Ongoing debates include whether the feature should be left to fully breach, and if so, the impacts this might have on the landscape and its surrounding communities (e.g. storm surges travelling up the River Taw).



SCA 20: Northam Burrows and Westward Ho!



Click here to return to interactive overview map of the Seascape Character Areas (SCAs)



SCTs within the SCA: 4A Estuaries; 4E Extensive Intertidal Sands; 4F Dunes; 4I Rocky Foreshores; 4L Exposed Sandy Bays; 5B Coastal Undulating Farmland; 7 Main Cities and Towns.

This SCA covers the popular coastline and shallow sandy bay fronting Westward Ho!, including Northam Burrows, the Pebble Ridge and Westward Ho! beach. The SCA contains unique geomorphological and coastal features, including the Pebble Ridge, providing evidence of past dynamic coastal processes. The open landscape of naturalistic tones and textures provided by the dunes, sands and sea contrast with the nearby development of Westward Ho! which dominates the enclosing hill slopes to the south. The seascape affords expansive views across Bideford Bay, along the Hartland Coast and out to Lundy.

The coastal areas of the SCA forms part of the North Devon AONB, a small part is also within the Hartland Heritage Coast.



Key characteristics

Natural / physical influences

- Extensive intertidal sands subject to tidal inundation backed by a natural pebble ridge and flat expanses of grazed common marsh and sand dunes at Northam Burrows.
- Small area of **intertidal mudflats** at Skern fringed by salt marsh.
- Underlain by Carboniferous Culm Measures topped with tidal and alluvial clay, silt and sand, with exposed bedrock at the southern fringes where the sands grade into a rocky foreshore.
- SCA enclosed to the south by a low ancient fossilised sea cliff
 extending east from Kipling Tors (SCA 21), predominantly wooded to form
 a distinctive, highly visible backdrop to Westward Ho!.
- Unique geomorphology and coastal features, including the Pebble Ridge, a dynamic and transient coastal spit composed grey pebbles (6m high and 50m wide), exposed at low tide. Some believe the ridge was initially formed by the 1600s tsunami described by local historian Thomas Westcote.
- Geomorphology testament to both sea level rise, seen in the fossilised cliffs at Kipling Tors and the raised beach at Seafield, and sea level fall, in the Mesolithic sunken forest on the beach.
- Evidence of dynamic coastal processes; the marshland and sand dunes formed by sediment-rich tides within the estuary and severe Atlantic storms washing material onto the Pebble Ridge. Sandymere – a small brackish lake – appears behind the ridge in the winter months.
- Gently shelving seabed to a maximum water depth of 10m, overlain by mobile sand deposits derived from the Holocene epoch and fed by the adjacent Taw/Torridge Estuary.
- Northam Burrows nationally designated as a SSSI and part of the Buffer Zone of the North Devon Biosphere Reserve; the dune system and maritime grasslands supporting an enormous diversity of wildlife, including several hundred species of flowering plants.
- Waters within the wider Bideford to Foreland Point Recommended Marine Conservation Zone, including the habitats associated with the subtidal sands and tide-swept channels.
- **Strong tidal currents**, particularly to the north around the estuary, often making the coastal waters treacherous for vessels.
- Wide area of very shallow coastal waters drying at high water, also creating
 difficult navigational conditions into the estuary. Boats are confined to a narrow
 channel between drying sand banks.

Cultural and social influences (past and present)

- Diverse palaeoarchaeology, including the submerged ancient forest at Westward Ho! and prehistoric and Roman organic features preserved in anaerobic mud. Unidentified wrecks are visible on the beach at low tide.
- Grazing and other ancient rights relating to Northam Burrows and the ancient Manor of Northam extending back to medieval times.
 Potwalloping – where locals gather on the Burrows to put pebbles back on the ridge – is still celebrated today.
- Important 20th century military sites, including anti-tank defences and the former radar station at Northam Burrows (RAF Northam).
- Enclosing hill slopes to the south dominated by the resort of Westward Ho!, developed in the mid-c19th and named after Charles Kingsley's novel, which contributed to its popularity.
- Strong literary connections also with the poet and author Rudyard Kipling, who attended the United Services School from 1878-1882; his semi-autobiographical novel, "Stalky & Co.", inspired by his school days in and around Westward Ho!.
- Flood defences including groynes and a sea wall at Westward Ho!, as well as a former refuse tip between Skern and Northam Burrows; now an embankment faced with rock armour to protect it from turbulent waters of the Skern.
- **Distinctive historic feature of the "rockpool"**, a public maintained swimming pool created in the mid-19th century, situated in the west of the SCA. The remains of the 1870s **Westward Ho! pier** are also still visible.
- Low levels of commercial fishing within the sandy shallow waters, including for rays, sole and plaice. The storm beach at Westward Ho! is renowned for shoreline bass fishing.
- Range of recreational opportunities provided by the open access land of the Country Park, with the wide Blue Flag beach and waters popular for surfing, bathing and kite-boarding.
- Situated within Northam Burrows, the Royal North Devon Golf Course is one of the oldest courses in England, founded in 1864.
- Northam Burrows Country Park with visitor centre and ranger service (since the 1970s) providing open access opportunities, supplemented by a network of rights of way crossing the dunes and seafront. The SW Coast Path and Tarka Trail provide walking routes linking to the wider area.

Perceptual and aesthetic influences (continued over)

 Westerly aspect, with the intertidal sands, saltmarshes and sand dunes particularly open and exposed to the elements.

- **Distinctive sound of chattering pebbles** on Pebble Ridge as the waves wash over at high tide. A sense of danger and foreboding prevails during stormy conditions when the ridge is breached by powerful seas.
- Expansive views along the scenic AONB coastline, including to Hartland Point with its lighthouse in clear conditions, and framed by Baggy Point and the elevated Saunton Down to the north (with white hotel_{and ribbon} development).
- Long seaward views extending to Lundy, its distinctive form particularly prominent in evening shadow when the sun sets behind.
- Views from the sea defined by rows of white/colourwashed housing and large, modern seafront developments at Westward Ho!, with Appledore, Northam and the moving turbines of Fullabrook featuring behind.
- The 'Scary House' is an affectionately known local landmark featuring in views from Kipling Tors.
- Contrasts between the views of development and the naturalistic tones and textures provided by the dunes, sands and sea.
- Westward Ho! development and the colourful beach huts along Horizon View stand in contrast to the undeveloped Kipling Tors ridgeline and the remote undulating cliffs of the Abbotsham Coast (SCA 21) – both within the AONB.
- Popularity of the Country Park, golf course and Westward Ho! itself brings an influx of people, traffic and movement at weekends and in the holiday season.



Special qualities and key seascape sensitivities

The special qualities of this seascape that would be most sensitive to change include:

- Unique feature of Pebble Ridge and the extensive and highly popular long sandy Westward Ho! beach.
- Submerged ancient landscapes, including ancient forest at Westward Ho! and prehistoric and Roman organic features preserved in anaerobic mud.
- Wide open spaces with panoramic views across the estuary, along the Hartland Coast and out to Lundy.
- Qualities of wildness, remoteness and despite the close proximity to areas of modern development.
- Wide range of opportunities for recreation and enjoyment, including surfing, water sports, swimming, fishing and bathing.







Forces for change affecting seascape character and condition

Coastal land / marine resource management

- Overgrazing by commoners' livestock in the summer months on Northam Burrows leading to a decline in sward diversity in some locations; the area is also suffering from a spread of non-native and invasive species including Japanese knotweed, requiring ongoing clearance efforts. .
- Erosion of some paths and tracks across the Burrows, particularly those leading through to the adjacent popular beaches (including via lengths of the SW Coast Path and Tarka Trail).
- Risk of pollution from new developments behind and on the ridgeline of Westward Ho! with untreated sewage flowing onto Northam Burrows during storm conditions. However, Westward Ho!'s Blue Flag beach is largely attributed to the re-location of a coastal outflow pipe in SCA 21 (see relevant profile).
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Potential increases in shipping to/from the Bristol Channel leading to pollution and an increase in waste/litter washed in from the bay, as well as a greater risk of major pollution incidences.

Aquaculture and fishing

- Uncertainty surrounding future Marine Conservation Zone designation (the Bideford to Foreland Point recommended site is currently under consideration by Defra), and the impacts any future designation might have on fishing activity in the wider area.
- Uncertainty over the long-term economic viability of the local fishing fleets that use these waters including fishermen from Bideford, Appledore and Clovelly who are much valued as part of the community, local economy and heritage of the wider area.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism (continued on next page)

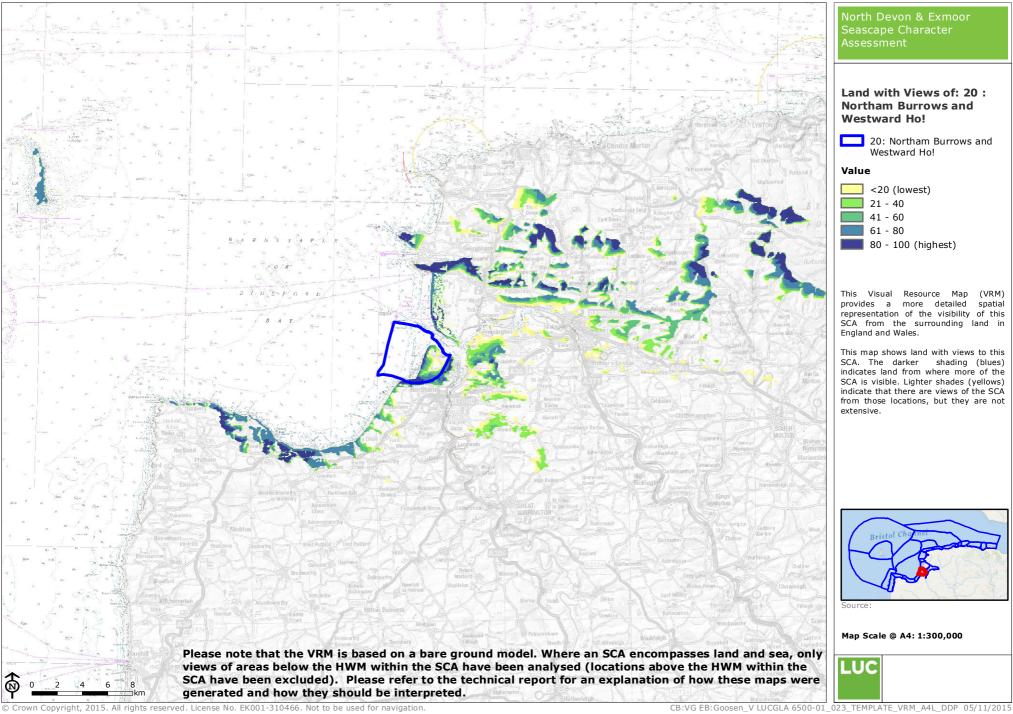
- Occasional conflicts between the various (and often high numbers of) coastal and water-based recreational users within the seascape.
- Popularity of Northam Burrows as a Country Park, with facilities including surfaced roads, car parks and signage giving it a suburban feel on the doorstep of extensive development at Northam, Appledore and Westward Ho!. Costs of maintaining vehicle access to the Country Park is a key issue.

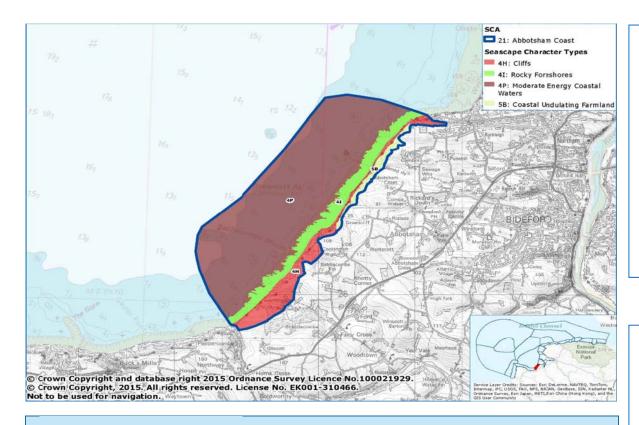
- Increasing popularity of UK-based holidays leading to the potential for higher visitor and access demand, particularly due to the close proximity of Westward Ho!. This could put impact further on the SCA's natural coastal and marine resources (including bird disturbance on the dunes) and lead to further development pressures.
- Levels of remoteness and tranquillity intermittently affected by the sounds of jet skis and motorboats. Concerns over wildlife disturbance by water-based users in the wider area are being addressed by a voluntary Code of Conduct developed and promoted by the North Devon Biosphere Reserve.

Other development pressures / impacts

- Views to urban development at Appledore and Westward Ho! impacting on perceptions of tranquillity, remoteness and dark night skies, particularly relating to the increasingly large modern buildings on the seafront and extending up the ridge. Such developments are already highly visible from out to sea, including from vessels travelling across Bideford Bay to Lundy (SCA 15).
- Vertical man—made structures prominent in open views along the coast and across the estuary, particularly the wind turbines at Fullabrook and the telecommunications mast on the ridge behind Westward Ho!.
- Ongoing national demand for alternative sources of renewable energy production, including offshore wind and tidal (stream devices and tidal lagoons). Although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward which could impact on the special qualities of this SCA, including its uninterrupted views to the key focal point of Lundy.

- Climate change, sea level rise and the increased strength and frequency of storm surges threatening coastal habitats and leading to more incidences of the Pebble Ridge being breached threatening coastal properties.
- Much of this coast is under a Shoreline Management Plan policy of 'managed realignment', allowing the natural realignment of Pebble Ridge. This is likely to lead to the loss of intertidal habitats through coastal squeeze, including sand dune habitats in the long term. Sections of the Tarka Trail and South West Coast Path may also need re-locating.
- A 'hold the line' policy is also in place along parts of the coast, to protect Westward Ho! against the increased risk of flooding and erosion, with a potential need to introduce new defences behind the Pebble Ridge. However in the long term sea level rise may lead to the narrowing or loss of the beach.
- Long term increasing flood risk and erosion could potentially compromise the former landfill site which poses a pollution and contamination risk.





SCTs within the SCA: 4H Cliffs; 4I Rocky Foreshores; 4P Moderate Energy Coastal Waters; 5B Coastal Undulating Farmland.

Located to the south of Westward Ho!, this undulating section of coastline comprises steep cliffs rising to over 90m in the south-west and dropping to a lower and more rounded profile in the north-east, backed by undulating coastal farmland. It includes the distinctive red outcrop of Permian Sandstone at Portledge cliffs, and coastal landforms including the rounded hog's back of Cockington Cliff, sharply-folded sandstone beds of Tut's Hole and the fossil cliff-line of Kipling Tors. Offshore the shallow seabed is covered by fine Holocene-derived sand sediments; constantly shifted by tidal movements and fed by the nearby Taw/Torridge Estuary, which supports a great diversity of fish species.

The SCA's coastal area forms part of the North Devon AONB and Hartland Heritage Coast.

Key characteristics

Natural / physical influences

- Undulating coastline with steep cliffs rising to over 90m in the south-west of
 the SCA, but dropping to a lower and more rounded profile in the north-east,
 backed by undulating coastal farmland.
- Carboniferous sandstone rock of the Bude and Crackington formations, including a nationally important 'Coal Measure' type sequence from Mermaid's Pool to Rowden Gut, outcropping along the coastline. The rocks continue offshore in the form of wave cut platforms.
- Prominent red outcrop of Permian Sandstone at Portledge cliffs, strongly
 visible from along the coast and out to sea appearing to glow when the sun is
 setting across the bay.
- Distinctive coastal landforms including the rounded hog's back of Cockington Cliff, sharply-folded sandstone beds of Tut's Hole (a striking feature from the sea), and the fossil cliff-line of Kipling Tors, rising steeply to frame the SCA in front of Westward Ho! (SCA 20).
- Pastoral and arable fields extending to and between the cliff tops in places, interspersed with SAC-designated maritime heathland, unimproved grasslands and inland occasional stands of sessile oak woodland support rare lichens.
- Shallow seabed (maximum depth 10m) covered by fine Holocene-derived sand sediments; constantly shifted by tidal movements and fed by the nearby Taw/Torridge Estuary (SCA 19).
- Characteristic fine pebble ridge at cliff bases, fronted by a wide rocky foreshore (wave cut platform), with beds trending seawards to form biogenetic reefs. Evidence of a raised beach is visible at Seafield. The sandy beach at Portledge is the only significant beach along this coast until Westward Ho!.
- Honeycomb worm (Sabellaria alveolata) reef found in the north-eastern coastal waters, lying within the wider Bideford to Foreland Point recommended Marine Conservation Zone.
- **Diverse fish species** including bass, smoothound, and sprat; the shallow, sandy coastal waters provide nursery areas for anglerfish, plaice, sand eels, sole, rays and whiting.
- Kelp beds, rocky reefs and rock pools providing further habitats for a range of fish and shellfish, including dogfish, wrasse, pollock, rockling, lobster, crabs, whelks and prawns.
- Feeding grounds and coastal habitats for sea birds, including cormorants, shags, gannets, black-headed gulls and fulmars.
- Relatively sheltered sea conditions owing to protection provided by the Clovelly and Hartland peninsula to prevailing south-westerlies.

