

Appendix D

Natural and Built Environment Baseline (Thematic Review)

CONTENTS

	Page
1 INTRODUCTION	1
2 OVERVIEW OF THE CORNISH AND ISLES OF SCILLY COASTLINE	2
3 CURRENT AND FUTURE LAND USE	4
4 NATURAL ENVIRONMENT	13
5 LANDSCAPE AND CHARACTER	24
6 HISTORIC ENVIRONMENT	27
7 DESCRIPTION OF THE COASTLINE AND THEME SUMMARY	30
8 GLOSSARY	54
9 SOURCES OF INFORMATION	57

Appendices

Appendix A: List of beaches and settlements in the study area

1 INTRODUCTION

1.1 Theme Review objective

This document describes the qualities of the Cornwall and Isles of Scilly coastline. It aims to establish and record the key features that create value for people living, working and visiting the coastline. The values identified relate to current and future land use, the natural environment, landscape and character and the historic environment.

Describing the coast in this way provides the foundation for shoreline management planning that takes account these values. This approach underpins the development of policy options and ensures a considered approach to option evaluation.

There are no conclusions drawn from this descriptive report. Rather, the report aim is to record the diverse nature of the human, natural and historic environment of Cornwall and the Isles of Scilly coastline.

This report is closely related to the Strategic Environmental Assessment (SEA) Scoping Report, which is presented in Appendix D as a separate report.

1.2 Report Format

This document provides an overview of the diverse range of features relevant to the coastline in Sections 2 to Section 6. Section 7 provides a more detailed consideration of the values of the coastline present on a focussed geographic basis using a series of characterisation areas in order to describe the character of the coastline.

This approach allows the development of an overall picture of what it is that contributes to making Cornwall and the Isles of Scilly special as a whole, while at the same time appreciating the diversity across the area.

The Theme Review consists of the report body supplemented by the features, benefits, issues and objectives table presented in Appendix E.

2 OVERVIEW OF THE CORNISH AND ISLES OF SCILLY COASTLINE

2.1 Introduction

The coastline of Cornwall and Isles of Scilly is wholly within the study area of the SMP Review. In addition a small section of the North Devon coastline to Hartland Point is also included, making up over 500 miles (900km) of coastline including the estuaries.

The general shape of the coastline is characterised by hard, craggy cliffs, resistant headlands, small and medium sized bays containing wide sandy beaches, rocky coves containing smaller pocket beaches and large areas of dunes (locally often referred to as 'towans'). The character of the coastline however varies significantly between the north and south coasts.

The Isles of Scilly lie 45km to the west of Land's End and form an archipelago of six inhabited islands and numerous other small rocky islets, of which there are around 140 in total.

The landscape within the SMP study area is diverse and this is dominated by the geology, the resulting topography and the influence of the sea and water (White Consultants and Diacono Associates 2007). This landscape combined with a warmer climate regulated by the Gulf Stream makes the fauna and flora of the area very diverse. Many areas are considered to be of international and national importance for ecology, geology, the historic environment and landscape. The mild climate means the south and west of the county and Isles of Scilly have rich plant cover including species such as palms. Due to its more exposed nature the north coast features maritime grassland, heathland, and stunted woodland.

2.2 North Coast

The north coast is flanked by the Atlantic Ocean, and is exposed to the prevailing south-westerly winds that blow in across the Atlantic. The north coast has a wild nature, with rugged, sheer cliffs and steep valleys. Within this environment, there are significant dune systems and wide golden sandy beaches. There are three significant estuaries on the north coast; the Hayle Estuary, the Gannel estuary and the Camel estuary, of which the Camel is the largest.

2.3 South Coast

The south coast is protected somewhat from the Atlantic swells. It is more sheltered with several broad estuaries and sheltered rias offering safe anchorage such as Carrick Roads and Fowey and many sheltered and warm habitats for overwintering and migratory birds, such as on the Scillies, and at Marazion Marsh, Hayle and Ruan Lanihorne. The beaches on this stretch of coastline are generally characterised by coarser sands and shingle interspersed with rocky sections of wave cut platforms. Again, there are large expanses of 'towans' or dunes such as at Par.

2.4 Isles of Scilly

The Isles of Scilly form the remnants of an upstanding granite landform linked to Cornwall. The Islands themselves are a result of the weathering of a granite batholith, which rises from the sea floor. The single rock type has generally produced a uniform coastline,

although there is localised variation within the islands comprising resistant headlands, small sheltered bays, sandy pocket beaches and accumulations of wind blown sand.

3 CURRENT AND FUTURE LAND USE

This section provides an account of the environment in terms of existing land uses, population and economy. It includes discussion of recreation, tourism and amenity, which are a key component in the economy of Cornwall and the Isles of Scilly. Finally future land use and planning is discussed to provide information on any anticipated changes within the study area.

3.1 Current land use, population and economy

3.1.1 Land use

Cornwall is a rural and maritime county and remains essentially rural in character. Farming remains the predominant land use, both inland and along the coast, although it is no longer the main element of the economy, especially in coastal regions.

The vast majority of the land in the SMP area is used for agriculture. In total 80 percent of Cornwall and Isles of Scilly's land area is farmed, which is greater than the national average of around 72% (Wills, 2004). The greatest proportion of this land is used as permanent grassland.

Throughout the area, there is a wide range of scattered rural settlements. The great number of small towns and villages throughout the SMP area reflects an economy that was historically built around largely self sufficient farming, fishing and mining communities. The dispersed settlement pattern means that the SMP area has a low population density when compared to the rest of the country.



Fishing community of Lamorna

Most of the major communities within Cornwall are in close proximity to the coast due to their historical development around harbours. There are seven main urban centres (Strategic Urban Centres) within the county. These are Bodmin, Camborne-Pool-Redruth, Falmouth-Penryn, Newquay, Penzance, St. Austell and Truro. With the exception of Camborne-Pool-Redruth and Bodmin all of these main centres are located within the SMP2 study area.



Newquay harbour remains active today

St Mary's on the Isles of Scilly is an important centre for the islands. Of the 140 islands that make up the Isles of Scilly, only five are inhabited. These are

- St Mary's
- Treco
- Bryher
- St Martin's
- St Agnes

Figure 3.1 shows many of the towns and villages in Cornwall and the Isles of Scilly.