- Characterised by 'Figure of Eight' tidal currents, with rough water near Rock
 Nose particularly when wind direction opposes the tide. Tidal range can be up to
 seven metres at springs, exposing the wide rocky foreshore at low tide.
 - Cultural and social influences (past and present)
- 18th/19th century limekilns, the best preserved example being at Greencliff, which utilised local Culm coal from the adjacent adit mine, forming a visible heritage feature from nearshore waters.
- Kipling Tors, named after the poet and author Rudyard Kipling, who attended school in Westward Ho!, features as a location in his novel, "Stalky & Co".
- Coastguard lookout on Rock Nose, built in response to the sinking of a steamer
 off Clovelly in 1909, forms part of an historic network of stations that used to
 safeguard the coast. Now a popular destination for walkers to take in the
 expansive views across the Bay to Lundy.
- Square tower of Northam Church, visible on the skyline above Westward Ho! (SCA 20) provides a distinctive coastal landmark and long-standing role as a navigational feature.
- Historic ship wrecks including Unity, sunk in 1922, now a navigational hazard off Rock Nose, and Eva V wrecked in 1981 near Greencliff.
- Prominent scar of the early 20th century Bideford-Westward Ho!-Appledore railway cutting on Kipling Tors, today forming a popular section of the SW Coast Path.
- Former Shebberton race course, where the first licensed female jockey raced in the 1920s, still discernible as a flattened grassy area on the coastline at Cornborough.
- **Outline of a former swimming pool nearby,** carved during the 1800s for use by the residents of the nearby Grade II Listed Abbotsham Court.
- Old sewage treatment waste pipe crossing the wave-cut platform at Rock Nose; now replaced by an outfall pipe running through the valley out to sea at Cornborough Cliff.
- Commercial lobster and crab potting, whelking and recreational angling (including from the foreshore); with frequent views to trawlers working in the wider bay (SCA 23).
- **The SW Coast Path crosses the cliff tops,** with access by foot afforded to the foreshore in several locations.]
- Popular walking routes along Kipling Tors, offering fine panoramic views across Northam Burrows, the Estuary, Braunton Burrows and Exmoor in the distance.
- Most of the south-western coast, along with Kipling Tors, **owned and managed by the National Trust**.
- Low-intensity board sports, sailing and scuba diving also take place in the coastal waters.

Rockpooling and picnicking are popular activities on the wide rocky foreshore
at low tide, especially at the more accessible beaches at Abbotsham Cliff and
Greencliff.

Perceptual and aesthetic influences

- **Gradual transition from a remote, rugged seascape** in the south-west to gentler, **more undulating and pastoral coastal scenery** where the cliffs drop to shore level in places. Here the rolling farmland almost appears to touch the sea.
- High levels of tranquillity with a general absence of development, in stark
 contrast to the bustling and brightly lit resort of Westward Ho! and built features
 beyond, including Fullabrook wind turbines, Saunton Sands Hotel and the linear
 development of housing below Saunton Down.
- **Panoramic views across Bideford Bay** framed by Hartland Point and its white lighthouse, with Lundy in the centre. Clovelly and Blackchurch Rock provide distinctive coastal markers in westerly views.
- Sweeping views north framed by the distinctive headlands of Baggy Point and Morte Point, with the golden sandy expanse of the estuary mouth (including Northam Burrows), Braunton Burrows and Saunton Sands contributing to varied textures and colours against the sea. Exmoor features in distant views from Kipling Tors.
- The single wind turbine at Greencliff Farm is a localised yet highly visible feature in local views from both coast and sea.
- Varying perceptual qualities according to the time of day, season and position of the sun the wide expanse of the bay's coastline lit up at different times of the day, creating an ever-changing scene.
- A pervading sense of calm and shelter broken when north and northwesterly storms sweep through the bay – creating a sense of danger and isolation as waves crash along the remote coastline.



Special qualities and key seascape sensitivities

The special qualities of this seascape that would be most sensitive to change include:

- Gentle, undulating coastline with flowing countryside extending down the cliffs.
- Nationally important coastal geology and distinctive coastal landforms the red sandstone cliffs at Portledge and Tut's Hole visible from out to sea.
- Wave cut platforms and pebbles on the shore supporting rich intertidal and marine communities as well as opportunities for rockpooling.
- Range of historic features tracing past land and sea uses, including ship wrecks, coastal lime kilns and the former Bideford to Westward Ho! railway cutting.
- Access and enjoyment opportunities both along the coast and in the waters, including walking the SW Coast Path, sailing, board sports, scuba diving and beach activities.
- High levels of peace and tranquillity; particularly marked given the close proximity of development at Westward Ho! and Northam.
- Spectacular open views, the Hartland coast to the west, Lundy in the centre and Baggy Point to the north.







Forces for change affecting seascape character and condition

Coastal land / marine resource management

- Post-war intensification of farming leading to field enlargement and a spread of intensive farmland backing the cliffs (fragmenting areas of unimproved and maritime grasslands).
- Cover crops for game (relating to the nearby estates) introducing new geometric patterns and textures of land cover into the coastal landscape some recent plantation blocks visible from the sea.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Old sewage treatment waste pipe crossing the wave-cut platform at Rock Nose; now replaced by a recent outfall pipe running through the valley out to sea at Cornborough Cliff. This work, completed in 2003, is one of the contributory factors in Westward Ho! now having a Blue Flag Beach (SCA 20).
- Potential increases in shipping in the wider Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.

Aquaculture and fishing

- Uncertainty over the long-term economic viability of the nearby fishing fleet at Clovelly (comprising three potters and one trawler), who are much valued as part of the community, local economy and heritage of the wider area.
- Unknown outcome of Marine Conservation Zone designation (the Bideford to Foreland Point recommended site is currently under consideration by Defra), including the impacts any future designation might have on fishing activity in the wider area.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon economy.
 This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

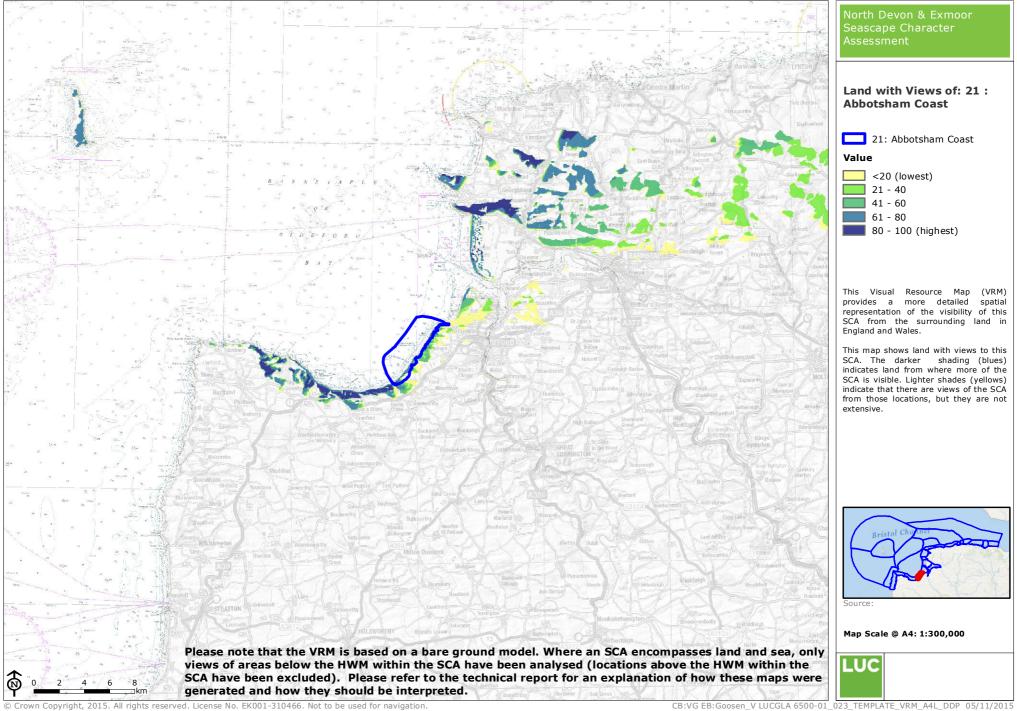
Access, recreation and tourism

• Increasing popularity of UK-based holidays leading to the potential for higher visitor and access demands, particularly due to the close proximity of Westward Ho!. This could put impact on the SCA's natural coastal and marine resources, lead to development pressures, and dilute the seascape's high levels of relative remoteness and tranquillity.

Other development pressures / impacts

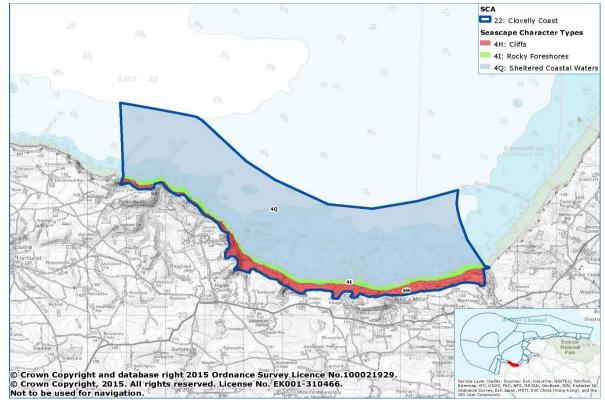
- Development pressure around Northam and the coastal fringes of Westward Ho!, with north-easterly views across the remote SCA dominated by shoreline and ridgeline development. The SCA's open aspect also allows views to more distant developed seascapes, including prominent linear development along the Saunton ridgeline.
- Vertical man—made structures prominent in open views along the coast and from the sea, particularly the wind turbines at Fullabrook, very obvious moving features to the north-east, and the telecommunications mast on the ridge behind Westward Ho!. The small single turbine at Greencliff Farm is also locally prominent.
- Decline in small farms, and amalgamation and intensification into bigger enterprises leading to farm expansion on the ridgelines, with the potential to impact visually on the seascape's rural skylines
- Ongoing national demand for alternative sources of renewable energy production, including offshore wind. In the previous proposals for the Atlantic Array, Abbotsham Cliff was the chosen onshore cable route which would have impacted on the undeveloped nature of this coast.

- Repeated landslides and unstable sections of cliff likely to increase in frequency and prevalence as a result of climate change and sea level rise. The Shoreline Management Plan cites a fast rate of erosion around Abbotsham in particular at up to one metre per year. A largely undefended coast, the policy stance is to continue allowing the coast to evolve naturally along much of its length.
- Coastal erosion and sea level rise likely to see the 'squeeze' of intertidal and coastal habitats such as the characteristic rocky foreshore and pockets of sandy beach. Increased rates of erosion may also put cliff-top lengths of the SW Coast Path at risk, as well as threaten archaeological and geological sites such as the limekiln at Greencliff and spectacular anticline at Tut's Hole.
- Impacts of climate change on valued remaining areas of maritime grassland and sessile oak woodland, with potential for increased growth rates accelerating the spread of scrub and trees into the open coastal landscape, along with an increased prevalence of pests and diseases potentially affecting native tree species.



SCA 22: Clovelly Coast

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)





SCTs within the SCA: 4H Cliffs; 4I Rocky Foreshore; 4Q Sheltered Coastal Waters.

Within the south of Bideford Bay, this is a north-facing coastline with a spectacular coastal geology including distinctive features such as Blackchurch Rock and the headland of Gallantry Bower. It comprises steep, rugged cliffs punctuated by small pebble beaches, combes and waterfalls plunging to the sea. It contains nationally and internationally designated sessile oak woodland, scrub and coastal heathland. This is a popular and well-visited stretch of coast, valued for the range of experiences it offers, its rich cultural legacy of ancient settlement, maritime trade, smuggling and traditional industries and features including well-preserved limekilns and historic designed landscapes. It is also characterised by high levels of tranquillity and a strong historic sense of place.

The SCA's coastal area forms part of the North Devon Coast AONB and the Hartland Heritage Coast.



Key characteristics

Natural / physical influences

- Rocky coastline with steep north-facing cliffs rising to a maximum of 150m, punctuated by small pebble beaches, combes and waterfalls plunging to the sea.
- Cliffs of much-folded Carboniferous sandstones and shales of the Crackington and Bude Formations, strata running east-west, parallel to the coast, making the cliffs prone to landslips.
- Striking geomorphological features, including the triangular sea arch of Blackchurch Rock, waterfalls at Buck's Mills and Beckland, and the distinctive headland of Gallantry Bower, highly visible from along the coast and out to sea.
- Shallow seabed shelving gently to around 10m, deepening to 20m in the west, formed of mudstone, sandstone and limestone. Sand and muddy sediments support shallow kelp beds.
- Areas of biogenic reef extending out from a rocky foreshore, interspersed by patches of sand fed by the changing tides.
- **Prominent rocky spit of The Gore** west of Clovelly; a hazard to navigation (marked on the 1795 charts), revealed at low tide. An ancient landslip; local legend names it 'Devil's Causeway' the Devil's shovel breaking before he reached Lundy. It provides natural shelter to Clovelly harbour.
- Cliffs cloaked in SSSI and SAC-designated sessile oak woodland. Exposure
 to moist Atlantic winds sustains old and rare lichen communities; fern-rich flora
 characterises the wooded combes, particularly at Bucks Mills.
- Home to important breeding colonies of seabirds, including cormorants, shags, gannets, black-headed gulls and fulmars. The shoreline provides feeding grounds for waders at low tide, including oyster catchers.
- Mobile sand and mud sediments, along with kelp beds, supporting varied fish species including bass, herring, mackerel, pollock and black bream. Crabs, lobsters and mussel beds colonise the rocky reefs.
- Seals, porpoises, basking sharks, dolphins and seals frequent the area, often sighted off Clovelly.
- **Comparatively sheltered**, protected from prevailing south-westerlies by the Hartland Peninsula. Clovelly is the only safe harbour between Appledore and Boscastle (Cornwall), drying out completely at low tide.

Cultural and social influences (past and present)

- Bronze Age bowl barrow at Gallantry Bower and Iron Age promontory forts at Peppercombe Castle, Bucks Mills and Windbury Head (the latter straddling SCA 24), occupying commanding cliff-top positions.
- Strong historic character of fishing and industrial trade at Clovelly and Buck's Mills, both Conservation Areas with a high concentration of Listed Buildings. Bollards formed by cannon barrels at the privately-owned village of

- Clovelly are said to originate from the Spanish Armada. Herrings (known as 'silver darlings') were particularly associated with Clovelly's success as a fishing port.
- Notorious smuggling area; 'Smugglers Cave' found east of Clovelly harbour. The legend of the Gregg family, the 'Clovelly cannibals' who supposedly lived in a cave, is thought to have been spread by smugglers to frighten people away.
- Buck's Mills home to the Braund Society, membership consisting of people associated with the surname Braund, once thought to originate from survivors of the Spanish Armada (now disproven). The 'King of Bucks Mills', Captain James Braund, built Kings Cottage in the 1830s.
- Nursery rhyme Old King Cole linked to Richard Cole, Lord of the Manor of Bucks, who built a quay at Buck's Mills in 1598. Outline of the former quay, eroded away by the sea, still visible at low tide near The Gore. Legend has it he was killed fighting pirates near Bucks Mills in 1615.
- Well-preserved 19th century limekilns at Mouthmill, Clovelly and an unusually large square example at Buck's Mills. The limestone, and in some cases coal, was imported by sea from South Wales.
- Strong cultural links between Buck's Mills and Lundy, the island supplying the
 corn for the local mill, and the village providing a labour force for Lundy's quarries
 following the 19th century decline of local herring shoals.
- Natural beauty inspired formal landscaping and building restoration by the Hamlyn Williams family of the Clovelly Estates in the 19th / early 20th centuries.
 Many formal walks with 'designed views' and viewpoints such as Hobby Drive, Deer Park and Gallantry Bower were laid out during this time.
- Until the mid 20th century, paddle steamers would bring visitors to Clovelly, landed at the harbour by small boat.
- **Fishing activity continues from Clovelly**, with a small fleet of crab/lobster potters, a trawler and recreational charter boats. The village hosts several annual maritime-related events including the Herring Festival and Lobster & Crab Festival.
- The South West Coast Path provides access across the cliff tops. Access to the foreshore largely restricted to Clovelly, Buck's Mills, Mouthmill and Peppercombe.
- Significant area of coastal land owned and managed by the National Trust; the Clovelly Estate owns the picturesque village of Clovelly and the surrounding land.
- Water and coast based recreational activities including climbing, kayaking (often launching from Buck's Mills), paddle boarding, rock pooling, crabbing and inshore fly-fishing. Clovelly attracts surfers when swells are high.
- Royal Yacht Association sailing routes crossing through, and a number of sightseeing and wildlife cruises pass by, often starting from Clovelly (including annual National Trust trips).