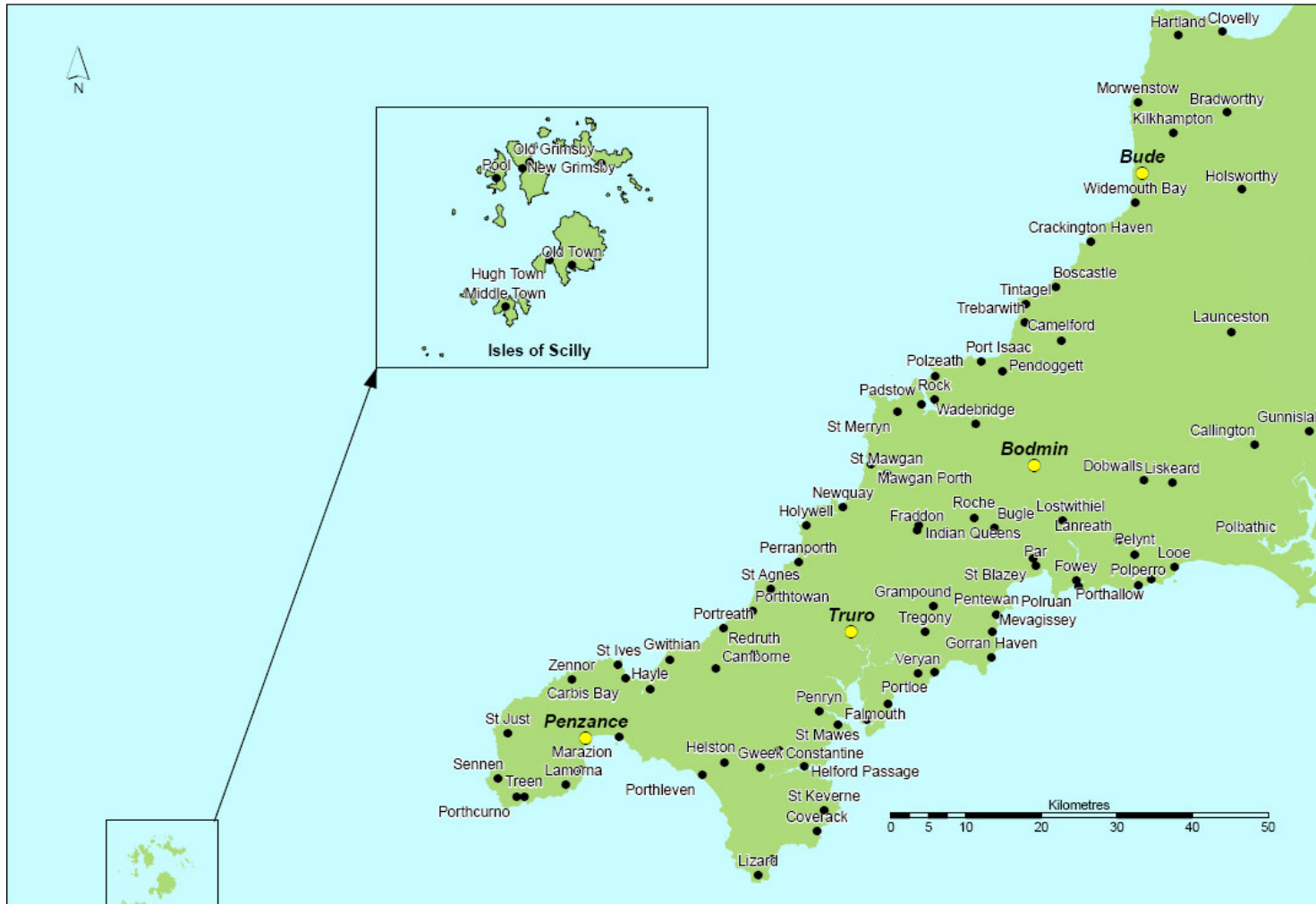


Figure 3.1 Towns and villages in the Cornwall and the Isles of Scilly

3.1.2 Population

With a permanent population of 2,000 people the Isles of Scilly has by far the lowest population of any English county or unitary authority (Council of the Isles of Scilly 2009). Cornwall had a total estimated resident population of 529,600 in 2007 (ONS, 2007), with a population density of 144 people per km², which is one of the lowest in the UK.

Between 1997 and 2007, Cornwall's population grew by 9.6%, which is much greater than the national average of 5.0%. Population growth in Cornwall today is through migration, as the area is considered a desirable location to live, particularly for families and older people. Economic conditions in the county mean that many younger people emigrate to more active economically diverse areas. Of those who migrate to the county, many people chose to relocate to the coast.

The population of the Scilly Isles remains fairly constant, although it is comprised of a disproportionately large number of older people.

During the summer months particularly, the numbers of people in the County and Isles of Scilly increases very significantly due to the influx of tourists, often to coastal areas. This can increase pressure on the services, infrastructure and environment of the area.

3.1.3 Economy

The majority of coastal settlements within the SMP2 area are dependant on a range of industries. These include primary industries such as fishing, farming and mining, as well as a large number of service sectors associated with tourism, recreation and other light industry in the region. Employment opportunities are limited, especially where traditional industries are in decline.

Cornwall and the Scilly Isles rank amongst the poorest areas of Europe. Average earnings in Cornwall and Isles of Scilly are very low at around £21,000 per annum and below the national average of £25,520. Unemployment is relatively high, comparative to the south west but was at the same rate as England, during 2006 to 2007 (Cornwall Council).

These factors reflect the fact that Cornwall and the Scilly Isles continue to qualify for European Objective 1 status (Convergence funding 2007 – 2013). Such funding is provided to support the local economy and benefit the community. One project seeking to secure retrospective funding from this source is the Wave Hub, a wave energy project that is one of the UK's flagship renewable energy projects. The Wave hub is planned to be built 10 miles off shore from Hayle during 2010 (South West Regional development Agency 2009).

A sector that provides many employment opportunities is the tourist industry, particularly in coastal areas, with 22 per cent of employment in the county related to tourism in 2007 (South West Tourism 2007). Tourism is a growing sector of the economy on both the Cornish mainland and the Isles of Scilly. The Cornish Tourist Board states that "In the last decade Cornwall has emerged as one of the world's iconic destinations" (<http://www.visitcornwall.com/>) with the Cornish economy receiving over £1.6 billion in visitor related spend in 2007 alone (South West Tourism 2007).

On the Scilly Isles, tourism is the Islands' primary source of income, although traditional activities of fishing and farming are also significant. Tourism to the Isles of Scilly makes up

85% of the Islands' economy with over 120,000 visitors per year (Council of the Isles of Scilly 2009).

3.2 Access to the shoreline

Access to the shoreline throughout the study area is excellent and indeed a requirement of much of everyday life throughout Cornwall and the Isles of Scilly. Many of the economic activities within the area such as the fishing and mining industry and the related settlements at the coast mean that there is much local infrastructure that provides access to the shoreline. In addition, Island life means that the inter-island boat services on the Isles of Scilly is both prevalent and a necessity.

The South West Coast Path, which runs for 630 miles from Minehead in Devon around to Poole Harbour in Dorset provides a continuous walking trail around the mainland SMP2 area, generally along the immediate frontage. This is the longest national trail in the country and is mainly on privately owned land. The Path itself is mostly a 'right of way', which means that there is a legal right to walk across the land as long as you keep on the Path (South West Coast Path 2009).



South West Coast Path near Padstow

Many beaches and coves in the area are accessible all states of tide, with some notable exceptions. The most popular beaches have car parking and other facilities, while some remote beaches require more effort to reach. The extent of sheer and rugged cliff face along much of the coast does mean that beach/shore access can be limited due to access constraints or indeed continuous high water. The Cornwall Beach Guide however still lists over 150 accessible beaches throughout Cornwall (<http://www.cornwall-beaches.co.uk/>).

Increasingly popular is accessing the shoreline by sea. Whether by boat trip, coasteering or kayak, this option is increasing the area of coastline accessible in this way.

Areas of private frontage exist on the mainland and the Scilly Isles. These are associated with the Ministry of Defence, landholders such as the National Trust, Crown Estate and the Duchy of Cornwall, industry (e.g. quarry companies), private dwellings, farms, and hotels. Access to the frontage is generally maintained throughout these areas via the South West Coast Path by agreement with the landowner or small inland deviations.



Section of private beach at Restronguet Creek

Access to the shoreline can be affected where coastal erosion is an issue. This can be a problem along many sections of the coastline. Where the South West Coast Path and road infrastructure is affected, this is managed by Cornwall Council.

3.3 Recreation, tourism and amenity interests

The SMP2 area is a popular destination both with tourists and for outdoor recreational activities. Cruising, kayaking, sailing, diving, fishing and other maritime-based activities are popular, as are a number of coastal activities such as walking the South West Coast Path, bird watching, coastering, climbing and cycling. Surfing is another hugely popular activity, particularly on the north coast. Beaches such as Fistral Beach host annual international and national surf competitions attracting hundreds of spectators.

The beaches of the study area are particularly important. Nine beaches in the study area (81 beaches in total the UK) are part of the Blue Flag programme, which is owned and run by the independent non-profit organisation Foundation for Environmental Education. The Blue Flag works towards sustainable development at beaches (and marinas) through strict criteria dealing with water quality, environmental education and information, environmental management, and safety and other services. The Blue Flag beaches are well publicised and attractive to visitors. Those in the study area are listed below:

- Carbis Bay
- Crooklets
- Gyllyingvase
- Marazion
- Polzeath
- Porthtowan
- Sennen Cove
- Porthmeor
- Porthminster

All of the beaches in the study area provide a huge level of amenity value and a list of all the accessible beaches is provided in Appendix A.

Many communities have an active gig club, with the annual world gig championships on the Isles of Scilly the highlight of the season.



Tregew gig, Fal estuary

Historic assets such as St Michael's Mount and Pendennis Castle are major tourist attractions. Virtually every coastal towns or village is in itself a draw for visitors; with areas such as St Ives, Newquay, Padstow, Bude, Falmouth, and Mousehole some of the major village and town honey pots.



Summer season beach hut preparations at Swanpool beach

Ferry services to and from the Scilly Isles operate from Penzance during March to October, with year round flights available from an increasing number of airports including Land's End, Penzance, Newquay, Exeter and further afield such as Southampton and Bristol.

There are a high proportion of second homes or holiday homes in Cornwall and the Isles of Scilly, comprising 5.6 per cent of the housing stock in 2006 compared to 1 per cent nationally (The Guardian 2006). Of this, it has been estimated that on the Isles of Scilly this is up to 25 per cent of homes (Andrew George MP for St Ives 2006). This localised clustering of second homes is further demonstrated in St Minver ward, North Cornwall where 43 per cent of homes are registered as second homes (The Taylor Review 2008). The implications of second homes on the local economy and sustainability of communities is a highly complex and a debated issue throughout the whole of the area.

3.4 Future land use, planning and targets

High level plans for development in the area are set out in the South West Regional Spatial Strategy (RSS), which establishes a regional framework about 'where things go', what the scale of housing and employment development should be, the links between issues like healthcare, education and crime, as well as basic infrastructure needs such as transport. The RSS covers future development up to the year 2026, with the aim of protecting what is highly valued about the South West region. At the same time, it aims to provide enough new homes and jobs, retail and leisure facilities to meet the needs of a growing population.

The current development proposals extend up to 2026, however they are still in draft. An Examination in Public of the RSS has taken place and suggests greater housing allocations than published in the draft RSS. The final allocations for development will be confirmed when the RSS is finalised, estimated to be in summer 2009.

Because of the very recent creation for the Cornwall Council Unitary Authority, the previous district boundaries are now no longer relevant, and many of the local (district) plans are now defunct. Furthermore, the Cornwall Structure Plan is to be replaced by the Regional Spatial Strategy at the end of May 2009, and the Council is now developing a Local Development Framework for Cornwall.

Although the development allocations in the RSS are not finalised, the most significant areas of housing development for Cornwall will be in the Camborne-Pool-Redruth, Falmouth-Penryn, and Truro areas. In addition, Growth Points have been identified in the Threemilestone area of Truro, and at an inland area in mid Cornwall yet to be determined.

Although the Falmouth-Penryn, and Truro areas are in estuary areas, if Planning Policy Statement 25 (Development and flood Risk) is applied it can be assumed for the purposes of the SMP2 that development will be sited away from flood and erosion risk areas and outside of the SMP2 study area.

Coastal and estuary locations will no doubt however to continue to receive development pressures from windfall and infill development as waterside locations continue to be attractive places to live and work. Towns such as Wadebridge, Newquay, Truro and Falmouth are a focus for housing and commercial redevelopment within flood risk and erosion zones.



Fistral Beach with recent commercial development

The Isles of Scilly are likely to have a requirement to provide an additional 100 dwellings to 2026, with an annual requirement of 5 dwellings per year.

We do not expect land use at the coast throughout the SMP area to significantly change in the future for the following reasons:

- Development at the coast is most likely through infill and brown field development, with the most significant areas for development identified in the RSS away from the immediate coastal and estuary frontage (assuming PPS25 adhered to).
- Growth Point areas are expected to be away from the immediate coastal and estuary frontage.
- The much of the natural environment is designated in order to conserve the undeveloped nature of the coastline.
- Agricultural grassland and arable land constitute much of the land use around the frontage and we expect this to stay broadly the same.

However, as Planning Policy Statement 25 is increasing used to guide strategic planning decisions regarding the locations of development, we may start to see a gradual change in the types of development we see at the immediate coastal and estuary frontage.

In the future, redevelopment in places like Par/St Blazey and Wadebridge could see 'less vulnerable' or 'water compatible development' being favoured in flood risk locations, with the 'more vulnerable' residential developments rolling back from risk zones.

4 NATURAL ENVIRONMENT

The environmental values within the study area are described below in terms of nature conservation (designated areas) and earth heritage. This provides a summary of the key features and issues relating to the natural environment. A more detailed description is provided in the SEA Scoping Report.

4.1 Designated area assessment

The Cornwall and Isles of Scilly SMP2 study area supports a wide variety of habitat and species conservation designations, some being of international importance, others of national importance. Please refer to Section 7.1 for a description of the various designations.

Ramsar sites, Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) are all designated as being of international or European importance under the Ramsar Convention on Wetlands, the Habitats Directive and Birds Directive. The Isles of Scilly is the only designated Ramsar site within the SMP2 boundary, with a further nine SACs and two SPAs identified as occurring within the area. Table 4.1 presents the internationally designated sites in the study area.

Table 4.1 International Designated Sites of the Cornwall and Isles of Scilly SMP2

International Designation	Site Name	Description of interest	Area (hectares)
Ramsar	ISLES OF SCILLY	<p>Criterion 6: (species/populations occurring at levels of international importance)</p> <ul style="list-style-type: none"> During the breeding season some 2.9% of the population of Lesser Black-backed Gull (<i>Larus fuscus</i>) is supported. During the breeding season some 0.2% of the GB population of European storm-petrel (<i>Hydrobates pelagicus</i>) is supported. <p>Criterion 6: (species/populations identified for future consideration)</p> <ul style="list-style-type: none"> During the breeding season some 1.3% of the population of European shad (<i>Phalacrocorax aristotelis</i>) is supported 	401.64
SPA	MARAZION MARSH	<p>Internationally important populations of regularly occurring Annex 1 species: Aquatic Warbler <i>Acrocephalus paludicola</i>, Bittern <i>Botaurus stellaris</i></p>	54.6
SPA	ISLES OF SCILLY	<p>Internationally important populations of regularly occurring Annex 1 species: Storm Petrel <i>Hydrobates pelagicus</i></p> <p>Internationally important populations of regularly occurring migratory species: Great Black-backed Gull <i>Larus marinus</i>, Shag <i>Phalacrocorax aristotelis</i>, Lesser Black-backed Gull <i>Larus fuscus</i>, Storm Petrel <i>Hydrobates pelagicus</i>.</p>	401.35
SAC	POLRUAN TO POLPERRO	<p>Annex I habitats (as primary reason for selection)</p> <ul style="list-style-type: none"> Vegetated sea cliffs <p>Annex I habitats (as a qualifying feature)</p> <ul style="list-style-type: none"> European dry heaths <p>Annex II species (as primary reason for selection)</p> <ul style="list-style-type: none"> Shore dock <i>Rumex rupestris</i> 	213.6
SAC	PENHALE DUNES	<p>Annex I habitats (as primary reason for selection)</p> <ul style="list-style-type: none"> Fixed dunes with herbaceous vegetation ('grey dunes') * Priority feature Humid dune slacks <p>Annex I habitats (as a qualifying feature)</p> <ul style="list-style-type: none"> Shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes') 	621.34

International Designation	Site Name	Description of interest	Area (hectares)
		<ul style="list-style-type: none"> Dunes with <i>Salix repens</i> ssp. <i>argentea</i> (<i>Salicion arenariae</i>) <p>Annex II species (as primary reason for selection)</p> <ul style="list-style-type: none"> Petalwort <i>Petalophyllum ralfsii</i> Shore dock <i>Rumex rupestris</i> Early gentian <i>Gentianella anglica</i> 	
SAC	THE LIZARD	<p>Annex I habitats (as primary reason for selection)</p> <ul style="list-style-type: none"> Vegetated sea cliffs Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. Mediterranean temporary ponds * Priority feature Northern Atlantic wet heaths with <i>Erica tetralix</i> European dry heaths Dry Atlantic coastal heaths with <i>Erica vagans</i> * Priority feature 	3257.11
SAC	GODREVEY HEAD TO ST AGNES	<p>Annex I habitats (as primary reason for selection)</p> <ul style="list-style-type: none"> Temperate Atlantic wet heaths with <i>Erica ciliaris</i> and <i>Erica tetralix</i> * Priority feature European dry heaths <p>Annex II species (as primary reason for selection)</p> <ul style="list-style-type: none"> Early gentian <i>Gentianella anglica</i> 	128.07
SAC	TINTAGEL-MARSLAND-CLOVELLY COAST	<p>Annex I habitats (as primary reason for selection)</p> <ul style="list-style-type: none"> Vegetated sea cliffs Old sessile oak woods with Ilex and Blechnum in the British Isles <p>Annex I habitats (as a qualifying feature)</p> <ul style="list-style-type: none"> European dry heaths 	2429.84
SAC	FAL & HELFORD	<p>Annex I habitats (as primary reason for selection)</p> <ul style="list-style-type: none"> SandbanksMudflats and sandflats Large shallow inlets and bays Atlantic salt meadows <i>Glauco-Puccinellietalia maritima</i> <p>Annex I habitats (as a qualifying feature)</p> <ul style="list-style-type: none"> EstuariesReefs <p>Annex II species (as primary reason for selection)</p> <ul style="list-style-type: none"> Shore dock <i>Rumex rupestris</i> 	6387.8
SAC	Isles of Scilly Complex	<p>Annex I habitats (as primary reason for selection)</p> <ul style="list-style-type: none"> Sandbanks Mudflats and sandflats Reefs <p>Annex II species (as primary reason for selection)</p> <ul style="list-style-type: none"> Shore dock <i>Rumex rupestris</i> <p>Annex II species (as a qualifying feature)</p> <ul style="list-style-type: none"> Grey seal <i>Halichoerus grypus</i> 	26850.95

All SPA, SAC and Ramsar sites are SSSIs, except those in the marine environment below Mean Low Water. In the near future it is expected that new marine SACs will be designated up to the shoreline within the County.