Perceptual and aesthetic influences

- Highly tranquil seascape with a strong sense of timelessness. Spectacular sunsets (often lighting up Lundy) and dark night skies characterise the seascape.
- Ever-changing light conditions and a strong maritime sense of place long provided artistic inspiration for many including Judith Ackland and Mary Stella Edwards. Their Buck's Mills studio cabin is now owned by the National Trust for hosting art projects.
- Other artistic connections include J.W.M. Turner, Rex Whistler, Albert Goodwin
 and local artist James Paterson. Clovelly's literary links include Charles Kingsley,
 and to a lesser extent Charles Dickens, Rudyard Kipling, Susan Coolidge and
 Winston Graham.
- Limited but significant glimpsed views through the woodlands, including to Lundy, and eastwards to development at Bideford, Westward Ho! and the northwest peninsula, including Morte Point and the bright white Saunton Sands Hotel.
- Turner's 1824 painting Clovelly Bay takes in the iconic view from Clovelly to Lundy, framed by Blackchurch Rock and the distinctive profile of Gallantry Bower.
- Grade II Listed summer house above Mouth Mill, visible from the sea, one
 example of several historic buildings located on the cliff edge to take in the
 sweeping views across Bideford Bay.
- An overriding sense of calm and relative safety prevails. These qualities change dramatically during northerly storms, serving as a reminder of the powerful force of the sea; waves pounding the cliffs and rocky shoreline.



Clovelly Bay by J. W. Turner (1824)



Modern-day view from a similar viewpoint at Buck's Mills

Special qualities and key seascape sensitivities

The special qualities of this seascape that would be most sensitive to change include:

- Spectacular coastal geology with highly recognisable features including Blackchurch Rock and the headland of Gallantry Bower.
- Ancient sessile oak coastal woodlands with old and rare lichen communities sustained by exposure to moist Atlantic winds.
- Varied seabed habitats supporting a range of fish species and providing feeding grounds for colonies of seabirds and visiting cetaceans.
- Rich cultural legacy of ancient settlement, maritime trade, smuggling and traditional industries; features including well-preserved limekilns and historic designed coastal parkland.
- Traditional historic ports of Bucks Mills and Clovelly the latter a working harbour still home to a small fishing fleet.
- Wide range of opportunities to experience the seascape both at sea and on land including taking in iconic views from the SW Coast Path.
- High levels of tranquillity and a strong historic sense of place with unfolding, ever-changing glimpsed views along the coast, Bideford Bay and out to Lundy.







Forces for change affecting seascape character and condition

Coastal land / marine resource management

- Ongoing management of the cliffs' characteristic woodland cover by the National Trust and private estates, tackling issues such as a spread of non-native species (including rhododendron) and a long-term decline in traditional management practices.
- Anecdotal evidence of a significant decline in fish stocks (due to overfishing) within the surrounding waters particularly the large shoals of mackerel which used to be a regular sight and key to the character of the local seas.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Potential increases in shipping in the wider Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.

Aquaculture and fishing

- Uncertainty over the long-term economic viability of the small fishing fleet at Clovelly (now comprising three potters and one trawler a significant decline over the last few decades), who are much valued as part of the community, local economy and heritage of the wider area.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon economy.
 This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism

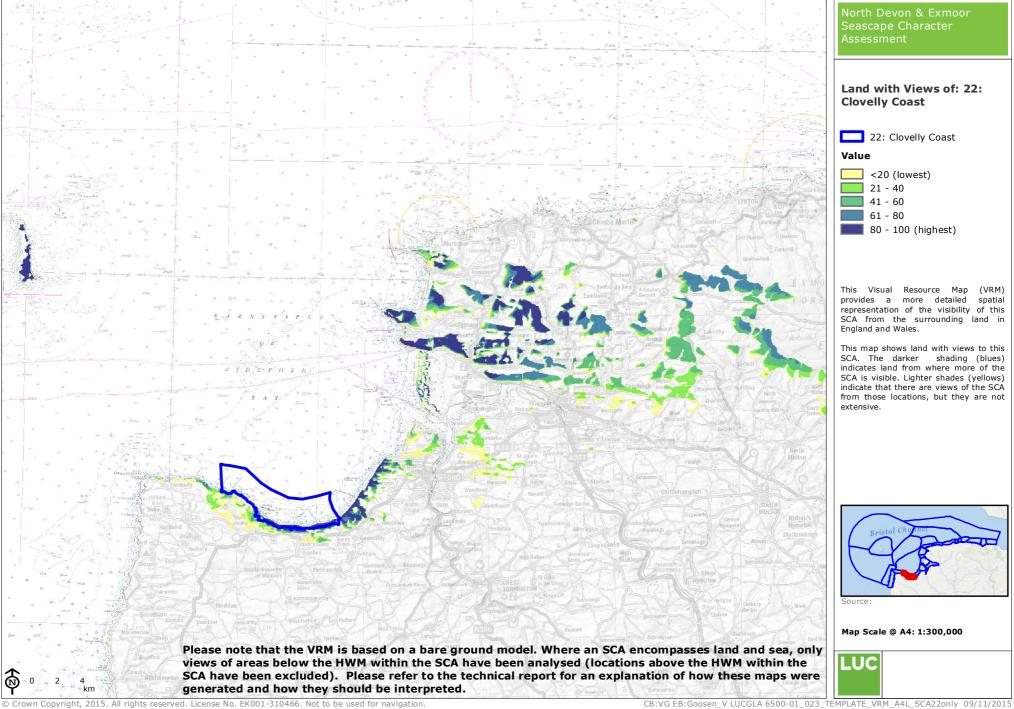
• Increasing popularity of UK-based holidays leading to the potential for higher visitor and access demands (the historic village of Clovelly receives around 300,000 visitors per year). This could put impact on the SCA's natural coastal and marine resources, lead to development pressures, and dilute the seascape's high levels of relative remoteness and tranquillity.

Other development pressures / impacts (continued over the page)

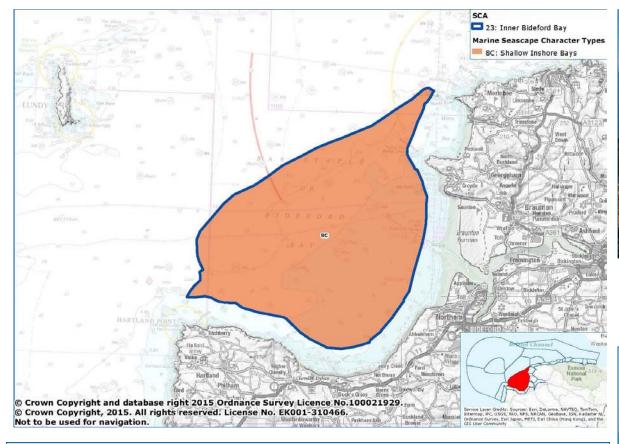
- Views to developed seascapes across Bideford Bay, including Westward Ho!, Northam, the Saunton ridgeline and the moving turbines of Fullabrook wind farm; diluting levels of remoteness and the historic sense of place associated with this SCA.
- Decline in small farms, and amalgamation and intensification into bigger enterprises leading to farm expansion on the ridgelines, with the potential to impact visually on the seascape's rural skylines (e.g. Beckland Farm on the Hartland Plateau to the west).

- Small-scale individual wind turbines behind the coast featuring in views (including from the sea); interrupting the characteristically open, rural skylines above the naturalistic wooded cliffs.
- Ongoing national demand for alternative sources of renewable energy production, including offshore wind and tidal energy (tidal stream devices or tidal lagoons). Any future proposals harnessing the strong tidal flows associated with nearby SCAs (particularly SCA 26), may be visible from this SCA, interrupting its characteristically open, undeveloped views to Lundy.

- Landslides and unstable sections of cliff likely to increase in frequency and prevalence as a result of climate change and sea level rise. The Shoreline Management Plan describes the coastline as slowly eroding, at a rate of around ten metres over the next 50 years. A largely undefended coast, the policy stance is to continue allowing the coast to evolve naturally along much of its length, with defences maintained where they exist (e.g. at Clovelly).
- Recent landslides and storm damage at Buck's Mills particularly vulnerable due to its position on the 'Sticklepath fault' with rising sea levels and increased frequency/severity of storm events combined with seaward earth movements. Most recently seeing the collapse of the sea wall and loss of the slipway in January 2014; repairs undertaken through funding from Torridge District Council's Coastal Communities fund with support from the North Devon Fisheries Local Action Group. Although the Shoreline Management Policy does not include defensive work at the village, its importance as an access point to the sea (with around 40,000 visitors per year) is locally recognised.
- Coastal erosion and sea level rise likely to see the 'squeeze' of intertidal and coastal habitats such as the ancient oak woodlands, rocky foreshores and pockets of sandy beach. Increased rates of erosion may also threaten archaeological and geomorphological features such as coastal lime kilns, promontory forts (including Windbury Head; already eroded) and the distinctive feature of Black Church Rock.
- Change in woodland / tree species composition as new pests/diseases spread (particularly Phytopthora pathogens) and species intolerant of water level extremes die back.
- Impacts of climate change on characteristic habitats and tree distribution (potentially increased growth rates, accelerating the spread of scrub and trees onto open coastal heath and heritage assets), including an increased prevalence of pests and diseases.



SCA 23: Inner Bideford Bay



Click here to return to interactive overview map of the Seascape Character Areas (SCAs)



SCTs within the SCA: 8C Shallow Inshore Bays

This SCA comprises the sheltered inner waters of Bideford Bay, linking the headlands of Morte Point and Hartland Point. Seascape character is strongly influenced by visual and cultural links to the sweeping coastline surrounding the bay, with its complex and varied forms. The sheltered, sandy seabed supports rich commercial fisheries and attracts seabirds and cetaceans. Ship wrecks on the sea floor are testament to a long history of maritime trade and transport. The open bay is defined by its panoramic, uninterrupted views across the bay and out to the open sea - featuring Lundy and distant glimpses of the Welsh coast.

Apart from the Taw/Torridge Estuary, all of the nearest coast is within the North Devon AONB and defined as Heritage Coast.



Natural / physical influences

- A large area of open water encompassing the inner part of Bideford Bay, extending approximately two kilometres offshore from the coast at its nearest point.
- Sheltered by the shape of the bay and position of Hartland Point buffering the prevailing south-westerly weather conditions.
- Water depth ranges from a minimum of 10 metres to the east to an average of 20 metres to the west, with deeper waters present to the north around Baggy Point, where the depth reaches 30 metres.
- Moderate tidal streams, reaching one knot at springs around Bideford Bar, although the outgoing current from the Estuary, when opposed by strong westerly winds, causes a high seas in this area.
- Seabed underlain by Carboniferous mudstones and sandstones, topped by dynamic sand and mud sediments.
- Sand and muddy substrates providing important habitats for commercial fish species, including plaice, bass, sole, rays, mackerel, congers and codling – with rocky areas supporting crab and lobster.
- Feeding seabirds including diving shearwaters and gannets creating naturalistic movement within the seascape.
- Aquatic mammals, including harbour porpoises, grey seals and dolphins (and occasionally orca) can often be sighted in the waters.
- The entrance to the buoyed channel of the Taw-Torridge Estuary marked by Bideford Fairway Bell. Seafarers are advised to only approach the Bideford Bar two and a half hours before high water due to drying of the channel.
- Baggy Leap buoy marks out a rocky shoal just off Baggy Point in the north of the area, and further buoys mark Bideford Bay and the entrance to the Taw-Torridge Estuary.
- The more distant lighthouses at Bull and Hartland Points provide orientation both day and night.

Cultural and social influences (past and present)

- Long history of maritime trade and exchange of materials between Bristol
 Channel ports, Wales and worldwide including the timber trade between Bideford
 and Newfoundland.
- Small number of wrecks lying within the waters, including the British Steamship, the Thistlemor, sunk in 1909 during a violent gale whilst carrying a large cargo of coal.

- The Thistlemor, Hodd and other shipwreck sites are popular destinations for scuba diving and chartered fishing trips.
- **Pilot boarding area near Bideford Bar** for ships entering the Taw/Torridge Estuary (SCA 19) to guide them through the confused seas of the bar and the hazardous navigation channel of the estuary
- SCA used for low-intensity commercial potting (mostly for lobster), as well as a key trawling ground for the North Devon fleet, mostly targeting plaice and ray. The waters can also attract trawlers from the continent.
- Recreational boat charters also visit these waters for sightseeing and fishing, with local operators based at Bideford, Appledore and Clovelly.
- Atlantic West and Western Europe submarine cables cross the area, with a landing station at Saunton.
- Royal Yacht Association sailing routes crossing through this SCA and the wider bay - the nearest club being Instow within the Taw-Torridge Estuary (SCA 19).
- **Sightseeing cruises** passing through the waters, including the *MS Oldenburg* and the historic *Waverley* paddle steamer and *MV Balmoral*, taking passengers between Ilfracombe, Bideford and Lundy.

- Perceptual qualities varying according to prevailing weather conditions the pervading sense of shelter and calm rapidly shattered in north or north-easterly gales.
- High levels of tranquillity, remoteness and dark night skies, contrasting with the busy nearby coastal settlements and developed seascapes around Woolacombe, Croyde and Westward Ho!.
- Panoramic views, discernible landmarks including Morte and Baggy Points, the sandy beaches and dunes at Woolacombe, Croyde and Saunton, and the Hartland peninsula – including the red cliffs at Portledge and the triangular sea arch of Black Church Rock.
- Lundy's distinctive long, low profile forming a characterful feature in the west (including its old lighthouse, church tower and two active lighthouses) with its open Atlantic backdrop.
- Fullabrook wind turbines, the white Saunton Sands Hotel and the linear development of housing below Saunton Down are also prominent developed features in views, contrasting with the more remote characteristics of this SCA.
- **Far-reaching views** afforded from the north of the SCA to the Welsh coast (Gower AONB and Pembrokeshire Coast National Park).

The special qualities of this seascape that would be most sensitive to development-led change include:

- Open expanse of sea forming a naturalistic maritime setting to the surrounding coast.
- Important fishing grounds, supporting the traditional economies and heritage of North Devon ports and harbours.
- Long history of maritime trade evidenced by a number of ship wrecks, and views to Hartland Point lighthouse.
- Excellent opportunities for seabird and cetacean spotting, including diving gannets, shearwaters and dolphins.
- Panoramic views across the full sweep of the Bideford Bay AONB coast; colours, textures and movements defining the seascape setting. Uninterrupted distant views to Gower and Pembrokeshire.
- Spectacular sunsets; the sun setting behind Lundy, emphasising its distinctive profile which characterises views across the bay.







Marine resource management

- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities, offshore development, and climate change).
- Potential increases in shipping in the wider Bristol Channel leading to pollution and an increase in waste/litter washed up on the surrounding coastlines, as well as a greater risk of major pollution incidences.
- Tighter fishing restrictions in other parts of North Devon and the Bristol Channel could lead to greater pressures on the fish stocks found within this SCA.

Aquaculture and fishing

- Unknown outcome of Marine Conservation Zone designation for coastal waters adjacent to the bay, including the impacts any future designation might have on fishing activity in the wider area. Some edges of the proposed sites extend into the nearshore waters of this SCA.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.
- Insecure economic viability for the commercial fishing fleets using these waters, who are much valued as part of the community, local economy and heritage of the wider area.

Access, recreation and tourism

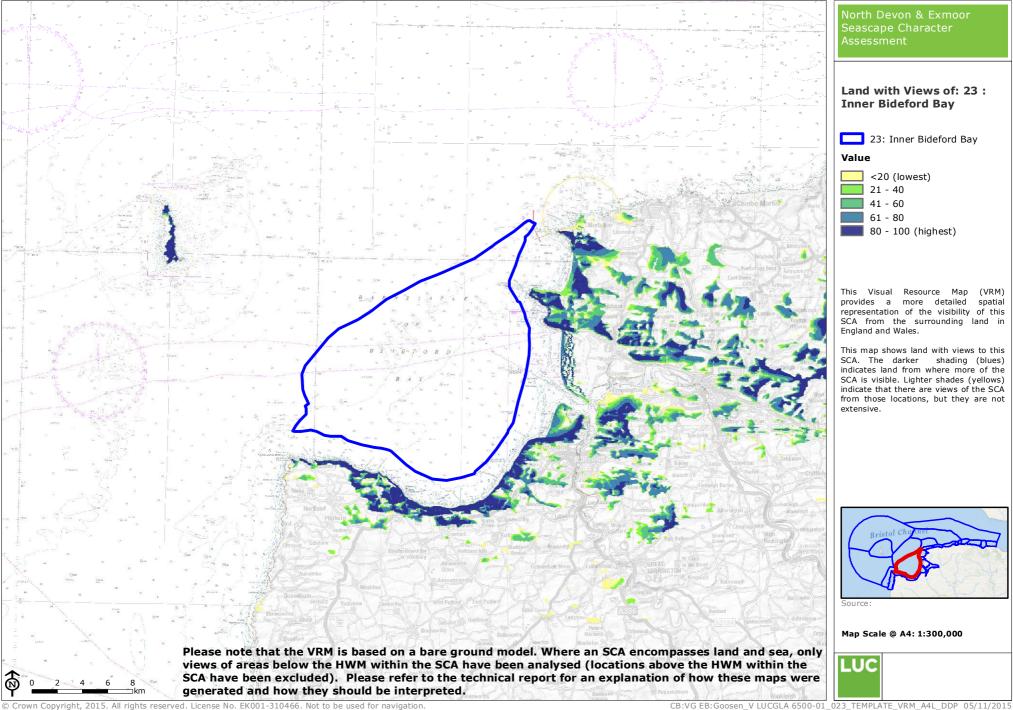
• Increase in the number, size and frequency of maritime transport passing through or close to these waters, including charter trips and cruises connecting Ilfracombe, Bideford and Lundy, potentially impacting on the seascape's important relative levels of tranquillity.