In addition to the internationally important sites, there are nationally important and locally important sites designated by the Local Planning Authority and/or the local Wildlife Trusts. These statutory and non-statutory biodiversity interests are detailed in the remainder of this section. There are no Biosphere Reserves or National Parks within the study area.

Sixty two SSSIs have been identified for their wildlife and habitat interest within the SMP2 boundary, 26 of which are within the Isles of Scilly complex. Table 4.2 presents these sites and their condition.

Table 4.2 Sites of Special Scientific Interest (SSSIs) in the SMP Study Area

SSSI Name	Main Habitat	Hectares	Meeting SSSI PSA	Reason for unfavourable condition
East Lizard Heathlands	• Dwarf shrub heath - lowland	287.36	100%	N/A
Penlee Point	• Earth heritage	1.8	100%	N/A
St. Michael's Mount	• Earth heritage	2.55	100%	N/A
Lower Fal & Helford Intertidal	• Littoral sediment	277.7	100%	N/A
Harbour Cove	• Earth heritage	29.1	100%	N/A
Duckpool to Furzey Cove	• Earth heritage	87.29	100%	N/A
Stepper Point	• Earth heritage	1.6	100%	N/A
Hayle Estuary & Carrack Gladden	• Littoral sediment • Supralittoral sediment	190.3	100%	N/A
Mullion Cliff to Predannack Cliff	• Dwarf shrub heath – lowland • Earth heritage	108.5	100%	N/A
Porthcew	• Earth heritage	9.6	100%	N/A
Coombe Mill	• Built up areas and gardens	0.47	100%	N/A
Rock Dunes	• Supralittoral sediment • Calcareous grassland - lowland	68.1	100%	N/A
Cameron Quarry	• Earth heritage	0.47	100%	N/A
Folly Rocks	• Earth heritage	2.4	100%	N/A
Godrevy Head to St Agnes	• Supralittoral sediment • Dwarf shrub heath - lowland • Earth heritage	627.4	100%	N/A
Coverack Cove & Dolor Point	• Earth heritage	5.63	100%	N/A
St Erth Sand Pits	• Earth heritage	3.9	100%	N/A
Cudden Point to Prussia Cove	• Earth heritage	15.88	100%	N/A
Pentire Peninsula	• Supralittoral rock • Earth heritage	113.7	100%	N/A
Trebetherick Point	• Neutral grassland – lowland • Littoral rock • Earth heritage	20.6	100%	N/A
Cuckoo Rock to Turbot Point	• Earth heritage	102.54	100%	N/A
St. Agnes Beacon Pits	• Earth heritage	7.9	100%	N/A
Tater-Du	• Earth heritage	4.8	100%	N/A
Penhale Dunes	• Earth heritage • Supralittoral sediment	1070.4	100%	N/A
Penlee Quarry	• Earth heritage	25.8	100%	N/A
Porthleven Cliffs	• Earth heritage	8.8	100%	N/A
Nance Wood	• Broadleaved, mixed and yew woodland - lowland	9.8	100%	N/A
Gerrans Bay to Camels Cove	• Supralittoral rock • Earth heritage	139.5	100%	N/A
Rosemullion	• Supralittoral rock • Earth heritage	20.5	100%	N/A
Meneage Coastal Section	• Earth heritage	79.73	100%	N/A
Trevone Bay	• Earth heritage	9.4	100%	N/A
Porthgwarra to Pordenack Point	• Dwarf shrub heath - lowland	157.9	100%	N/A
West Lizard	• Dwarf shrub heath - lowland • Earth heritage	776.28	100%	N/A
Boscawen	• Earth heritage	8.83	100%	N/A
Trevaunance Cove	• Earth heritage	6.85	100%	N/A

SSSI Name	Main Habitat	Hectares	Meeting SSSI PSA	Reason for unfavourable condition
Carricknath Point to Porthbean Beach	<ul style="list-style-type: none"> Neutral grassland - lowland Supralittoral rock 	49.49	100%	N/A
Swanpool	<ul style="list-style-type: none"> Standing open water and canals 	8.87	100%	N/A
Bedruthan Steps & Park Head	<ul style="list-style-type: none"> Supralittoral rock Earth Heritage 	80.8	100%	N/A
Kingsand to Sandway Point	<ul style="list-style-type: none"> Earth heritage 	6.7	100%	N/A
Western Rocks	<ul style="list-style-type: none"> Supralittoral rock 	62.7	100%	N/A
Lower Moors (St Mary's)	<ul style="list-style-type: none"> Fen, marsh and swamp - lowland 	10.2	100%	N/A
Big Pool & Browarth Point (St Agnes)	<ul style="list-style-type: none"> Neutral grassland - lowland 	10.1	100%	N/A
Pool of Bryher & Popplestone Bank (Bryher)	<ul style="list-style-type: none"> Coastal lagoon 	5.9	100%	N/A
Higher Moors & Porth Hellick Pool (St Mary's)	<ul style="list-style-type: none"> Neutral grassland – lowland Earth heritage 	16.2	100%	N/A
St Helen's	<ul style="list-style-type: none"> Dwarf shrub heath - lowland 	26.6	100%	N/A
Plains & Great Bay (St Martin's)	<ul style="list-style-type: none"> Supralittoral sediment 	15.0	100%	N/A
Annet	<ul style="list-style-type: none"> Neutral grassland - lowland 	119.5	100%	N/A
Porth Seal (St Martin's)	<ul style="list-style-type: none"> Earth heritage 	1.05	100%	N/A
Peninnis Head (St Mary's)	<ul style="list-style-type: none"> Dwarf shrub heath – lowland Earth heritage 	16.1	100%	N/A
Pentle Bay, Merrick & Round Islands	<ul style="list-style-type: none"> Dwarf shrub heath – lowland Supralittoral rock 	42.79	100%	N/A
Shipman Head & Shipman Down (Bryher)	<ul style="list-style-type: none"> Dwarf shrub heath – lowland Supralittoral rock 	40.7	100%	N/A
St Martin's Sedimentary Shore	<ul style="list-style-type: none"> Littoral sediment 	34.06	100%	N/A
Watermill Cove	<ul style="list-style-type: none"> Earth heritage 	0.48	100%	N/A
Norrard Rocks	<ul style="list-style-type: none"> Supralittoral rock 	c35.6	100%	N/A
Great Pool (Tresco)	<ul style="list-style-type: none"> Standing open water and canals 	17.5	100%	N/A
Samson	<ul style="list-style-type: none"> Dwarf shrub heath - lowland 	38.7	100%	N/A
Rushy Bay & Heathy Hill (Bryher)	<ul style="list-style-type: none"> Dwarf shrub heath - lowland 	12.2	100%	N/A
Eastern Isles	<ul style="list-style-type: none"> Dwarf shrub heath – lowland Earth heritage 	83.8	100%	N/A
Chapel Down (St Martin's)	<ul style="list-style-type: none"> Dwarf shrub heath - lowland Earth heritage 	34.9	100%	N/A
Wingletang Down (St Agnes)	<ul style="list-style-type: none"> Dwarf shrub heath - lowland 	28.9	100%	N/A
Porthloo	<ul style="list-style-type: none"> Earth heritage 	0.66	100%	N/A
White Island (off St Martin's)	<ul style="list-style-type: none"> Dwarf shrub heath – lowland Earth heritage 	16.55	100%	N/A
Castle Down (Tresco)	<ul style="list-style-type: none"> Dwarf shrub heath – lowland Earth heritage 	58.1	100%	N/A
Gwithian to Mexico Towans	<ul style="list-style-type: none"> Supralittoral sediment Earth heritage 	371.1	99.9%	Planning permission - general
Kennack to Coverack	<ul style="list-style-type: none"> Dwarf shrub heath - lowland Earth heritage 	265.7	100%	N/A
Coverack to Porthoustock	<ul style="list-style-type: none"> Dwarf shrub heath - lowland Earth heritage 	173.46	100%	N/A
Aire Point to Carrick Du	<ul style="list-style-type: none"> Supralittoral rock Earth heritage 	704.81	100%	N/A
Goonhilly Downs	<ul style="list-style-type: none"> Dwarf shrub heath - lowland 	1,271.0	100%	N/A
Bude Coast	<ul style="list-style-type: none"> Neutral grassland - lowland Supralittoral rock Earth heritage 	92.5	100%	N/A
Tintagel Cliffs	<ul style="list-style-type: none"> Supralittoral rock Earth heritage 	221.8	100%	N/A