Other development pressures / impacts

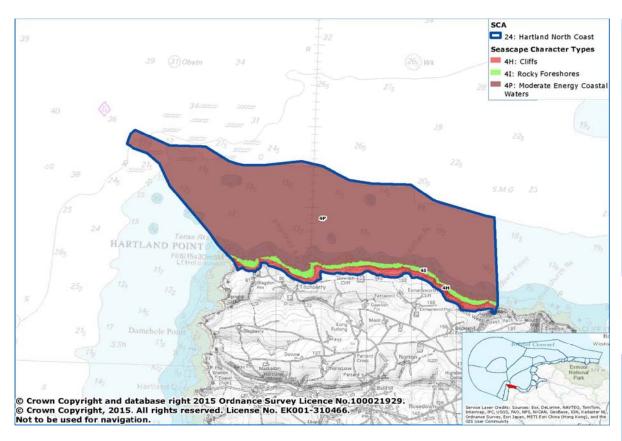
- Any new coastal developments could be prominent in the open, expansive views offered from this SCA. Development along the North Devon coast and its elevated hill summits already defines many views from this seascape, including Fullabrook wind farm.
- Increased future demand for aggregates extraction potentially leading to sites within this SCA being explored for dredging (currently none of the SCA is licenced for this activity).
- Ongoing national demand for alternative sources of renewable energy production, including offshore wind and tidal energy. Although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward which could impact on the remote character of this seascape and its unbroken ocean views to Lundy.

Natural processes and climate change

• Increased frequency of storm surges and sea level rise as a result of climate change, accelerating the shifting nature of the sand and mud sediments within the SCA; disrupting sediment flow/load within the waters; and putting coastal communities at greater risk of coastal flooding, erosion and storm damage.



SCA 24: Hartland North Coast

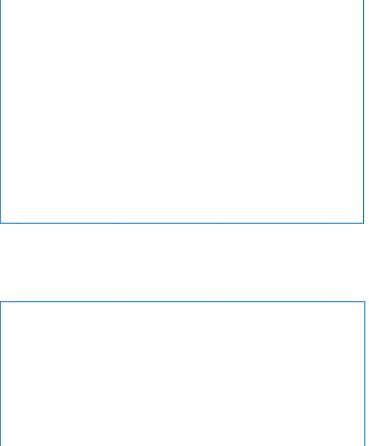


SCTs within the SCA: 4H Cliffs; 4I Rocky Foreshore; 4P Moderate Energy Coastal Waters.

Encompassing the north-facing section of the Hartland promontory, this is Torridge's 'hidden coast', with the rugged cliffs and their twisting and Iy only visible from the sea. It comprises flat-topped, steeply-sloping cliffs of sandstones faulted into zigzags backed by a flat, elevated coastal plateau. Offshore, the waters extend out to approximately 4km from the coast and the seabed is composed of moderate energy fine sand sediments. The break between the calm conditions of this SCA and the white water, breaking waves and 'confused seas' of Hartland Race are often visible on the sea surface. Breathtaking views are from headlands across Bideford Bay and the SCA frames many iconic views from the Bideford Bay coast, vessels crossing it, and from Lundy.

The SCA's coastal area forms part of the North Devon AONB and the Hartland Heritage Coast.

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)



Natural / physical influences

- Flat-topped, steeply-sloping cliffs rising to 142m AOD at Windbury Head, featuring numerous coastal landslips creating an undulating cliff line. The coast is backed by a flat, elevated coastal plateau.
- Cliffs formed from Carboniferous sandstone of the Bude formation, dramatic strata folded and faulted into ziq-zaqs.
- Distinctive triangular form of Chapman Rock and Long Rock off Shipload Bay, used as navigational features, often viewed in conjunction with the similar Blackchurch Rock to the east (SCA 22).
- Rich mosaic of internationally and nationally designated maritime grassland, heath and scrub along the cliffs. Characteristic thick scrub and broadleaved woodland cover on the steep cliff sides (contrasting with the bare cliffs of SCA 25), with gaps where recent landslips have occurred.
- Gently shelving seabed reaching a maximum water depth of 20m, overlain
 by moderate energy fine sand sediments derived from the Holocene epoch shaped
 by sea movements. Rocky reefs lie parallel to the coast.
- Sand brought in and out by storms present intermittently along the
 otherwise rocky foreshore; Shipload Bay provides the only significant area of
 sandy beach in the SCA.
- Peregrine falcons, kestrels and fulmars breeding on the cliffs near Shipload Bay. Waters off Hartland Point used as feeding grounds by red-throated divers.
- Spider crabs, edible crabs and lobsters found along the exposed or rocky shorelines. Fish species populating the coastal waters include bass, sole, plaice, black bream and sharks.
- **Grey seals regularly visit Shipload Bay,** whilst dolphins can be spotted further offshore. Porpoises and sunfish can also often be viewed from Windbury Head.
- Hartland Point provides shelter from prevailing westerlies brought in by the Atlantic; waves are refracted around the Point, losing some of their power.
- Break between the calm conditions of this SCA and the white water, breaking
 waves and 'confused seas' of Hartland Race (SCAs 25 and 26) often visible on the
 sea surface. In winter storms the surf created by the Race can extend for a
 mile offshore.

Cultural and social influences (past and present)

- Iron Age promontory fort at Windbury Head, designated as a Scheduled Monument and one of the few places along this coastline offering commanding views across Bideford Bay and the Abbotsham coast (SCA 21).
- The generally calm conditions of the seas, as well as the absence of any
 current or former harbours or quays, are reflected in the absence of any recorded
 ship wrecks.

- **Aptly named Shipload Bay associated with smuggling**, the former donkey path up the cliffs (now washed away) used to transport contraband. Caves between here and Clovelly (SCA 22) were used by smugglers for storage.
- **Unusually dry coastal farmland east of Hartland Point** suitable for cereal cultivation possibly reflected in the nearby place name Barley Bay. A medieval farmstead and 18th Century malthouse is located at East Titchberry.
- **Strip cultivation terraces,** possibly also of medieval origin, lie on the north-facing cliff-top field at Gawlish Cliff further demonstrating past agricultural activity.
- White golf-ball shaped radar dome standing on the site of the original WWII RAF radar station, which was established in 1940 and closed in 1987. It forms a highly visible coastal landmark from long distances.
- Plaque at the top of Beckland Cliffs commemorating the loss of a WWII
 Wellington bomber and its crew, which crashed into the cliffs in 1942. The
 engine is now in Hartland Museum.
- SW Coast Path provides access to the cliff tops, but views out to sea often
 restricted by vegetation and landform. Previous stepped access to Shipload Bay
 recently washed away in a storm, formerly the only access point to the foreshore.
- Most of the coastline, from Shipload Bay eastwards, owned and managed by the National Trust. Sightseeing boat trips along this coast are organised by the Trust in the summer months.
- Low levels of water-based use due to lack of shoreline access; fishing charters from Clovelly use these waters, as do kayakers exploring the coastal waters occasionally launching from Buck's Mills (SCA 22).
- Trawling for species including ray, sole and plaice taking place in the wider Bideford Bay, the occasional vessel featuring in views. Lobster and crab potting occurs within the SCA's rocky coastal waters.

- Remote and wild, with windswept headlands particularly in northerly weather, but comparatively a much more sheltered, tranquil and vegetated seascape than the Atlantic-facing coast to the west (SCA 25).
- Dramatic, undeveloped SCA framing views from across Bideford Bay; including from vessels travelling to and from Lundy. A key local landmark; Hartland Point lighthouse (SCA 25) disappears from coastal views east of Chapman Rock, notappearing again until the fringes of Westward Ho! (SCA 21).
- Foreshore and coastal views from cliffs generally restricted due to their plateau-top topography and often dense vegetation cover – particularly the section between Eldern Point and Windbury Head.
- Elevated headlands at Windbury Head, Eldern Point and West Titchberry
 Cliff providing sweeping vistas across Bideford Bay towards the estuary and
 Saunton Sands (including the white Saunton Sands hotel), as well as to Lundy and
 the Welsh coast beyond.

- Views from the high coastal plateau behind feature the outer waters of the SCA, with the bottom of Lundy looming on the horizon. Lundy often appears to be 'floating' at an equivalent elevation to the coast – its church tower and landing beach visible in clear conditions.
- The open, largely undeveloped plateau skyline of the SCA interrupted by **large agricultural buildings**, in particular at Beckland Farm, highly visible on the cliff edge from land and in views from the sea of Bideford Bay.







The special qualities of this seascape that would be most sensitive to change include:

- Torridge's 'hidden coast', the rugged cliffs with their twisting and folded strata mostly only visible from the sea.
- Past and recent landslips clothed in thick scrub or woodland, creating a strongly undulating and indented coast.
- Varied marine life, including grey seals making regular visits to Shipload Bay, and commercially important fish, lobster and crab populations.
- Ancient Iron Age promontory fort at Windbury Head, evidence for medieval farming and WWII associations, and the landmark 'golf ball' radar dome.
- Coastal walks affording breathtaking views from headlands across the full sweep of Bideford Bay and north to the 'elevated' end-on form of Lundy.
- Seascape itself frames many iconic views from the full stretch of the Bideford Bay coast, from vessels crossing through the bay, and from Lundy.
- Remote, windswept and quiet but more trees and shelter contrasting with the wild coast and seas around Hartland Point.







Coastal land / marine resource management

- Post-war intensification of agriculture spurred on by CAP-related subsidies in the 1970s, leading to field enlargement and a spread of intensive arable cultivation along some farmland backing the cliffs.
- Continuing efforts required to manage the open heathland and maritime grassland habitats, including through grazing, to reduce the encroachment of bracken, gorse and secondary woodland such as birch. Important views across the bay and to Lundy can be obscured by tall vegetation.
- Anecdotal evidence of a significant decline in fish stocks (due to overfishing) within the surrounding waters particularly the large shoals of mackerel
 which used to be a regular sight and key to the character of the local seas.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Potential increases in shipping in the wider Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.

Aquaculture and fishing

- Uncertainty over the long-term economic viability of the nearby small fishing fleet at Clovelly (three potters and one trawler), who are much valued as part of the community, local economy and heritage of the wider area.
- Unknown outcome of Marine Conservation Zone designation (including whether the recommended Hartland to Tintagel site is extended to include waters within this SCA), such as the impacts any future designation might have on fishing activity in the wider area.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon economy.
 This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism

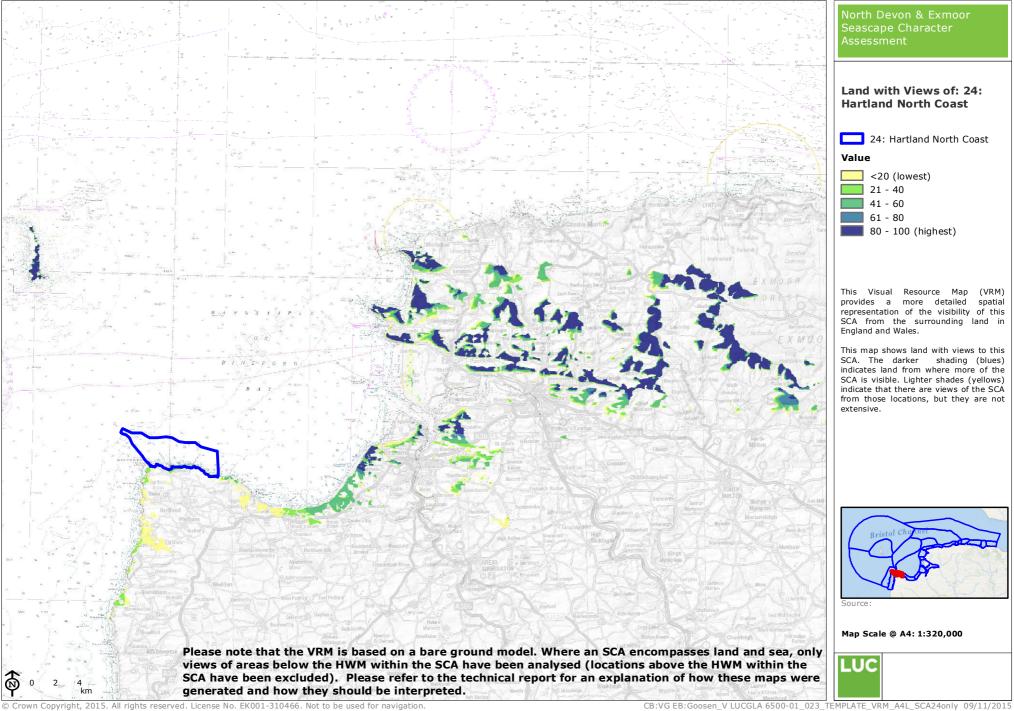
• Coastal erosion leading to loss of the only formal access point to the foreshore (at Shipload Bay) – unlikely to be reinstated due to ongoing and increasing levels of erosion (due to climate change), as well as funding limitations.

Other development pressures / impacts

- Decline in small farms, and amalgamation and intensification into bigger enterprises leading to farm expansion on the plateau behind, impacting on the characteristically open, flat and undeveloped skylines (e.g. Beckland Farm).
- Cumulative visual effect of both domestic turbines (e.g. the 20m turbine at Cheristow) and larger developments outside the AONB but visible from the coast– also impacting on characteristically open, rural skylines.
- Sounds from the Lundy helicopter periodically impacting on levels of tranquillity, although these are low in frequency and duration (and key to providing year-round access opportunities to the island) therefore not seen as a major concern.
- Views to developed seascapes across Bideford Bay, including Westward Ho!, Northam, the Saunton ridgeline, caravans/chalets above Woolacombe and the moving turbines of Fullabrook wind farm; diluting the sense of remoteness associated with this SCA.
- Ongoing national demand for alternative sources of renewable energy production, including offshore wind, wave or tidal energy (tidal stream devices or tidal lagoons). Any future proposals harnessing the strong wave energy or tidal flows associated with SCAs 25 and 26 could be visible from this SCA.

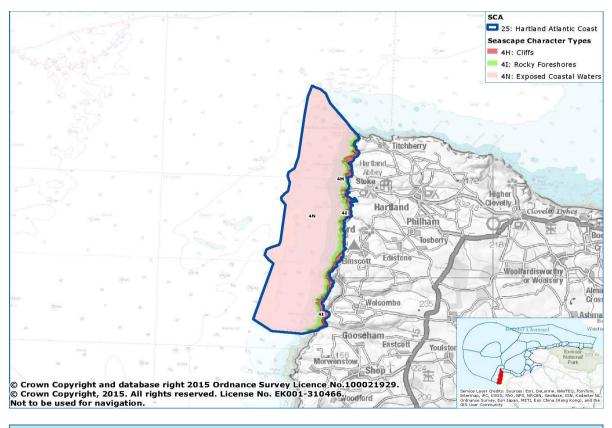
Natural processes and climate change

- Landslides and unstable sections of cliff likely to increase in frequency and prevalence as a result of climate change and sea level rise. The Shoreline Management Plan describes the coastline as slowly eroding, at a rate of around ten metres over the next 50 years. A largely undefended coast, the policy stance is to continue allowing the coast to evolve naturally along much of its length.
- Coastal erosion and sea level rise likely to see the 'squeeze' of intertidal and coastal habitats such as the characteristic rocky foreshore and pockets of sandy beach. Increased rates of erosion may also put cliff-top lengths of the SW Coast Path at risk, as well as threaten archaeological and geomorphological features such as Windbury Head (already eroded) and the distinctive features of Chapman and Long Rocks.
- Impacts of climate change on characteristic habitats and tree distribution (potentially increased growth rates, accelerating the spread of scrub and trees onto open coastal heath and heritage assets), including an increased prevalence of pests and diseases.