SSSI Name	Main Habitat	Hectares	Meeting SSSI PSA	Reason for unfavourable condition
Rame Head & Whitsand Bay	<ul style="list-style-type: none"> Supralittoral rock 	160.09	100%	N/A
Kelsey Head	<ul style="list-style-type: none"> Supralittoral sediment Neutral grassland - lowland 	227.6	100%	N/A
Gugh	<ul style="list-style-type: none"> Dwarf shrub heath – lowland Earth heritage 	37.7	100%	N/A
Marazion Marsh	<ul style="list-style-type: none"> Fen, marsh and swamp - lowland 	59.9	100%	N/A
Treen Cliff	<ul style="list-style-type: none"> Dwarf shrub heath - lowland Earth heritage 	49.3	100%	N/A
Cligga Head	<ul style="list-style-type: none"> Dwarf shrub heath - lowland Earth heritage 	113.5	100%	N/A
Eglarooze Cliff	<ul style="list-style-type: none"> Neutral grassland - lowland 	30.8	100%	N/A
Tean	<ul style="list-style-type: none"> Neutral grassland – lowland Earth heritage 	121.3	100%	N/A
Baulk Head to Mullion	<ul style="list-style-type: none"> Supralittoral rock Neutral grassland - lowland Earth heritage 	152.28	99.52%	Not currently available
Boscastle to Widemouth	<ul style="list-style-type: none"> Neutral grassland – lowland Supralittoral rock Broadleaved, mixed and yew woodland – lowland Earth heritage 	639	94.71%	Undergrazing
Polruan to Polperro	<ul style="list-style-type: none"> Supralittoral rock Neutral grassland - lowland 	213.38	91.32%	Inappropriate weed control, Undergrazing
Caerthillian to Kennack	<ul style="list-style-type: none"> Neutral grassland - lowland Earth heritage 	141.4	89.42%	Not currently available
Upper Fal Estuary & Woods	<ul style="list-style-type: none"> Littoral sediment Broadleaved, mixed and yew woodland - lowland 	603.46	82.79%	Forestry and woodland management
Trevoze Head And Constantine Bay	<ul style="list-style-type: none"> Supralittoral sediment Supralittoral rock Earth heritage 	158.5	79.66%	Undergrazing
Steeple Point to Marsland Mouth	<ul style="list-style-type: none"> Supralittoral rock Broadleaved, mixed and yew woodland – lowland Neutral grassland – lowland 	342.8	78.37%	Inappropriate scrub control, Undergrazing (Units 4 & 7) Forestry and woodland management (15)
Porthleven Cliffs East	<ul style="list-style-type: none"> Earth heritage 	13.1	60.5%	Inappropriate coastal management (concrete coastal defences)
Tremearne Par	<ul style="list-style-type: none"> Earth heritage 	14.54	31.08%	Earth science feature removed
Loe Pool	<ul style="list-style-type: none"> Coastal lagoon Supralittoral sediment Earth heritage 	128.7	22.5%	Water pollution - agriculture/run off, Water pollution - discharge
Wheal Penrose	<ul style="list-style-type: none"> Earth heritage 	0.87	0.0%	Soil and vegetation processes

Source: Natural England, 2009.

There are 45 habitats and 143 species with biodiversity actions in Cornwall and Isles of Scilly, with each habitat and species generally having a series of actions to be undertaken. In addition there are 87 marine BAP species (crustaceans, mammals, fish, molluscs, cnidarians, algae, etc) within the coastal waters of the study area. Priority wetland, coastal habitats and marine habitats of the Cornwall and Isles of Scilly SMP2 and those identified within the UK Biodiversity Habitat Plan include the following:

Wetland:

- Fens;
- Reedbeds;

- Chalk Streams; and
- Standing open water.

Coastal and Marine:

- Coastal and floodplain grazing marsh;
- Coastal saltmarsh;
- Coastal sand dunes;
- Coastal vegetated shingle;
- Maerl beds;
- Horse mussel beds;
- Mudflats;
- *Sabellaria Alveolata* reefs;
- Saline lagoons;
- Seagrass beds;
- Sheltered muddy gravels;
- Sublittoral sands and gravels; and
- Tidal rapids.

(Source: Cornwall Wildlife Trust)

National Nature Reserves (NNRs) are established to protect the most important areas of wildlife habitat and geological formations and are also SSSI. They are managed specifically for nature conservation and are designed to be accessible to the public. Although three National Nature Reserves (NNRs) are found in Cornwall, only one (the Lizard NNR) was identified within the boundaries of the SMP2.

As well as sites designated for their national or international importance, a large number of sites have been identified for their local importance, usually by the Local Planning Authority and/or the local Wildlife Trusts. These designations include National Nature Reserves, and Cornwall Nature Conservation sites, Local Nature Reserves (LNRs), country wildlife sites or non-statutory nature reserves. LNRs are places where wildlife or geology is of special local interest and local people are encouraged to learn about and enjoy their environment. Ten LNRs are present within the boundaries of the SMP2 area and presented in Table 4.3.

Table 4.3 Local Nature Reserves (LNRs) within the SMP2 Study Area

Site code	Name	Area (Ha)
1009855	Gwithian Green	7.15
1008815	Bude Marshes	6.26
1134169	Gwithian Towans	32.95
1008978	Kilminorth Woods	45.01
1009306	Par Beach and St Andrews Road	30.44
1009856	Red River Valley	40.85
1009311	Seaton Valley North & South	36.53
1122976	St Gothian Sands	35.26

Site code	Name	Area (Ha)
1009181	Swanpool	7.16
1421595	Upton Towans	103.55

4.2 Conservation targets and plans

There are a large number of plans and conservation targets that cover the SMP2 study area. Table 4.4 is an extract of the key plans from a more comprehensive table presented in Appendix A of the SEA Scoping Report.

Table 4.4 Key plans and conservation targets relevant for the SMP2 Review

Plan	Influences on the SMP2	Key Relevant Issues
European Context		
European Water Framework Directive	<p>Knowledge of, and access to, new information of the Directive (e.g. basin wide data on surface runoff), should help improve the information inventories held by Coastal Groups and integrated into current and future SMPs.</p> <p>The Directive should not be viewed as an overarching coastal or coastal risk management plan. Instead, the Directive's principles should be clearly and substantively integrated into the SMP2.</p>	Impacts to coastal cliffs and associated landscapes including areas protected for their landscape importance and character.
European Habitats Directive	Any plan or project likely to have a significant impact on a designated site should undergo an appropriate assessment of its implications for the conservation objectives of the site.	Impacts or loss of designated natural habitat types due to changes in coastal management (e.g. managed realignment and loss of grazing marsh) and natural coastal processes.
European SEA Directive	The policies of the SMP2 should have regard for the sustainable solutions to shoreline management and the environment.	Impacts to the environment associated with shoreline management and natural coastal processes.
European Birds Directive	Policies of the SMP2C should comply with the Directive.	Impacts to the bird habitat associated with shoreline management and natural coastal processes.
Bathing Water Quality Directive	Where possible the SMP2 policies should ensure that measures are prescribed to protect or restore the quality of bathing waters to BWD standards.	Impacts to the bathing waters associated with shoreline management and natural coastal processes.
National and Regional Context		
Conservation of Dynamic Coasts: A framework for managing Natura 2000	<p>This report / framework promotes a more strategic approach to site management and the response to dynamic change. The proposed actions of the report will help to implement the Habitats and Birds Directives in the United Kingdom.</p> <p>The SMP2 (as stated under European Context) should include the identification of appropriate compensation/mitigation sites in an adjacent to protected areas, as at present it is unlikely to deliver such a framework.</p>	Management of the natural environment regarding Natura 2000 sites associated with the coastal environment (e.g. impacts to designated sites due to natural coastal processes and management thereof example, coastal breaching, cliff erosion, cliff stabilisation, coastal squeeze, interruption of sediment supplies etc.).
The Regional Strategy, South West Environment 2004 - 2014	The SMP2 needs to take into account the impact of such issues as sea level rises on the environment in regards to the ability of the chosen shoreline policy options to combat such environmental concerns as sea level rises.	<p>Rising sea levels, unpredictable coastal dynamics leading to increase coastal erosion and damage coastal amenities. Natural assets such as beaches, wetlands, estuaries, mudflats, salt marshes and dunes may be lost along with their wildlife.</p> <p>Sea level rise, coastal squeeze and changes to coastal processes will threaten existing coastal habitats.</p> <p>Climate change impacts to species-rich habitats.</p>
South West Climate Change Action Plan 2008 - 2010	The SMP2 needs to take into account the impact of climate change such as sea level rises and increased fluvial and tidal flooding on the chosen shoreline management policies (e.g. managed realignment).	Impacts of climate change on sea level rises and associated consequences such as loss of habitats/species, tourism and recreation and impacts of increased fluvial and tidal flooding on pollution runoff, cultural heritage and habitats
Cornwall County Structure Plan 2004	<p>Policies within the SMP2 should comply with those listed in the vision for the Plan and the below key policies:</p> <p>Policy 1 – Principles of Sustainable Development. Policy 2 – Character Areas, Design & Environmental Protection.</p>	<p>Retaining important elements of the local landscape and the regeneration, restoration and enhancement of the natural landscape.</p> <p>The sustainable balance between coastal development and the environment.</p> <p>Global climate change and impacts on sea levels and coastal erosion and flooding.</p> <p>Protection of undeveloped coast regarding</p>