SCA 25: Hartland Atlantic Coast

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)





SCTs within the SCA: 4H Cliffs; 4I Rocky Foreshore; 4N Exposed Coastal Waters.

Extending across the east-facing section of the Hartland promontory, this is the western-most SCA within the study area. This is an exposed, wild and rugged coastline, where ancient folding and erosion leading to many large, visually distinctive geomorphological features, vertical or steeply-sloping high jagged cliffs backed by a flat elevated coastal plateau. The cliff bases are characterised by extensive wave-cut platforms and jagged reefs which extending out from Hartland Point and together with submerged pinnacles create hazards to navigation. Crashing waves, swirling white water and foam characterise the sea surface. The area is rich in coastal and marine wildlife as well as cultural associations with smuggling and shipwrecks. Views extend westwards across the Atlantic ocean and there is strong intervisibility with adjacent seascapes, including North Cornwall (as far as Padstow) and to Lundy to the north- west.

The SCA's coastal area forms part of the North Devon Coast AONB and the Hartland Heritage Coast.



Natural / physical influences

- **Flat-topped, vertical or steeply-sloping jagged cliffs**, rising to 150m at Embury Beacon and backed by a flat elevated coastal plateau. Cliff bases characterised by extensive wave-cut platforms and jagged reefs.
- Carboniferous Culm rock formations of sandstone and shale, folded and faulted into vertical zig-zag strata displayed in the cliffs. Geological sites of national and international importance at Hartland Point, Hartland Quay and Welcombe Mouth.
- Cliffs punctuated by steep combes, landslips, and dry and hanging valleys
 indicating ancient water capture for example at Smoothlands Valley and near St
 Catherine's Tor. Waterfalls plunging down to the sea, notably at Speke's Mill
 Mouth.
- Rugged coastline, ancient folding and erosion leading to many large, visually distinctive geomorphological features, including the triangular headland at Damehole Point, the vertical Cow and Calf, and Gull Rock or 'the Sleeping Giant' near Nabor Point.
- Gently shelving seabed reaching a maximum water depth of 20m, underlain
 by Devonian and Carboniferous mudstone, sandstone and limestones. A veneer of
 sand and mud sediments is exposed to a high energy water environment.
- Reefs, submerged pinnacles and associated overfalls extending out from Hartland Point; dangers marked by the Hartland Point lighthouse (1874).
- Coastal habitats of national and international importance (designated as SAC), including mosaics of maritime grassland, heath and scrub. Vegetation largely absent from the cliff faces due to exposure.
- Seabirds including gannets, cormorants and shearwaters gathering on rock outcrops and feeding from the coastal waters; red-throated divers are associated with the waters off Hartland Point. Chough, previously extinct here in the early 1900s, are occasional visitors.
- Varied fish species including mackerel, bass, pollock, black bream and sharks. A sprat spawning area is found west of Hartland Point.
- Majority within the Hartland Point to Tintagel Recommended Marine
 Conservation Zone, with areas of honeycomb worm reefs, pink sea fan corals,
 fragile sponges and mussel beds. The site's reef-building tubeworm populations are
 considered to be among the finest in Britain.
- Seals, dolphins and porpoises frequenting Hartland Point, with porbeagle sharks also sometimes spotted.
- Spider crabs, edible crabs and lobsters found along the exposed or rocky shorelines. Sand brought in and out by storms present intermittently along the otherwise rocky foreshore.

Highly exposed, facing the open Atlantic Ocean. Notorious tidal race off
Hartland Point, producing visibly 'confused seas' when wind direction opposes the
tide – surf running a mile offshore in winter storms.

Cultural and social influences (past and present)

- Embury Beacon Iron Age promontory fort situated on a heavily eroding clifftop, designated as a Scheduled Monument and offering commanding views across the Atlantic.
- Known as the 'Iron Coast', referencing the area's many shipwrecks. Hartland
 Point is thought to have been known by the Romans as 'the promontory of
 Hercules'.
- Wreck of the Johanna, sunk in 1982, still visible below Blagdon Cliffs, and the Green Ranger, wrecked in 1962, seen to the south of Longpeak.
- A memorial plaque at Hartland Point remembers the loss of the Hospital Ship Glenart Castle, torpedoed 20 miles off the coast in World War I.
- Area also infamous for smuggling, stories retold at the Shipwreck & Smuggling
 Museum. The Pleasure House Folly above Hartland Quay thought to have been
 used as a smuggling look-out tower.
- Local produce including corn and malt exported from Hartland Quay in the 16th to 19th centuries; coal and lime also imported from Wales to the quay. The coast's industrial past is also evidenced at Blackpool Mill and Speke's Mill.
- The remains of Hartland Quay, abandoned after being inundated in the 1890s, are today a popular visitor destination – including "The Wrecker's Retreat" traditional smugglers' inn within the Hartland Quay Hotel.
- Low levels of commercial and recreational fishing activity owing to the exposed and often dangerous seas, including charters from Clovelly and Bude. Lobster/crab potting takes place within the rocky waters.
- South West Coast Path mainly crosses the cliff tops, with access to the foreshore
 at Blegberry, Blackpool Mill, Hartland Quay, Welcombe Mouth, Speke's Mill Mouth
 and Marsland Mouth.
- National Trust owned and managed coastline from Welcombe Mouth to South Hole, promoting further opportunities for access and enjoyment of the seascape.
- Other activities including climbing, coasteering, swimming off Hartland Quay, rock-pooling, crabbing and geology study. Surfing takes place at Speke's Mill, Welcombe Mouth and Marsland Mouth.

- An exposed, wild and dramatic seascape, with levels of remoteness emphasised by a lack of trees on the adjoining plateau, an absence of settlement and limited access to the foreshore.
- Open westerly aspect with endless views out to the Atlantic. A feeling of real danger apparent in high winds and stormy conditions senses overpowered by crashing waves, swirling white water and foam flying off the sea surface.

- Soft and sheltered combes running to the sea, in direct contrast to the surrounding rugged cliff scenery. These afford channelled views out to an empty sea.
- Strong intervisibility with adjacent seascapes, including North Cornwall (as far as Padstow) and to Lundy to the north- west. An iconic view is looking north towards the distinctive form of Damehole Point with the end-on profile of Lundy in the distance.
- Bright white Hartland Point lighthouse and adjacent radar dome (behind SCA 24) strongly recognisable coastal landmarks visible from long distances across Bideford Bay, including from vessels travelling to and from Lundy.
 - **Tall tower of Stoke Church**, a distinctive coastal landmark behind Hartland Quay, also visible from far out to sea in the west (SCA 26).
- Other prominent vertical elements rising above the coastal plateau including
 the aerials and mast at Nabor Point, the bright white satellite dishes associated
 with the radio station at Morwenstow, and several wind turbines also across the
 border into Cornwall.
- Coastguard buildings at Hartland Point, the Hermitage at Welcombe Mouth, Blegbury Farm and the Rocket House are also visible from along the coast and out to sea.
- Hartland Quay has been the location for many films and TV programmes, including *Treasure Island* in 1950 and *Water* in 1985. Poet Ronald Duncan's hut overlooks the sea at Marsland Mouth; this wild and dynamic seascape continuing to provide artistic inspiration to many.







The special qualities of this seascape that would be most sensitive to change include:

- Its outstanding scenic landscape and seascape qualities.
- The dramatic, nationally and internationally important coastal geology and geomorphology including dry valleys and waterfalls.
- Reefs, submerged pinnacles and powerful waves emphasising a sense of wildness and being at the mercy of the elements. The iconic Hartland Point lighthouse reinforces the sense of danger.
- Rich coastal and marine wildlife, with the opportunity to spot seals, dolphins, porpoises and diverse sea bird colonies.
- Legendary associations with ship wrecks, smuggling, historic coastal trade with Wales.
- Opportunities for enjoying and experiencing a 'coastal wilderness', including walking, climbing, rock-pooling, swimming and surfing.
- Views south to Cornwall, west across an empty Atlantic Ocean, and north towards the distinctive end-on profile of Lundy.
- A strong sense of remoteness a largely undeveloped seascape with levels of tranquillity and dark night skies amongst the highest in Devon.







Coastal land / marine resource management

- Post-war intensification of agriculture spurred on by CAP-related subsidies in the 1970s, leading to field enlargement and a spread of intensive arable cultivation along some farmland backing the naturalistic cliff edge. The Speke Mill valley was the last known stronghold for the Large Blue butterfly, which became extinct in Britain in the mid-1960s (since reintroduced elsewhere in the country).
- Continuing efforts required to manage the open heathland and maritime grassland habitats, including through grazing, to reduce the encroachment of bracken, gorse and scrub including onto heritage assets such as Embury Beacon. Much of the coastal heathland within this SCA is managed under Higher Level Stewardship agreements, including Belted Galloway grazing by the National Trust.
- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities and climate change).
- Potential increases in shipping in the wider Bristol Channel leading to pollution and an increase in waste/litter washed in from the sea, as well as a greater risk of major pollution incidences.

Aquaculture and fishing

- Uncertainty over the long-term economic viability of Cornish and North Devon fishing fleets that use these waters (including the small fleet at Clovelly in SCA 22), who are much valued as part of the community, local economy and heritage of the wider area.
- Unknown outcome of Marine Conservation Zone designation (the recommended Hartland to Tintagel site is awaiting a decision on designation by Defra), such as the impacts any future designation might have on fishing activity in the wider area.
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon economy.
 This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.

Access, recreation and tourism (continued over the page)

- Some long-term, occasional issues relating to informal coastal parking (e.g. at Speke's Mill), litter, fly tipping, fires and illegal raves the latter particularly at Welcombe Mouth. These are regularly monitored and addressed by the National Trust, particularly during peak visitor seasons.
- The popularity of the cliffs for climbing is leading to cliff erosion and concerns relating to wildlife disturbance.

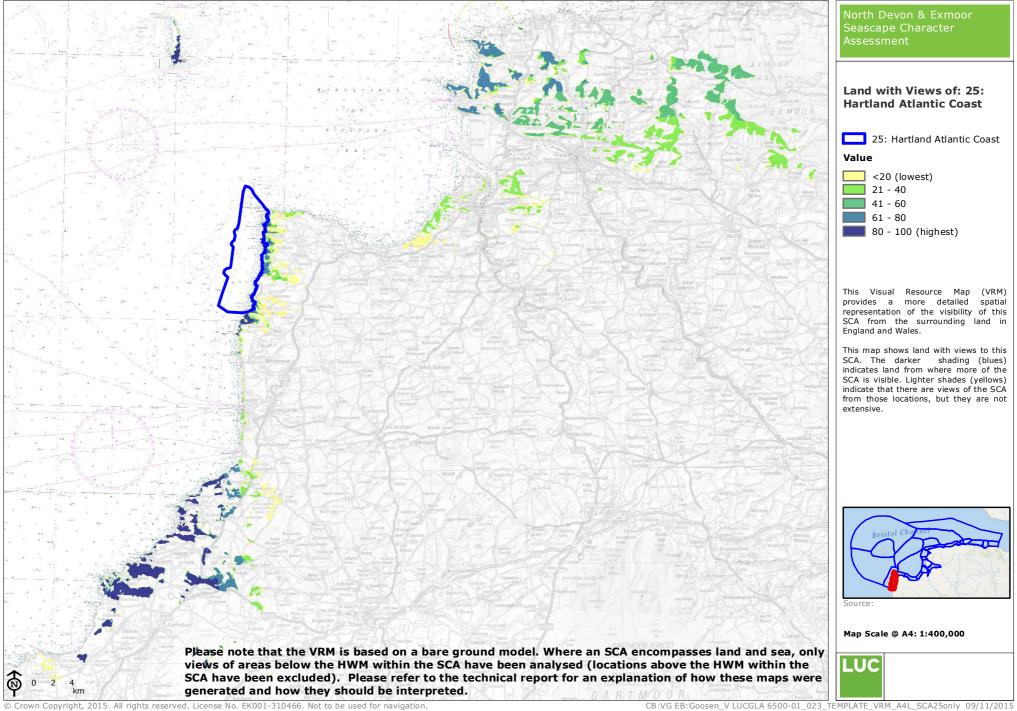
• Increasing popularity of UK-based holidays leading to the potential for higher visitor and access demands – including to the 'honeypot' destination of Hartland Quay. This could put impact on the SCA's natural coastal and marine resources, lead to development pressures and erosion on popular footpaths, and dilute the seascape's 'wild' qualities.

Other development pressures / impacts

- Decline in small farms, and amalgamation and intensification into bigger enterprises leading to farm expansion on the plateau behind, impacting on remote, largely undeveloped character of the seascape (e.g. Blegbury Farm above Damehole Point).
- Cumulative visual effect of vertical structures rising above the coastal plateau, including the aerials and mast at Nabor Point, the bright white satellite dishes associated with the radio station at Morwenstow and several wind turbine developments, including at Crimp (Cornwall).
- Sounds from the Lundy helicopter periodically impacting on levels of tranquillity, although these are low in frequency and duration (and key to providing year-round access opportunities to the island) therefore not seen as a major concern.
- Ongoing national demand for alternative sources of renewable energy production, including offshore wind, wave or tidal energy. The strong tidal streams and wave energy resource characterising this seascape may see particular interest from developers.

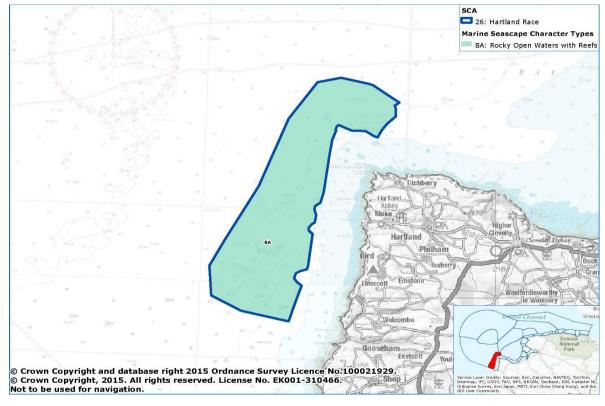
Natural processes and climate change

- Landslides and unstable sections of cliff likely to increase in frequency and prevalence as a result of climate change and sea level rise. The Shoreline Management Plan describes the coastline as slowly eroding, at a rate of around ten metres over the next 50 years. A largely undefended coast, the overall policy stance is to continue allowing the coast to evolve naturally.
- Coastal erosion and sea level rise likely to see the 'squeeze' of intertidal and coastal habitats such as the characteristic rocky foreshore and pockets of sandy beach. Increased rates of erosion may also put sections of the SW Coast Path at risk, as well as threaten archaeological features such as Embury Beacon (already heavily eroded) and the coast's many iconic coastal landforms.
- Impacts of climate change on characteristic open grassland and heathland habitats (potentially increased growth rates, accelerating the spread of scrub and trees onto open coastal heath and heritage assets), including an increased prevalence of pests and diseases.



SCA 26: Hartland Race

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)





SCTs within the SCA: 8A Rocky Open Waters with Reefs.

Wrapping around Hartland Point, between two and 8.5 kilometres offshore, this is an area of open water aligned with the Cornish border to the south and Windbury Head to the east. It forms a transition from the enclosed seascapes of Bideford Bay and the Bristol Channel to the east, and the open exposed Atlantic to the west. Here, the Hartland Race and its associated overfalls bouncing off Hartland Point produce visibly 'confused seas'. An exposed, wild and unforgiving sea with notoriously strong tidal streams, currents and high wave energy, there are only low levels of fishing activity in the area and a large number of shipwrecks lie within the waters. The SCA does however support commercially important fish species, due to the complex seabed habitats present. Vessels are guided through the dangerous seas by the prominent Hartland Point lighthouse. Across the SCA there is strong intervisibility with adjacent seascapes, including North Cornwall (as far as Padstow) and Lundy to the north- west.



Natural / physical influences

- Area of open sea wrapping around Hartland Point, its extent aligning with the Cornish border to the south and Windbury Head to the east. The SCA is located between two and 8.5 kilometres offshore.
- A strong transition from the enclosed seascapes of Bideford Bay and the Bristol Channel to the east, and the open exposed Atlantic to the west.
- Sea depths ranging from 22m to 40m, the seabed comprising a solid geology of Devonian and Carboniferous mudstones and sandstones, with bands of limestone also present within the SCA's southern half.
- Seabed overlain by fine sand and mud circalittoral sediments, becoming
 coarser grained further offshore with some areas of biogenetic reef in the SCA's
 northern extent.
- Characterised by notoriously strong tidal streams, currents and high wave energy sweeping in from the open Atlantic to the west. A highly exposed seascape – respected as such by the boating community.
- The Hartland Race and its associated overfalls bouncing off Hartland Point (SCA 25), producing visibly 'confused seas' when wind direction opposes the tide. During winter storms surf runs offshore from the Point into the waters of this SCA.
- Parts of the inner waters within the Hartland Point to Tintagel Recommended Marine Conservation Zone, with fragile sponge and anthozoan communities associated with areas of rocky subtidal habitat.
- Waters used as feeding grounds by seabirds colonising the nearby coastal cliffs and rock outcrops, including gannets, cormorants, shearwaters and redthroated divers.
- Varied commercially important fish species associated with the wider area, including mackerel, bass, pollock, black bream, sharks, lobster and crab.
- Seals, dolphins and porpoises frequently spotted in the waters, along with occasional sightings of porbeagle sharks.