Plan	Influences on the SMP2	Key Relevant Issues
Devon Structure Plan 2001 - 2016	<p>Policies within the SMP2 should comply with those listed in the vision for the Plan and the below key policies:</p> <p>ST1 Sustainable Development. CO1 Landscape Character and Local Distinctiveness CO3 Areas of Outstanding Natural Beauty. CO4 Areas of Great Landscape Value. CO9 Biodiversity and Earth Science Diversity. CO10 Protection of Nature Conservation Sites and Species.</p>	<p>designated coastal zones.</p> <p>Conservation and sustainable use of natural resources.</p> <p>Potential discharges to air, land and water to levels and pollution to the environment.</p> <p>Loss of biodiversity including geological diversity and value to the community.</p>
The Isles of Scilly Local Plan 2005	<p>The SMP2 should take into account the overall vision of the Plan to ensure the issues of the Isles of Scilly are addressed and not isolated from the other management areas of the SMP2.</p>	<p>Conservation of the AONB and Heritage Coast.</p> <p>Protection of designated sites</p>
Cornwall Biodiversity Action Plan (BAP)	<p>The SMP2 should have in regard the effects of the policies on the BAP species and habitats. It aims to:</p>	<p>Species loss through inappropriate and non sustainable development.</p>

Each (ex) district or borough council in the area has environment conservation policies within their Local Plan documents relating to international and national designations and earth science and heritage designated sites. These policies, generally state that development proposals, which would adversely affect the sites, will not be permitted.

4.3 Earth Heritage

The geology of Cornwall and Isles of Scilly is dominated by rocks that belong to the Devonian and Carboniferous periods of geological time. The Devonian rocks comprise mudstones and volcanic lavas and ashes (tuffs). Carboniferous geology in the region includes thick deposits of mudstones, sandstones and some limestones, the period also resulted in the formation of outcrops of the granite give rise to acidic soils which support moorland, peat bogs and acid grassland, such as at the Lizard Peninsula.

Apart from rocks of the Lizard Peninsula and the Devonian and Carboniferous slates and mudstones, there is a small outcrop of marine sands and clays of Tertiary age at St Erth. The last two million years of time, covering the so-called Ice Age, is represented in the county by raised beach deposits and shattered rock debris (known as head) in valley bottoms and on slopes formed under tundra-like conditions.

4.3.1 Geological Features of Importance

There are a number of sites of geological interest within the Cornwall and Isles of Scilly SPM2 area; this includes 62 SSSIs designated for their geological interest, which are also Regionally Important Geological Sites (RIGS). These sites are identified in Table 4.5 as either having earth heritage or supralittoral rock features of interest.

Table 4.5 Geographical SSSIs within the SMP Study Area

Name	Hectares	% Meeting SSSI PSA	Reason for unfavourable Condition
Penlee Point	1.8	100%	N/A
St. Michael's Mount	2.55	100%	N/A
Harbour Cove	29.1	100%	N/A
Duckpool to Furzey Cove	87.29	100%	N/A
Stepper Point	1.6	100%	N/A
Mullion Cliff to Predannack Cliff	108.5	100%	N/A
Porthcew	9.6	100%	N/A
Cameron Quarry	0.47	100%	N/A
Folly Rocks	2.4	100%	N/A
Godrevy Head to St Agnes	627.4	100%	N/A
Coverack Cove & Dolor Point	5.63	100%	N/A
St Erth Sand Pits	3.9	100%	N/A
Cudden Point to Prussia Cove	15.88	100%	N/A
Pentire Peninsula	113.7	100%	N/A
Trebetherick Point	20.6	100%	N/A
Cuckoo Rock to Turbot Point	102.54	100%	N/A
St. Agnes Beacon Pits	7.9	100%	N/A
Tater-Du	4.8	100%	N/A
Penhale Dunes	1070.4	100%	N/A
Penlee Quarry	25.8	100%	N/A
Porthleven Cliffs	8.8	100%	N/A
Gerrans Bay to Camels Cove	139.5	100%	N/A
Rosemullion	20.5	100%	N/A
Meneage Coastal Section	79.73	100%	N/A
Trevone Bay	9.4	100%	N/A
West Lizard	776.28	100%	N/A
Boscawen	8.83	100%	N/A
Trevaunance Cove	6.85	100%	N/A
Bedruthan Steps & Park Head	80.8	100%	N/A
Kingsand to Sandway Point	6.7	100%	N/A
Higher Moors & Porth Hellick Pool (St Mary's)	16.2	100%	N/A
Porth Seal (St Martin's)	1.05	100%	N/A
Peninnis Head (St Mary's)	16.1	100%	N/A
Watermill Cove	0.48	100%	N/A
Eastern Isles	83.8	100%	N/A
Chapel Down (St Martin's)	34.9	100%	N/A
Porthloo	0.66	100%	N/A
White Island (off St Martin's)	16.55	100%	N/A
Castle Down (Tresco)	58.1	100%	N/A
Gugh	37.7	100%	N/A
Treen Cliff	49.3	100%	N/A
Kennack to Coverack	265.7	100%	N/A
Coverack to Porthoustock	173.46	100%	N/A
Aire Point to Carrick Du	704.81	100%	N/A
Bude Coast	92.5	100%	N/A
Tintagel Cliffs	221.8	100%	N/A
Cligga Head	113.5	100%	N/A
Tean	121.3	100%	N/A

Name	Hectares	% Meeting SSSI PSA	Reason for unfavourable Condition
Gwithian to Mexico Towans	371.1	99.9%	Planning permission - general
Baulk Head to Mullion	152.28	99.52%	N/A
Boscastle to Widemouth	639	94.71%	Undergrazing
Trevoze Head And Constantine Bay	158.5	79.66%	Undergrazing
Porthleven Cliffs East	13.1	60.5%	Inappropriate coastal management (concrete coastal defences)
Caerthillian to Kennack	141.4	89.42%	Not currently available
Tremearne Par	14.54	31.08%	Earth science feature removed
Loe Pool	128.7	22.5%	Water pollution - agriculture/run off, Water pollution - discharge
Wheal Penrose	0.87	0.0%	Soil and vegetation processes

In addition to these Geological SSSIs and RIGs, the Geological Conservation Review has identified sites of national and international importance needed to show all the key scientific elements of the Earth heritage of Britain. These sites display sediments, rocks, fossils, and features of the landscape that make a special contribution to our understanding and appreciation of Earth science and the geological history of Britain, which stretches back hundreds of millions of years (Joint Nature Conservation Committee).

There are over 70 of these sites in Cornwall and 12 on the Isles of Scilly. Examples of each of the sites which display the key scientific elements of earth heritage are given in Table 4.6 (Joint Nature Conservation Committee).

Table 4.6 Examples of key scientific elements of earth heritage in the SMP area

Name	Block (example of earth heritage)
Cornwall	
Bedruthan Steps	Silurian - Devonian Chordata
East Portholland - Long Point - Cadythew Rock	Marine Devonian
Folly Rocks (Praa Sands)	Igneous Rocks of South-west England
Godrevy Point	Variscan Structures of South-West England
Boscawen	Quaternary of South-West England
Loe Bar	Coastal Geomorphology of England
St Erth	Neogene
Wheal Penrose	Mineralogy of South West England
Isles of Scilly	
Battery (Castle Down)	Quaternary of South-West England
Isles of Scilly	Coastal Geomorphology of England

5 LANDSCAPE AND CHARACTER

Landscape character is an important national resource that is part of our natural and cultural inheritance, widely appreciated for its aesthetic beauty and contribution to regional identity. Landscape character gives us a sense of place. The recognition of coastal landscapes values is critical to the management of our shoreline, since the consequences of our actions is the potential to radically alter the coastal landscape.