Cultural and social influences (past and present)

- Known as the 'Iron Coast', referencing the area's many shipwrecks. The strongly
 visible landform of Hartland Point in SCA 25 is thought to have been known by the
 Romans as 'the promontory of Hercules'.
- Vessels guided through the dangerous seas by the prominent white-painted Hartland Point lighthouse, situated on a rock outcrop below the Point. Established in 1874 and automated in 1984, the powerful flashing beam has a range of eight nautical miles.
- Several British and French casualties from WWI sunk by German U-Boats. These include the SS Queenswood (travelling from from Rouen to Port Talbot), the British merchant ship Clangula (travelling between Liverpool and Rotterdam) and

the defensively-armed merchant steamer the *Northfield* – all downed without warning in 1917/18.

- The wrecks today form valued scuba diving destinations.
- Wider associations with the smuggling coast of Hartland (see SCA 25) and maritime trade in and out of Hartland Quay during the 16th to 19th centuries including coal and lime imported from Wales and local exports such as corn and malt.
- The Pleasure House Folly, thought to be a smugglers outpost, forms a visible landmark above Hartland Quay in landward views from this SCA.
- Generally low levels of commercial and recreational fishing activity owing to the exposed and dangerous sea conditions, including charters and potters from Clovelly and Bude.
- Long views across this seascape from SCAs 22, 25 and 26, enjoyed by walkers on the SW Coast Path and National Trust estate land, climbers, surfers and visitors to Hartland Quay.

- A wild, unforgiving seascape with high levels of remoteness and an overriding sense of danger. Endless views out across the Atlantic, occasionally marked by container ships and tankers travelling to/from the Bristol Channel.
- Sense of exposure and isolation emphasised in views of breaking waves marking the Race and white water swirling and crashing into the distant cliffs.
- A **contrasting sense of calm** perceived when passing the Point to the east views characterised by a gentler, more vegetated coastline (SCA 24).
- Bright white Hartland Point lighthouse and adjacent radar dome forming strongly recognisable coastal landmarks – the flashing beam from the lighthouse serving as a reminder of the dangerous seas beneath.
- Spectacular views inland to the rugged Hartland coast with its complex, contorted geology and sheer rock formations, including the distinctive landform features of Hartland Point itself, the triangular form of Damehole Point and the recognisable profile of Higher Sharpnose Point in Cornwall.
- Strong intervisibility with adjacent seascapes, including North Cornwall (as far as Padstow) and **Lundy** to the north- west the island providing a distinctive focal point on a wide, flat ocean horizon.
- Rounding Hartland Point allows expansive views east across the wider Bideford Bay, characterised by increased levels of human activity and calmer, flatter waters.
- Tall tower of Stoke Church visible as a coastal landmark behind Hartland Quay, (SCA 26). Buildings and structures on the open Hartland plateau are also distinguishable, including the buildings associated with Hartland Quay, Rocket House and various masts (including at Nabel Point).

The special qualities of this seascape that would be most sensitive to change include:

- Wild, remote and isolated seascape with a strong sense of danger.
- Complex, dynamic seabed habitats home to commercially important fish species; supporting the heritage and economy of local ports and harbours, including Clovelly (SCA 22).
- Feeding seabirds, diving gannets and fishing boats creating movement and activity.
- Historic connections with wider smuggling and maritime trade; WWI activity evidenced by wrecks (valued destinations for scuba diving).
- Dramatic views to the rugged Hartland coast with its iconic lighthouse; open Atlantic views interrupted only by the distinctive profile of Lundy.
- Its role as part of the wider maritime setting to the North Devon AONB & Heritage Coast and Lundy Heritage Coast.







Marine resource management

- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities, offshore development, and climate change).
- Potential increases in shipping to/from the Bristol Channel leading to heightened levels of pollution risk, along with increases in marine litter.
- Tighter fishing restrictions in other parts of the North Devon and Bristol Channel area could lead to greater pressures on the fish stocks found within this SCA.

Aquaculture and fishing

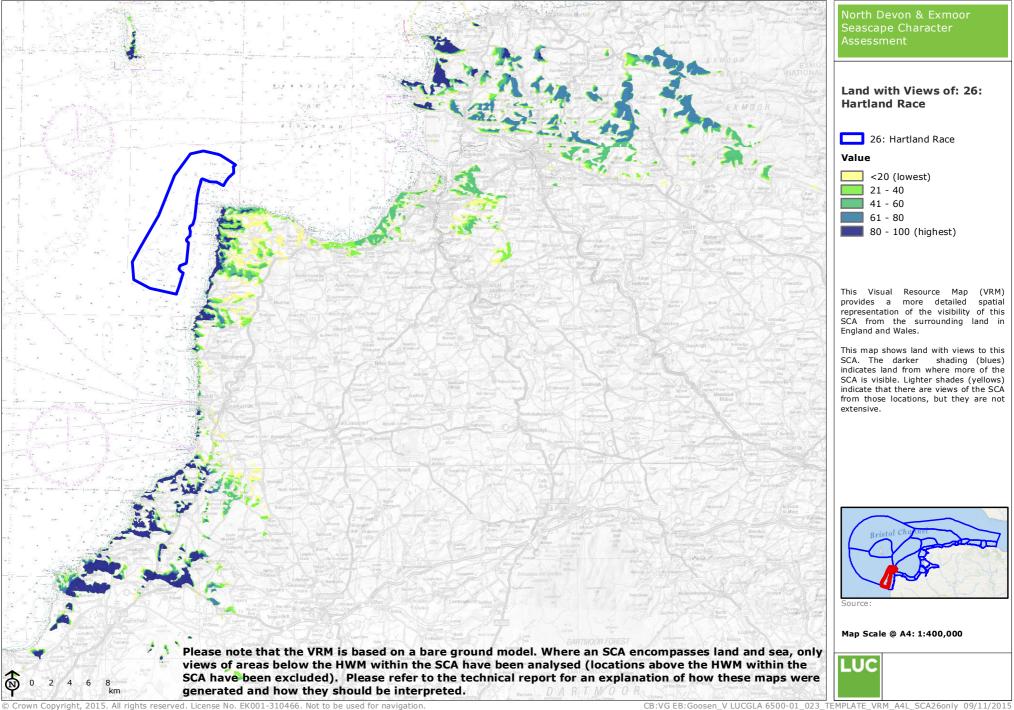
- Unknown outcome of Marine Conservation Zone designation (the Hartland Point to Tintagel recommended site is currently under consideration by Defra), including the impacts any future designation might have on fishing activity in the wider area.
- Insecure economic viability for the commercial fishing fleets using these waters, who are much valued as part of the community, local economy and heritage of the wider area. This includes the small traditional fleet based at Clovelly harbour (SCA 22).

Other development pressures / impacts

- Strong tidal energy resource, potentially seeing demand for tidal stream testing and deployment, impacting on the remote qualities of the wider seascape.
- Ongoing national demand for alternative sources of renewable energy production. Although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward which could impact on the wild and open qualities of this SCA.
- Any new coastal developments (e.g. on the elevated Hartland plateau backing SCAs 24 and 25) would be prominent in the open, expansive landward views offered from this SCA.

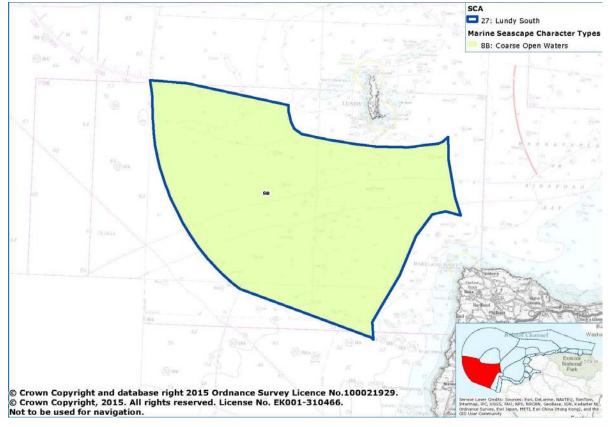
Natural processes and climate change

• Increased frequency of storm surges and sea level rise as a result of climate change; this could present increased risks for maritime navigation and access in an already challenging area of sea.



SCA 27: Lundy South

Click here to return to interactive overview map of the Seascape Character Areas (SCAs)





SCTs within the SCA: 8B Coarse Open Waters.

Located within the outer 'Atlantic' part of the North Devon seascape study area, to the south of Lundy, this SCA forms the western edge of the Bristol Channel where it meets the Celtic Sea, comprising deep waters of up to 60m. The strong tidal currents and open to Atlantic swells from the south-west create hazardous seas. A remote area of sea which forms an important open seascape setting to Lundy; strongly intervisible with the Hartland/Clovelly coast. Long views are also afforded north to Pembrokeshire Coast National Park in clear conditions.



Natural / physical influences

- Located within the outer 'Atlantic' part of the North Devon seascape study area, to the south of Lundy, forming a gateway into Bideford Bay and the Bristol Channel.
- Waters ranging in depth from 35 to 60 metres in the SCA's western extent, with a tidal range of more than seven metres.
- Undulating seabed predominantly formed of **Devonian and Carboniferous** mudstones and sandstones, with some bands of halite and lignite.
- Rocky seafloor covered in parts by shallow coarse circalittoral sediments of sand and gravel, exposed to a moderate energy water environment. The sediments are punctuated by areas of boulders and bedrock protrusions.
- Areas of biogenetic reef extending south from Lundy and in the western part of the SCA; the varied subtidal habitats supporting a range of species.
- Important spawning area for commercially fished species including sprat, cod, sole, whiting and plaice. Seasonal populations of squid and sharks are also found in the area.
- Harbour porpoises, grey seals and dolphins known to frequent the waters.
- Area of strong tidal currents and open to Atlantic swells from the southwest creating hazardous seas.

Cultural and social influences (past and present)

- Vessels guided through the hazardous seas by the long flashing beams of Lundy South Light (SCA 15), established in 1897, and Hartland Point Lighthouse, established in 1874 (SCA 25).
- Hazardous seas represented by a number of submerged wrecks, many unidentified and still being discovered, but including the City of Exeter, a steamship which sank in 1887.
- A number of ships bombed and torpedoed during the two World Wars also lie
 on the seabed, including the cargo ship the Teneriffa, bombed in 1941 but all the
 crew rescued; and the Bessie Stephens, a merchant ship sunk by a German
 submarine in 1918.
- The HMS Glenart Castle, a Royal Navy hospital ship, was also torpedoed by a
 German submarine in 1918 with the loss of 162 lives. Along with others it is a
 popular dive and charter fishing site. A memorial plaque to this loss is sited on
 Hartland Point (SCA 25).
- **Submarine telephone cables** crossing the sea bed, linking the UK and Europe. These make landfall at Saunton Sands (SCA 8).

- Used by smaller coastal shipping, with main shipping approach for large vessels being to the north of Lundy – closer to the main Bristol Channel ports and harbours including Avonmouth.
- Historically important offshore fishery for UK boats and some visiting Belgian and French trawlers, targeting demersal flatfish, sharks and roundfish, plus limited netting.
- Fishing grounds sustaining local North Devon and Cornwall ports and harbours, including Ilfracombe, Appledore, Bideford and Clovelly.

- **Part of a wide expanse of sea** between the North Devon and South Wales coasts, the western area adjoining the open Atlantic Ocean.
- With parts up to 40 kilometres away from the nearest point on the mainland at Hartland Point, the seascape is associated with a **strong sense of isolation**.
- Long-ranging intervisibility with Pembrokeshire Coast National Park to the north, and the North Devon AONB to the south and east. Distant glimpses of development and lighting around the Taw/Torridge Estuary dilute overall feelings of remoteness.
- Forms an important open seascape setting to Lundy in views from the Clovelly and Hartland coastline; in turn creates the distinctive maritime setting to the AONB coastline, including Hartland Point with its landmark lighthouse.
- Characterised by the backdrop and focal point provided by the end-on form
 of Lundy, including its southern lighthouse, landing beach and landmarks of Old
 Light and the island's church tower.
- Perceptual character strongly influenced by weather and atmospheric conditions - tranquillity on calm days can be quickly replaced by wild and forbidding conditions as gales and storms sweep in from the west.
- Sense of isolation and remoteness broken by passing maritime transport and fishing trawlers, introducing intermittent bursts of colour, movement and noise.

The special qualities of this seascape that would be most sensitive to development-led change include:

- Open water with a simple, consistent and unified marine character a gateway into the enclosed seascapes of Bideford Bay and the Bristol Channel.
- Tranquillity on calm days quickly replaced by wild and forbidding conditions as gales and storms sweep in from the west.
- Shipwrecks illustrating the maritime heritage of the area and past conflicts; now valued scuba diving and fishing sites.
- Historically important fishing grounds key to sustaining the traditional economy and heritage of local ports and harbours.
- Strong intervisibility with the North Devon AONB (including Hartland Point with its lighthouse) and Lundy; with far-reaching and uninterrupted views to Pembrokeshire Coast National Park.

Marine resource management

- General lack of awareness and certainty about the marine habitats and species found within the seascape, as well as how these might be affected by current or future forces for change (including human activities, offshore development, and climate change).
- Potential increases in shipping in the Bristol Channel leading to pollution and an increase in waste/litter washed up on the surrounding coastlines, as well as a greater risk of major pollution incidences.
- Zones of tighter fishing restrictions within other areas of the Bristol Channel (including Lundy) could lead to greater pressures on the fish stocks found within this seascape.

Aquaculture and fishing

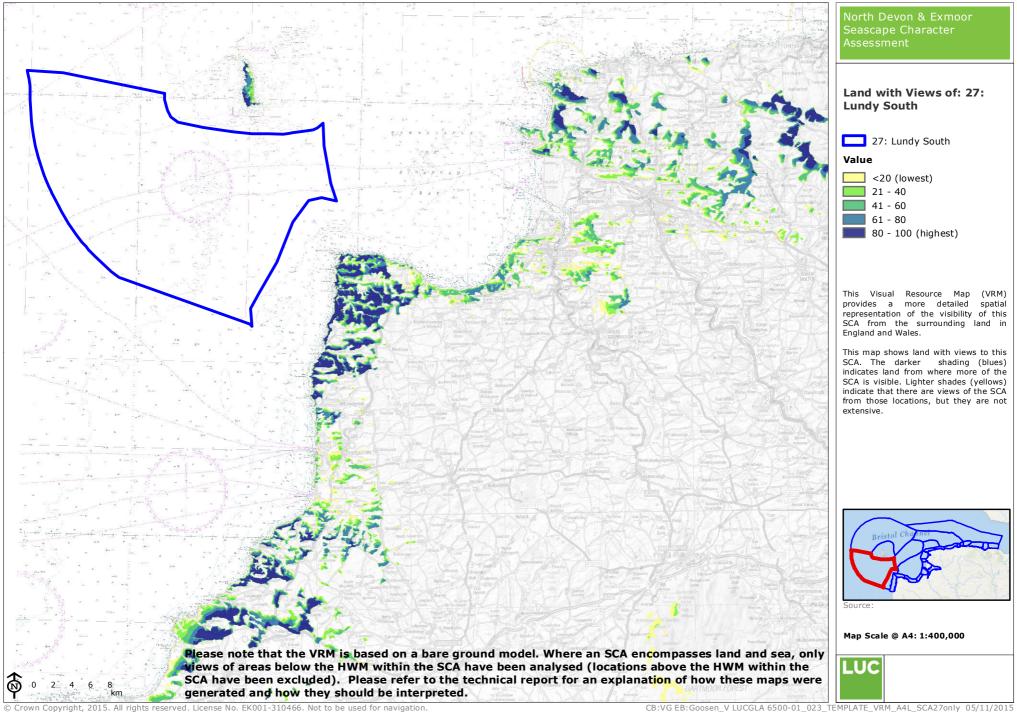
- Perceived conflicts between the conservation of the marine resource and the economic importance of fishing activity to the wider North Devon (and South Wales) economy. This is being addressed across North Devon by ongoing dialogue and research by the Devon and Severn Inshore Fisheries Conservation Authority (IFCA), the Marine Management Organisation (MMO), Centre for Environment, Fisheries and Aquaculture Science (Cefas), Natural England, the North Devon Fishermen's Association and the North Devon Biosphere Marine Working Group.
- Insecure economic viability for the commercial fishing fleets using these waters, who are much valued as part of the community, local economy and heritage of the wider area.

Development pressures/impacts

- Increased future demand for aggregates extraction potentially leading to sites within this SCA being explored for dredging (currently none is licenced for this activity). This could disrupt sediment flow and load, having the potential to affect Lundy's distinctive clear waters and conditions favoured by species such as pink sea fans and cup corals.
- Strong tidal energy resource may see future proposals for tidal energy schemes, impacting on the open and undeveloped character of the seascape and its setting to Lundy and the Hartland/Clovelly coast of the North Devon AONB.
- Ongoing national demand for alternative sources of renewable energy production; although the Atlantic Array proposal did not proceed, future offshore wind energy schemes may still come forward impacting on the simple, open character of the sea and its crucial maritime setting to Lundy.

Natural processes and climate change

• Increased frequency of storm surges and sea level rise as a result of climate change, accelerating the shifting nature of the sand/gravel sediments within the SCA; disrupting sediment flow/load within the waters; and putting coastal communities at greater risk of coastal flooding, erosion and storm damage.





Appendix 1: Bibliography and data list

The key literature sources used for this study are listed below (publications and websites), with GIS datasets included at Table A1.1.

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Table A1.1: GIS data list

Theme	Data Layers	Source (obtained from)		
Baseline Information				
Maps and Charts	Admiralty Charted Raster - various scales	Oceanwise (eMapsite)		
	OS maps - 1:250,000	Ordnance Survey		
	OS maps - 1:50,000	Ordnance Survey (NDC and Exmoor NPA)		
	OS maps - 1:25,000	Ordnance Survey (NDC and Exmoor NPA)		
Boundaries/Extent of Jurisdictions	Mean High Water Mark	Ordnance Survey		
	Marine administrative boundaries	Oceanwise (eMapsite)		
	Local Authority boundaries	Ordnance Survey		
	Shoreline Management Plan extents	Environment Agency		
	England Marine Plan Areas	MMO		
	Landscape/Seascape Character			
	National Character Areas	Natural England (Magic)		
	Terrestrial Natural Areas	Natural England (Magic)		
	Wales Marine Character Areas	NRW (LUC)		
	Historic Seascape Character Assessment	English Heritage		
Landscape/ Seascape Character	Historic Landscape Character Areas	Devon CC		
	North Devon & Torridge Landscape Character Areas & Types	North Devon DC		
	Exmoor Landscape Character Areas & Types	Exmoor NPA		
	Devon Character Areas	Devon CC		
	National Marine Landscape (UK Seamap)	EMODnet -funded by DG MARE		
	National Parks	Natural England (Magic)		
	AONB	Natural England (Magic)		
Landscape Designations	Heritage Coast	Natural England (Magic)		
	Areas of Great Landscape Value	North Devon DC		
	Coast & Estuary Zone	North Devon DC		
	Natural Factors			
Bathymetry and elevation	Bathymetry - elevation areas	Oceanwise (eMapsite)		
Biodiversity & Designations	Priority Habitat Inventory	Natural England (Magic)		
	Important Bird Areas/RSPB Reserves	RSPB (Magic)		
	Site of Special Scientific Interest (SSSI)	Natural England (Magic)		
	National Nature Reserves (NNR)	Natural England (Magic)		
	Local Nature Reserve (LNR)	Natural England (Magic)		
	Exmoor & Somerset County Wildlife Sites	North Devon DC & Exmoor NPA		
	Special Protection Area (SPA)	Natural England (Magic)		
	Special Areas of Conservation (SAC)	Natural England (Magic)		
	Ramsar sites	Natural England (Magic)		

	Marine Conservation Zones	Natural England (Magic)
	UK SACs with marine components (Natura 2000)	JNCC
	UK SPAs with marine components (Natura 2000)	JNCC
	OSPAR Marine Protected Areas	JNCC
	Biosphere Definitive Areas	North Devon DC
	OSPAR Habitats 2014	EMODnet
	Infauna biotypes	Natural England (Biosphere Reserve)
	Marine species recorder	Natural England (Biosphere Reserve)
	Ray and whelk boxes	Natural England (Biosphere Reserve)
	Fixed nets	Natural England (Biosphere Reserve)
	Marine biotopes	Natural England (Biosphere Reserve)
	Benthic grab sites	Natural England (Biosphere Reserve)
	EUNIS Seabed Habitats	EMODnet
Geology and Geomorphology	Ancient Woodland	Natural England (Magic)
	Offshore bedrock & sediment geology	BGS (eMapsite)
	Onshore bedrock & sediment geology	BGS (NDC)
	Regionally Important Geological Sites (Exmoor, Somerset, North	
	Devon & Torridge)	Exmoor NPA, NDC
	Cultural/Social	
	Historic Parks and Gardens	English Heritage
	Listed Buildings	English Heritage
Heritage	Protected Wrecks	English Heritage
	Conservation Areas	Exmoor NPA
	Scheduled Monuments	English Heritage
	National Trails	Natural England (Magic)
Recreation	Natural England recreation map data	Natural England (Magic)
Recreation	CROW All access areas	Natural England (Magic)
	Country Park	Natural England (Magic)
Shipping and navigation	MTF Administrative areas	Oceanwise (eMapsite)
	MTF Transport & routes	Oceanwise (eMapsite)
	MTF Obstructions & wrecks	Oceanwise (eMapsite)
	MTF Industrial areas	Oceanwise (eMapsite)
	Renewable Energy Atlas Wind power	ABPMer
Industry, Energy and Infrastructure	Renewable Energy Atlas Wave power	ABPMer
	Renewable Energy Atlas Tidal power	ABPMer
	Wind farm/Aggregate Licences & Applications	The Crown Estate
	Marine Licences and Applications	MMO
	Experiential/Perceptual	
Visual Resource Mapping	Land with sea views (national scale)	MMO
	Sea visibility from land (national scale)	MMO
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Appendix 2: Summary key characteristics for Seascape Character Types

This appendix provides summary key characteristics for the Seascape Character Types (SCTs) found within the study area. For those SCTs that are also identified as Landscape Character Types in the North Devon & Torridge Landscape Character Assessment (2011), generic key characteristics are taken from the Devon Menu of Landscape Character Types, as these are applied across the county. Similarly, those SCTs in Exmoor National Park formed from Landscape Character Types include summary key characteristics taken from Exmoor's Landscape Character Assessment (2007).

New SCTs identified for this study are indicated in red in **Table A2.1** below; with generic key characteristics populated from observations made at the more detailed Seascape Character Area (SCA) level. The choice of coding was agreed in principle with the Devon Landscape Policy Group during a meeting in September 2015. Please note that the coding takes into account new SCTs identified for parallel work on a Landscape/Seascape Character Assessment for Plymouth. It is intended that future seascape studies in Devon apply the same SCTs should they reflect the character of the area(s) concerned.

Table A2.2 at the end of this Appendix provides a summary list of all Landscape/Seascape Character Types found in the study area, showing which cover both this study and the published Landscape Character Assessments, as well as a summary list of the new coastal/intertidal and marine SCTs.

Please refer to **Figure 2.2** in the report for a map of the SCTs and adjacent Landscape Character Types (LCTs).

Table A2.1: Summary key characteristics for Landscape/Seascape Character Types found in North Devon and Exmoor

Seascape Character Type (SCT) Code and Name	Summary key characteristics	SCA(s) with land/sea within the SCT
	INTERTIDAL/COASTAL SEASCAPE CHARACTER TYPES	
DEVON-WIDE (EXCLUE		
2C: Steep Open	Distinctive topography including very steep, narrow slopes, dramatic headlands and minor combe valleys	• SCA 11
Slopes	Elevated slopes afford long-ranging and panoramic views across the coastal landscapes	• SCA 12
	Varied geology including Morte Slate, and Devonian sandstone and mudstone	• SCA 13
	 Upper slopes of open downland and remnant heath, with lower slopes enclosed in a pattern of post-medieval and modern fields 	
	 Exposed, windswept landscape with tree cover limited to occasional wind-sculpted shelterbelts and stunted woodland 	
	Mosaic of maritime grasslands, coastal heath, bracken and scrub of importance to nature conservation	
	Historic environment features include ancient cultivation terraces and former quarries	
	Range of vernacular building styles including mix of Victorian and Edwardian villastyle houses and grand hotels	

Seascape Character Type (SCT) Code and Name	Summary key characteristics	SCA(s) with land/sea within the SCT
4A: Estuaries	 Broad, sweeping estuary with expansive mudflats and sandbanks inundated by water from the sea at high tide Fringed with areas of saltmarsh, sandspits, lagoons and reclaimed areas of marshland Habitats nationally important for biodiversity – supporting major populations of migratory and overwintering wading birds, fish and rare plants and flowers Banks of estuary defined by grazing marsh, arable fields and rough grassland Unsettled but strongly influenced by adjacent towns and development Open and expansive landscape, with large skies Range of opportunities for waterfront access and recreation Strong sensory characteristics of colour and texture, smell of mudflats, birdcalls, sight of sunlight reflecting off the water 	• SCA 19 • SCA 20
4B: Marine Levels & Coastal Plains	 Flat expansive landscapes often with 'big skies' and long views across adjacent wide estuary and seascapes Geology of Devonian and Carboniferous mudstones topped with tidal and alluvial deposits of clay, silt and sand Wet pastures and reclaimed marshes enclosed by reed-fringed drainage ditches Preserved medieval open strip fields Exposed landscape with limited tree cover - occasional stands of trees with riparian and secondary woodland Habitats of national importance include coastal grasslands, reedbeds, grazing marsh Strong sense of exposure and of being close to the coast, with the horizontal landscape giving a feeling of space and evoking perceptions of 'wildness' 	• SCA 18 • SCA 19
4C: Coastal Slopes and Combes with Settlement	 Steep-sided and narrow branching combes carving through the surrounding rolling landform to the coast Dense woodland at the heads of combes and tree-lined streams Semi-natural habitats include ancient oak-dominated woodland, wet woodland, and mosaics of unimproved grassland (including Culm grassland), heath and scrub, with maritime grassland A strong sense of containment, with views often limited by the steep wooded combe slopes Strong medieval strip field systems and historic villages with vernacular of cob, Morte slate, thatch, whitewash and stone Influence from Edwardian and Victorian seaside resorts and development Traditional vernacular of cob, Morte slate, thatch, whitewash and stone 	 SCA 10 SCA 11 SCA 12 SCA 17
4E: Extensive Inter-Tidal Sands	 Wide sandy beaches with a westerly aspect, backed by sand dunes and framed within broad bays often marked by spectacular cliffs Often crossed by small streams draining to the sea Few static historic features revealed due to the constantly changing nature of the coastline 	 SCA 12 SCA 17 SCA 18 SCA 19

Seascape Character Type (SCT) Code and Name	Summary key characteristics	SCA(s) with land/sea within the SCT
4F: Dunes	 Important feeding grounds for wading birds Unsettled, 'wild' landscapes with perceptual qualities strongly affected by the seasons In summer periods the beaches are alive with movement and activity as popular destinations for surfing, kite boarding and beach holidays Views inland often include tourism-related development, including holiday parks and caravan sites Exposed, open spaces and wide panoramas out to sea and along the coast Landscape comprising hummocky dune systems backing sandy beaches Elevated and exposed topography affording extensive views along the coast, out to sea and inland Sand dunes underlain by Late Devonian sandstones and mudstones High nature conservation interest and biodiversity value associated with rich dune grasslands, wildflowers and scrub supporting diversity of rare plant and animal species Undeveloped landscape with strong sense of wildness and high levels of tranquillity Perceptual qualities affected by views of nearby urban and tourism-related development, as well as the extensive 	 SCA 20 SCA 12 SCA 17 SCA 18 SCA 19 SCA 20
4H: Cliffs	 Perceptual qualities affected by views of healthy diball and tourish related development, as well as the extensive use of the dunes for recreation Steep rocky or vegetated coastal cliffs of varying heights, punctuated by waterfalls, rocky coves, stacks and sea arches Distinctive exposed rock stratifications often clearly visible Predominantly treeless, although some stretches have significant mature oak-dominated woodlands clinging to the cliff tops Rich in semi-natural habitats, including mosaics of maritime grassland, heath and scrub Cliff faces support important breeding colonies of seabirds Settlement limited to small fishing villages and clusters of cottages at the mouths of combes, with traditional whitewash or exposed stone vernacular Iron Age hillforts occur in commanding cliff-top positions, as well as limekilns, remnants of the area's industrial past Extensive and dramatic views, reaching out to sea along the coastline and inland over ridgelines A 'wild' and remote landscape with high levels of tranquillity 	 SCA 10 SCA 11 SCA 12 SCA 17 SCA 18 SCA 21 SCA 22 SCA 24 SCA 25
4I: Rocky Foreshores (new SCT identified by this study)	 Comprising exposed bedrock forming ledges protruding out from the base of coastal cliffs (4H) Rugged wave-cut platforms with distinctive rock formations and rockpools, gullies, crevices and boulders Important geological and geomorphological features, reflecting diversity of rock types and coastal processes Complex habitats shaped by the rugged and varied profiles of the rocks, supporting a rich diversity of intertidal wildlife, often adapted to harsh exposed conditions and a constantly changing environment Subject to inundation at high tide; some areas can quickly become inaccessible where fast tides are characteristic 	 SCA 10 SCA 11 SCA 12 SCA 17 SCA 18

Seascape Character Type (SCT) Code and Name	Summary key characteristics	SCA(s) with land/sea within the SCT
	Wild qualities with an overall absence of development, exposed to the forces of waves and wind coming off the sea	 SCA 20 SCA 21 SCA 22 SCA 24 SCA 25
4L: Exposed Sandy Bays (new SCT identified by this study)	 Sea bed primarily overlain by mobile sand sediments, gently shelving to up to 20 metres in depth Often backed by wide sandy beaches and sand dunes (SCTs 4E and 4F) Exposed and open to a high energy wave environment; some inner bays being more sheltered, according to the presence/position of enclosing headlands and prevailing weather conditions Dangerous tidal streams and overfalls associated with headlands and/or submerged sand banks Frequent wreck sites owing to treacherous sea conditions, with associated stories of smuggling and wrecking Popular for surfing, bathing and commercial/recreational fishing, including for bass, sole and rays Large skies and seas dominating; open aspect allowing far-reaching views out to sea and along adjacent coasts 	 SCA 12 SCA 17 SCA 18 SCA 20
4M: Sheltered Rocky and Sandy Bays (new SCT identified by this study)	 Shallow waters gently shelving to no more than 20m depth Sheltered from prevailing weather conditions, often with a northerly aspect – character influenced by shifting tides Enclosed by prominent coastal landforms and headlands - headlands often associated with contrasting hazardous sea conditions Rocky and gravelly seabed (mixed coarse sediments) often with areas of Sabellaria reef, home to commercially important fish species, lobster and crab Bays historically used as safe refuge; often associated with nearby harbours with a strong maritime and fishing heritage Sheltered waters suitable for a range of activities including kayaking, motor boating and yachting Open aspect affording expansive views out to sea; and from the surrounding seas into the bays, enclosed by higher land and cliffs. 	 SCA 2 SCA 5 SCA 7 SCA 10
4N: Exposed Coastal Waters (new SCT identified by this study)	 Gently shelving seabed reaching a maximum water depth of 20m Veneer of sand and mud sediments overlaying the seabed; exposed to a high energy water environment Seaward side completely open to the ocean and its associated storms and weather patterns; with high wave as well as tidal energy. Reefs, underwater pinnacles and associated overfalls creating hazardous navigational conditions Honeycomb worm reefs, corals, fragile sponges and mussel beds attracting diverse marine life. Commercially important fish species (including mackerel, bass and sharks); lobster and crab associated with rocky 	• SCA 25

Seascape Character Type (SCT) Code and Name	Summary key characteristics	SCA(s) with land/sea within the SCT
40: High Energy Coastal Waters (new SCT identified by this study)	 habitats Associated with a high density of ship wrecks owing to dangerous sea conditions Exposed and wild seascape with an absence of development and low levels of human activity Gently shelving sea bed, generally up to 20m in depth Strong tidal streams and currents, producing an ever-changing seascape Dynamic high energy sand and gravel sediments and biogenetic reefs supporting a rich variety of marine life, including fragile sponge and anthozoan communities Ship wrecks illustrating the dangerous seas Waters important for commercially and recreationally fished species such as rays, bass, pollock and mackerel; lobster and crabs are associated with rocky areas Low intensity water-based activities including sea kayaking, recreational fishing and diving charters and sightseeing boat trips Overriding sense of the sea with wide skies and distant views; sense of danger apparent, particularly in heavy gales and storms 	 SCA 4 SCA 5 SCA 8 SCA 10 SCA 11
4P: Moderate Energy Coastal Waters (new SCT identified by this study)	 Maximum water depths generally ranging between 10 and 20m Dynamic mixed (sand and gravel) sediments, with some areas of biogenetic reef supporting a variety of marine flora and fauna Influenced by moderate tidal energy, with some strong tidal streams and current experienced at springs. Variety of fish species including bass, rays, mackerel, congers and codling; lobster and crab associated with areas of rocky reef Ship wrecks illustrating hazardous conditions that can arise during north/ north-westerly storms and gales Various sea-based activities including kayaking, recreational fishing and diving charters and sightseeing boat trips Open aspect affording expansive views to adjacent coasts and seas. 	 SCA 1 SCA 5 SCA 7 SCA 21
4Q: Sheltered Coastal Waters (new SCT identified by this study)	 Shallow waters generally up to 10m in depth, with some areas shelving to up to 20m Sand and muddy sediments supporting shallow kelp beds Areas of biogenic reef extending out from a rocky foreshore (4I) Varied commercially important fish species including bass, herring, mackerel, pollock and black bream; rocky reefs home to lobster and crab Comparatively sheltered, protected from prevailing south-westerlies by adjacent landform Long-standing role as refuge from more exposed seas, with small historic harbours with a strong fishing and maritime heritage Sheltered waters used for a variety activities including kayaking, sailing and paddle-boarding. 	• SCA 22