5.1 Landscape and Character assessment

Landscape Character Assessment is an approach to understanding the differences between landscapes and can serve as a framework for decision making that respects local distinctiveness.

The following information is taken from the Cornwall and Isles of Scilly Landscape Character Study 2005-2007 Overview and Technical Report (White Consultants and Diacono Associates, 2007)

At the national level, seven joint character areas have been identified which contribute to our understanding of the distinctive nature of the landscape within the county:

- Bodmin Moor
- Carnmenellis
- Cornish Killas
- Hensbarrow
- The Culm
- The Lizard
- West Penwith

The vision of the Cornwall and Isles of Scilly Landscape Character Study 2005-2007 includes that:

- Cornwall and the Isles of Scilly will be a place where the character of the distinctive and valued natural and cultural landscapes, seascapes and the built environment will be protected, conserved and enhanced over time, contributing to a high quality of life;
- Landscapes and seascapes will be vibrant, viable and well managed and elements important to their distinctive character and diversity conserved.....Elements and features that will be given particular consideration will include Cornish hedges and gateways, geological features such as tors and cliffs, prehistoric and industrial heritage features including quoits, harbours and mine buildings, coastal heath, dunes and beaches, rias and estuaries, inland waterbodies and wetlands, moorland, deciduous woodland and tress cover, permanent and culm pasture, rural settlement and lanes.

5.2 Landscape designations

Landscape designations can help determine what it is important and manage landscape to achieve the vision of the Cornwall and Isles of Scilly Landscape Character Study.

Areas of Outstanding Natural Beauty (AONB) within the Cornwall and Isles of Scilly SMP2 boundary include the Cornwall AONB and the Isles of Scilly AONB. This designation promotes the conservation and enhancement of the natural beauty of an area. This includes protecting its flora, fauna, geological and landscape features.

The Cornwall World Heritage Site (WHS) consists of the most authentic and historically significant surviving components of the Cornwall and West Devon Mining Landscape from the period 1700 to 1914. WHS are designated as such because they have an 'outstanding universal value', which is so exceptional that it transcends national boundaries and is of the highest importance to the international community as a whole (Operational Guidelines for the Implementation of the World Heritage Convention 2005).

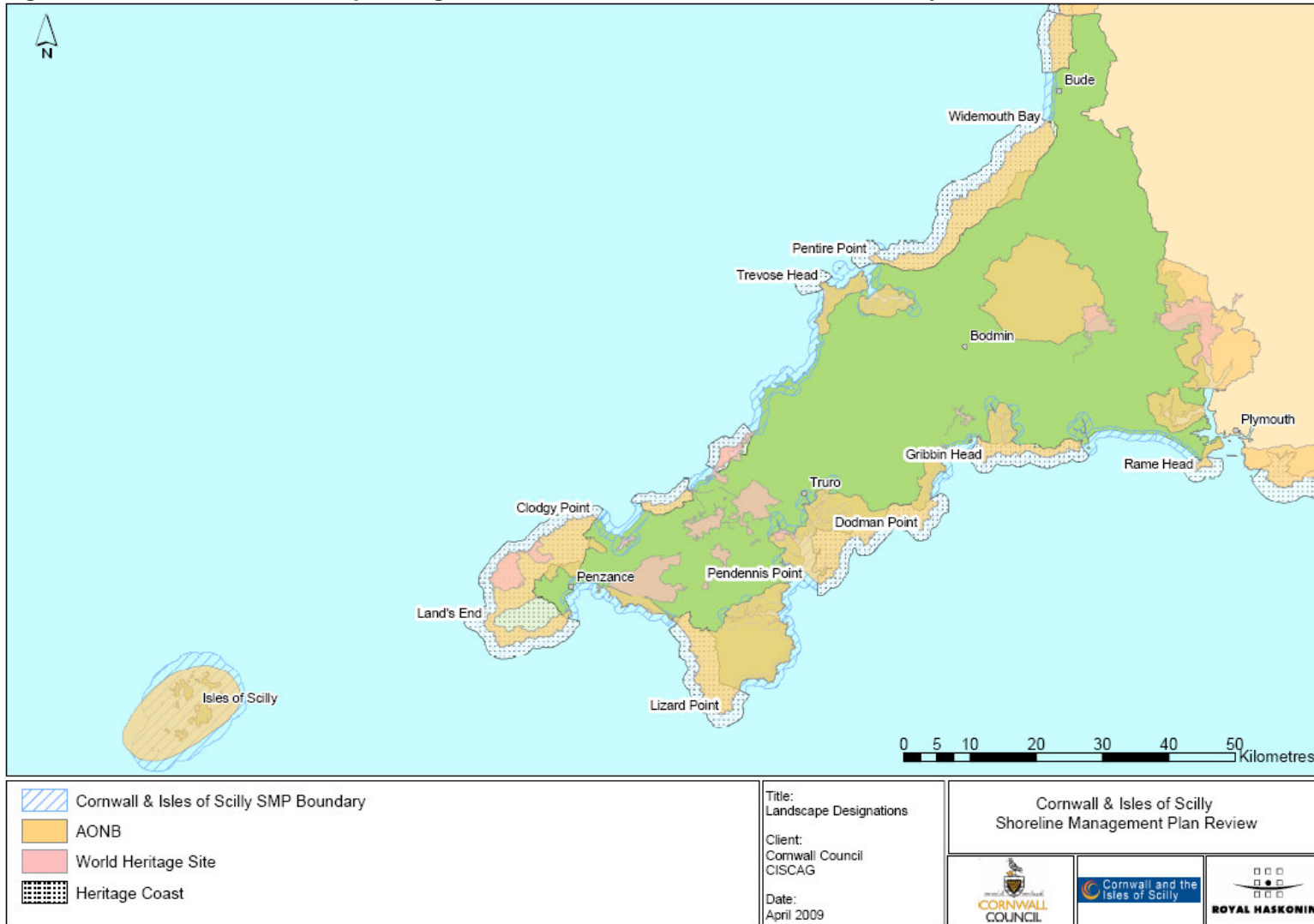
The majority of these mining landscapes are situated away from the coast however the following are within the SMP2 area; Port of Hayle, the area around St Just, St. Agnes and district of Tregonning and Gwinear with Trewavas, which is a mostly inland area but has a small coastal section around Wheal Prosper and Trewavas Cliff.

There are also non-statutory landscape designations in the SMP area including Heritage Coast sections, of which there are 11 in the SMP study area. These agreements between the relevant maritime local authorities and Natural England aim to protect coastline of special scenic and environmental value from undesirable development (<http://www.britainexpress.com/countryside/coast/>).

The Heritage Coast areas include:

- Rame Head
- Gribbin Head – Polperro
- The Roseland
- The Lizard
- Isles of Scilly
- Penwith
- Godreavy – Portreath
- St. Agnes
- Trevoze Head
- Pentire Point – Widemouth
- Hartland

Figure 5.1 Selected landscape designations within Cornwall and the Isles of Scilly



6 HISTORIC ENVIRONMENT

The historic landscape and the heritage features within it, provide a tangible link between the past and the present form of the natural and built environment. The historic landscape character types in Cornwall most relevant for the SMP are Rough Ground (coastal and dunes) and Intertidal and inshore water. The following text summarises the descriptions of these landscapes, developed from texts prepared in 1994, 1998 and 2002 by Peter Herring for the Cornwall Character Assessment.

A narrow band of coastal rough ground runs along most of the Cornish coast and is classed as unenclosed sloping ground beyond enclosed fields but above precipitous cliffs. This type of ground is a result of summer grazing, turf-cutting and extractive industry over thousands of years of human activity. Today it is almost entirely neglected with little grazing, with access provided by the South West Coast path.

Dunes, locally known as Towans are an apparently natural habitat which has been influenced by human activity mainly through summer grazing. Some dunes contain ruined mines (Perran Sands), old industrial complexes (for example at Upton Towns near Hayle) and today are used for the military, and tourism and recreation uses (golf, caravan parks). Often highly important prehistoric and medieval features are buried beneath Dunes.