Seascape Character Type (SCT) Code and Name	ter Type	
	Tranquil, calm character which can be broken in north/north-westerly storms.	
	Open aspect affording expansive views to adjacent coasts and seas.	
5B: Coastal	Strongly rolling landscape with prominent ridges and hilltops, influenced by the close proximity of the sea	• SCA 20
Undulating Farmland	Underlying geology of mudstones and siltstones with bands of more resistant sandstone creating the undulating landform	• SCA 21
	Pervading maritime influence with long coastal views	
	Strong pattern of fields of post-medieval origin, interspersed with significant areas of smaller curving or medieval strip fields	
	Well-wooded character with linear bands of broadleaf woodland and blocks of conifer plantations	
	Coastal locations include patches of maritime grassland, wet flushes and bracken scrub, important for nature conservation	
	Peaceful and tranquil qualities with low levels of development	
5C: Downland	Rolling downland landscape with broad rounded ridges and hilltops	• SCA 11
Sc. Downland	Views to wooded valleys provide contrasting colour and texture within a strongly agricultural landscape	• SCA 12
	Northern and coastal sections of the landscape underlain by resistant Morte slate	• SCA 17
	Sparsely settled and peaceful character, with dispersed farmsteads sited in dips in the landform	• SCA 18
	A simple agricultural landscape dominated by the sky	
	Glimpses of the north and west coasts proves a maritime influence to areas closer to the sea	
	Semi-natural habitats limited to fragmented sites of species-rich acidic and neutral grassland, rush pasture, small patches of semi-natural woodland	
6: Offshore Islands	Long views across the sea to distance coastlines	• SCA 15
Unununu 13141143	Exposed coasts and plateau defined by an absence of tree cover	
	High concentrations of archaeological remains including Bronze Age burial mounds, early Christian inscribed standing stones, remains Castles, quarries and gun emplacements	
	A landscape at the mercy of the elements and defined by the ever-present influence of the sea	
	A challenging and exhilarating 'wilderness' experience to visitors arriving by boat or helicopter from the mainland	
	Forms a distinctive seascape feature in views from the coast and from the open waters of the Bristol Channel	
7: Main Cities and	Large settlements over 200ha in area, including seaside resorts and towns	• SCA 10
Towns	A townscape/landscape dominated by built development	• SCA 20
-	Varied landform, often masked by development and only apparent when particularly pronounced	
	Nucleated historic cores, frequently including and surrounded by 19th century development, with more recent 20th	

Seascape Character Type (SCT) Code and Name	Summary key characteristics	SCA(s) with land/sea within the SCT
	century and later development on fringes	
EXMOOR NATIONAL PA	ARK	
A: High Coastal Heaths	 Open landscape of rich semi-natural heathland Strongly articulated landform, undulating plateau, rounded moorland hills and steep, rugged, coastal cliffs Dramatic, with a strong sense of elevation and exposure Overriding sense of the sea with wide skies Distant, far-reaching coastal views and across the adjacent Bristol Channel to Wales Inaccessible cliffs create a sense of solitude South West Coast Path provides good pedestrian access to the slopes and cliffs Elevated and open landscape providing wide skies and distant views across the Bristol Channel 	 SCA 1 SCA 4 SCA 5 SCA 6 SCA 8 SCA 10
B: High Wooded Coasts, Combes and Cleaves	 A landscape of dramatic landform character with steep convoluted coastal slopes and deeply-incised narrow valleys and combes Dominated by tree cover with continuous tracts of deciduous woodland (much of which is Ancient) clothing the valley sides and coast Underlain by a solid geology of Lynton Slates (grey or dark grey silty slates or siltstones and grey sandstones) with drift valley head deposits and alluvium Farmland typically characterised by pasture, with sheep, horses and cattle grazing Away from the larger coastal villages and sections of busy road, an overriding tranquil character predominates 	 SCA 1 SCA 2 SCA 4 SCA 5 SCA 7
C: Low Farmed Coast and Marsh	 Strong influence of the sea due to proximity to, and views across, the adjacent seascape Simple land cover of open, treeless salt marshes giving way further inland to enclosed farmland of improved pastures Striking flat terrain contrasting with enclosing landforms of the adjacent wooded slopes, coastal heaths and vale Surface geology defined by drift river deposits, salt marsh deposits and a mix of silt, sand, and clay with rock fragments Prominent landmark features in the form of an old limekiln and World War II pillboxes A tranquil rather than remote landscape, reduced in high season when visitor numbers increase 	• SCA 2
E: Farmed and Settled Vale	 Variable landform - flat floodplain to undulating high vale with occasional small hills or hummocks The alluvial flood-plain deposits of streams and rivers crossing the vale define the surface geology Well-treed character - with small copses and clumps, scattered trees and overgrown hedges Strong visual connection with the surrounding landscapes that enclose the vale 	• SCA 1 • SCA 2

Seascape Character Type (SCT) Code and Name	Summary key characteristics	SCA(s) with land/sea within the SCT
F: Enclosed Farmed Hills with Commons	 Landscape defined by broad rolling terrain of hills and ridges Land cover defined by permanent pasture enclosed by beech hedge banks Defined by an underlying geology of mudstones, sandstone and slates Fine loamy/silty well-drained soils Agricultural land use defined by pasture – with sheep prevalent Strong influence of adjacent landscapes MARINE SEASCAPE CHARACTER TYPES	 SCA 1 SCA 4 SCA 5 SCA 7 SCA 8 SCA 10
8A: Rocky Open Waters with Reefs (new SCT identified by this study)	 Open waters with sea depths ranging from 14 to up to 45m Reefs, shoals and sand banks associated with treacherous navigational conditions with strong tidal races High wave energy where open to the wider ocean. Areas of high and moderate energy circalittoral rock and biogenetic reefs home to tide-swept faunal communities. Coarse sediments forming havens for seasonal variations of fish species, including commercially important stocks of cod, plaice, bass, sole and ray. Sights of aquatic mammals, including harbour porpoises, grey seals and dolphins (and occasionally orca); as well as feeding/diving seabirds Navigational features usually the only permanent man-made structures visible above the sea surface Many ship wrecks indicating a strong maritime heritage, hazardous seas, and creating valued artificial reefs and scuba diving sites. Trawlers, maritime transport and recreational boats/yachts forming moving features. Strong intervisibility with adjacent seascapes, including both developed and undeveloped sections of coast. High levels of wildness, remoteness and dark night skies. 	 SCA 9 SCA 13 SCA 15 SCA 26
8B: Coarse Open Waters (new SCT identified by this study)	 Open waters with sea depths ranging from 20-60m. Strong tidal streams and currents, parts open to Atlantic swells. Seabed covered by shallow coarse circalittoral sediments of sand and gravel, exposed to a moderate energy water environment. Sand waves can occur. Sediments punctuated by boulders, bedrock protrusions, sand ridges and mud troughs. Varied nature of the seabed giving rise to high bethinic species and biotope diversity: biogenic reef, polychaete rich communities and tide swept channels. Important spawning area for commercially fished species including sprat, cod, sole, whiting and plaice. Seasonal populations of squid and sharks are also found in the area. Sights of aquatic mammals, including harbour porpoises, grey seals and dolphins (and occasionally orca); as well as 	SCA 14SCA 16SCA 27

Seascape Character Type (SCT) Code and Name	Summary key characteristics	SCA(s) with land/sea within the SCT
	feeding/diving seabirds	
	Navigational features usually the only permanent man-made structures visible above the sea surface	
	 Many ship wrecks indicating a strong maritime heritage, hazardous seas, and creating valued artificial reefs and scuba diving sites. 	
	Trawlers, maritime transport and recreational boats/yachts forming occasional moving features.	
	Strong intervisibility with adjacent seascapes, including both developed and undeveloped sections of coast.	
	High levels of wildness, remoteness and dark night skies.	
8C: Shallow	Large area of open water sheltered by a sweeping coastline	• SCA 23
Inshore Bays	Water depths generally ranging between 10 and 20m, with some isolated areas of deeper water	
(new SCT identified	Moderate tidal streams, shaping and shifting sand and mud sediments	
by this study)	• Sand and muddy substrates providing important habitats for commercial fish species, including plaice, bass, sole, rays, mackerel- with rocky areas supporting crab and lobster.	
	• Sights of aquatic mammals, including harbour porpoises, grey seals and dolphins (and occasionally orca); as well as feeding/diving seabirds	
	Strong maritime heritage and relationship with nearby coasts, ports and harbours; ship wrecks providing valued scuba diving and fishing sites	
	Submarine telecommunications cables crossing the seabed	
	Water-based recreation including sailing, sightseeing/fishing charters and sightseeing cruises	
	Strong intervisibility with adjacent seascapes, including both developed and undeveloped sections of coast and the open se	
	 Perceptual qualities varying according to prevailing weather conditions – the pervading sense of shelter and calm rapidly shattered in north or north-easterly gales 	
8D: Offshore Tidal	Enclosed seascape with water depths ranging between 14 and 46 metres	• SCA 3
Channels	Seabed topography influenced by the presence of sand and gravel banks exposed to strong tidal movements and creating high levels of turbidity	
(new SCT identified	Traces of relict palaeochannels creating lasting evidence for ancient landscapes	
by this study)	Areas of high and moderate energy circalittoral rock and biogenetic reefs home to tide-swept faunal communities	
	 Sand and gravel banks forming havens for seasonal variations of fish species, including commercially important stocks of cod, plaice, bass and ray. 	
	Common dolphins occasionally spotted.	
	 Exposure to weather rolling in from the Atlantic creating areas of high wave climate where distances from land are greater 	
	Strong historical and current associations with maritime trade and transport, with high levels of human activity and	

Seascape Character Type (SCT) Code and Name	Summary key characteristics	SCA(s) with land/sea within the SCT
	frequent sightings of tankers and container ships	
	Many ship wrecks forming artificial reefs and scuba diving sites	
	Numerous disused and active telecommunications cables crossing the seabed	
	Strong intervisibility with adjacent seascapes, including both developed and undeveloped sections (with night-time lighting a feature developed horizons)	
	Sense of danger and relative wildness during storms, despite views to settlement and associated 'safety'.	

Table A2.2: Complete list of Character Types found in the Study Area

COMPLETE LIST OF CHARACTER TYPES FOUND IN THE STUDY AREA COASTAL/INTERTIDAL CHARACTER TYPES (FOUND IN BOTH LANDSCAPE & SEASCAPE CHARACTER ASSESSMENTS) North Devon and Torridge 2C: Steep Open Slopes 4A: Estuaries 4B: Marine Levels & Coastal Plains 4C: Coastal Slopes and Combes with Settlement 4E: Extensive Inter-Tidal Sands 4F: Dunes 4H: Cliffs 5B: Coastal Undulating Farmland 5C: Downland 6: Offshore Islands 7: Main Cities and Towns **Exmoor National Park** E: Farmed and Settled Vale A: High Coastal Heaths B: High Wooded Coasts, Combes and Cleaves F: Enclosed Farmed Hills with Commons C: Low Farmed Coast and Marsh NEW COASTAL/INTERTIDAL SEASCAPE CHARACTER TYPES (IDENTIFIED BY THIS STUDY) 4I: Rocky Foreshores 4L: Exposed Sandy Bays 4M: Sheltered Rocky and Sandy Bays 4N: Exposed Coastal Waters 40: High Energy Coastal Waters 4P: Moderate Energy Coastal Waters 4Q: Sheltered Coastal Waters **NEW MARINE SEASCAPE CHARACTER TYPES (IDENTIFIED BY THIS STUDY)** 8A: Rocky Open Waters with Reefs 8B: Coarse Open Waters

8C: Shallow Inshore Bays

8D: Offshore Tidal Channels

Appendix 3: Individuals and organisations who contributed to this study

Stakeholder workshops

To inform the study three stakeholder workshops were held in September 2015. These took the form of three workshops, to which delegates from a range of different stakeholders groups were invited to attend:

- 8th September Barnstaple, North Devon
- 9th September Bideford, Torridge
- 17th September –Lynmouth Pavillion, Exmoor National Park

Lists of the delegates that attended the workshop events are provided in **Table A3.1** below.

Table A3.1: Workshops and attendees

North Devon Workshop - 8 th September 2015		
Delegate	Organisation	
Andrew Bell	North Devon Biosphere	
Andy Jones	North Devon Council	
Dave Edgcombe	North Devon AONB	
Jenny Carey-Wood	North Devon AONB Partnership	
Cllr Jim Bell	North Devon Council	
John Breeds	Local Conservationist	
Jonathan Fairhurst -	National Trust	
Kate Weld	North Devon Biosphere	
Lesley Burgess	Westleigh Parish Council	
Mike Edmunds	Ilfracombe East	
Malcolm Wilkinson	Georgeham & Mortehoe	
Natalie Gibb	North Devon AONB	
Pete Leaver	David Wilson Partnership	
Steve Pitcher	North Devon AONB Partnership	

Rob Joules	National Trust
Steve Woodmand	Mortehoe Parish Council
Jim Scovell	Chivenor MOD
Melanie Parker	Natural England
Anita Nathwani	Fishing for History, North Devon Museums

Torridge Workshop - 9th September 2015

Delegate	Organisation
Joy Cooper	Hartland Parish Council
Councillor Dart	Torridge District Council
Councillor Whittle	Torridge District Council
Councillor John Hilman,	Torridge District Council and Northam Town Council
Councillor Gordon Lester	Alwington Parish Council
Dave Edgcombe	North Devon AONB
David Appleton	Natural England
Gregg Wilson	National Trust
Anita Lewington,	Romansleigh Parish Council
Bruce Macfarlane	Torridge District Council

Exmoor Workshop - 17th September 2015

Delegate	Organisation
Ben Bryant	Somerset Wildlife Trust
Richard Edgell	ENPA member
Julian Gurney	National Trust
Kevin Harris	Lynton Town Council
Steve Head	ENPA member
Nick Holliday	ENPA member
Karen	West Somerset Council
Cllr Pretorius-Hanks	Lynton Town Council

Tessa Saunders	ENPA
Briony Turner	Steam Coast Trail
Penny Webber	ENPA member, landowner and accommodation provider
Dr Colin E Ridsdale	Scientist (botanist)
Sarah Bryan	ENPA
Tim Parish	ENPA
Andrea Davis	ENPA and Devon County Council
Alistair Rodway	Lynton and Lynmouth Town Council
Dave Edgcombe	North Devon AONB

Other consultation

Rate my View

A total of 116 people submitted their photographs and comments of the landscape using the 'Rate my View' App. These can be viewed at http://ratemyview.co.uk/

Further input by individuals

The following Steering Group members and individuals have also provided invaluable inputs into the study.

Steering Group

Dave Edgcombe, North Devon AONB

Sarah Bryan, Exmoor National Park Authority

Rob Joules, National Trust

Andrew Jones, North Devon Council

Bruce Macfarlane, Torridge District Council

David Appleton, Natural England

Melanie Croll, Devon County Council

Individuals

Andy Bell, North Devon Biosphere Reserve

Chrissie Ingle, Northern Devon Fisheries Local Action Group

Simon Dell, Guide, Author and Public Speaker (commentator on the *Oldenburg* from Bideford to Ilfracombe, 4 September 2015)

Doug Walls, Clovelly Charters and local fisherman

Jeremy Waller, Captain of the M.S. Oldenburg

Derek Green, Lundy Island

Rebecca McDonald, Lundy Island

Shaun Galliver, local skipper and Chair of the Ilfracombe Sub-Aqua Club

Rob Wilson-North, Conservation Manager, Exmoor National Park Authority

Graham McVittie, Conservation Officer, Exmoor National Park Authority

John Balls, North Devon Fishermen's Association

Tony Flux, Coast and Marine Advisor, National Trust

Kate Jones, Ranger, National Trust

Gregg Wilson, Ranger, National Trust

Roger English, South Devon AONB