Intertidal and inshore water is the ground between high and low water on the shore and in tidal estuaries. This ground is made up of sand, silt, mud or rock and can contain important archaeological remains either at the surface or buried. Most human activities in these areas were related to maritime activities (e.g. quays, breakwaters) or prehistoric periods where the current intertidal areas were once land (e.g. submerged forests).

Within these landscape types the individual features present provide an understanding of coastal evolution in response to human activity, maritime heritage and also the way in which the coastline has determined patterns of development. The protection and management of heritage features is therefore essential to maintain the social and historical values of the coast.

Heritage features are important in defining the identity of areas and in attracting visitors to features of national or regional interest, for example St Michael's Mount.

6.1 Assessment of the historic environment

The contribution of the historic coastal environment toward both the local and regional economies is very significant and therefore of strategic importance. Iconic sites such as St Michael's Mount, Tintagel, and Pendennis Castle are not just synonymous with Cornwall, but are also extremely important economically, in drawing visitors to the region.



Visitors to St Michael's Mount wading across the causeway

Scheduled Monuments (SMs) are historic sites of national importance, which affords them legal protection. There are over 1,800 SMs present within Cornwall, with 213 within the SMP study area. The Isles of Scilly alone has over 230 SMs, the highest density per hectare of any English authority (Isles of Scilly Council). There is also a wealth of listed buildings, shipwrecks and other marine archaeology around the Isles of Scilly archipelago and the Cornish mainland.

English Heritage and Historic Environment Teams within Cornwall Council are central in managing, monitoring and advising upon much of the heritage that exists. The National Trust also plays a central role and are owners and custodians of an extensive number of historic coastal sites across mainland Cornwall.

The ancient historic environment that is typified by Bronze Age barrows, Iron Age hill forts, Neolithic stone circles, quoits and cairns, is characteristic of, and heavily associated with Cornwall (particularly the Penwith Area) and the Isles of Scilly. However, although examples of this ancient heritage can be observed at the coast, it is not what best characterises the narrow coastal zone considered within the scope of the SMP review. It is the historic environment that is uniquely *coastal* in its nature, which is most important, as once lost, there are very few examples of this heritage further inland.

A number of key categories can be identified which represent this unique coastal heritage:

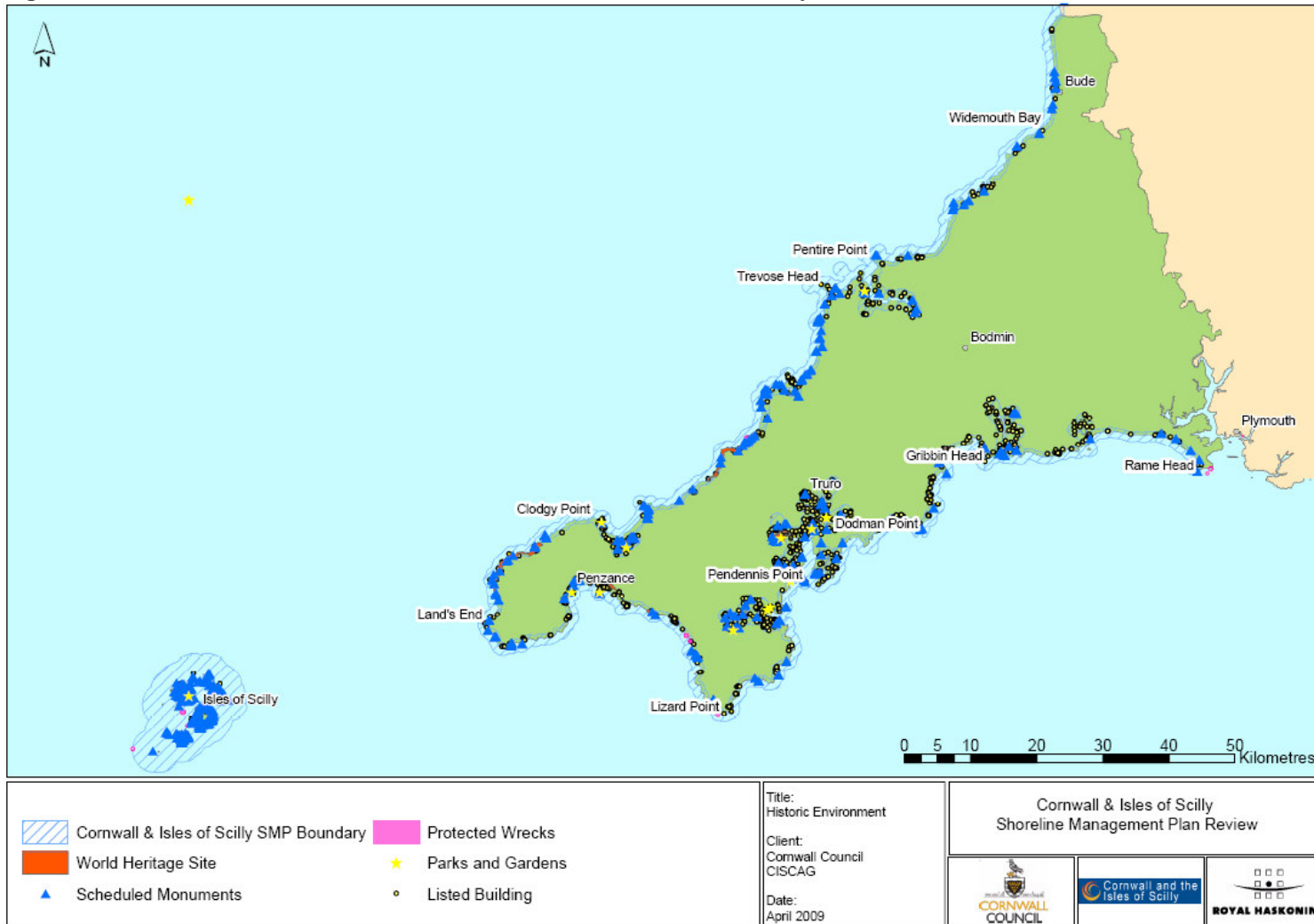
- Historic ports & harbours (connected to both mining and fishing industries);
- Fishing industry infrastructure (e.g. Pilchard canning factories);
- Safety at Sea (e.g. Lighthouses, Lifeboat stations, beacons, coastguard stations);
- Military installations and Civil War defences;
- Cliff Castles;
- Mining heritage (including the World Heritage site and a number of harbours);
- Communications (e.g. Porthcurno); and
- Submerged forests.

The key archaeological assets, in particular the Cornish Mining World Heritage Site, Scheduled Monuments (SMs), Historic Parks and Gardens, Protected Wrecks, Conservation Areas, Listed Buildings within the Cornwall and Isles of Scilly SMP2 study

area are presented in **Figure 6.1**. These are further discussed in Sections 6.1.1 and 6.1.2 having been spilt into terrestrial and marine features.

In addition to the discussion in Sections 6.11 and 6.12, it should be noted that there are numerous unscheduled and undesignated archaeological sites across the SMP2 study area, and there are likely to be many more currently unknown sites that in the future could be revealed by development or ongoing coastal erosion, or affected by coastal management policies.

Figure 6.1 The Historic Environment of the Cornwall and Isles of Scilly SMP2



6.1.1 Terrestrial

Most of the key archaeological assets in the SMP area are found on the shoreline or foreshore.

The following SMs have been identified as being key sites for consideration within the SMP review through consultation with English Heritage, Cornwall Council and the National Trust. This is because they are known to be at risk from coastal erosion and/or flooding.

- The Garrison on St Mary's, Isles of Scilly;
- St Michael's Mount (particularly the causeway and harbour structures);
- Godrevy;
- Gunwalloe;
- Pendennis Castle (including the shoreline gun battery);
- Tintagel Castle;
- Marazion Marsh (submerged forest);
- Samson & Nor Nour, Isles of Scilly;
- Kennack Sands (WWII site);
- Jubilee Pool, Penzance.

English Heritage also maintains a register of Historic Parks and Gardens, to make sure that these contributions to the landscape's features and qualities are protected. There are 15 such sites contained within the study area, as shown on **Figure 6.1**.

There are areas of special architectural or historic interest, whose character or appearance should be preserved or improved, that have been identified as Conservation Areas. There are in excess of 40 Conservation Areas within the SMP area. In addition, there are many hundreds of Listed Buildings within the SMP2 study area, and these are presented in **Figure 6.1**.

6.1.2 Marine

The marine environment has played a major role in shaping Cornwall and the Isles of Scilly as we know them today. Features include:

- maritime infrastructure - harbours, slips, quays,
- intertidal sites - submerged forests/landscapes

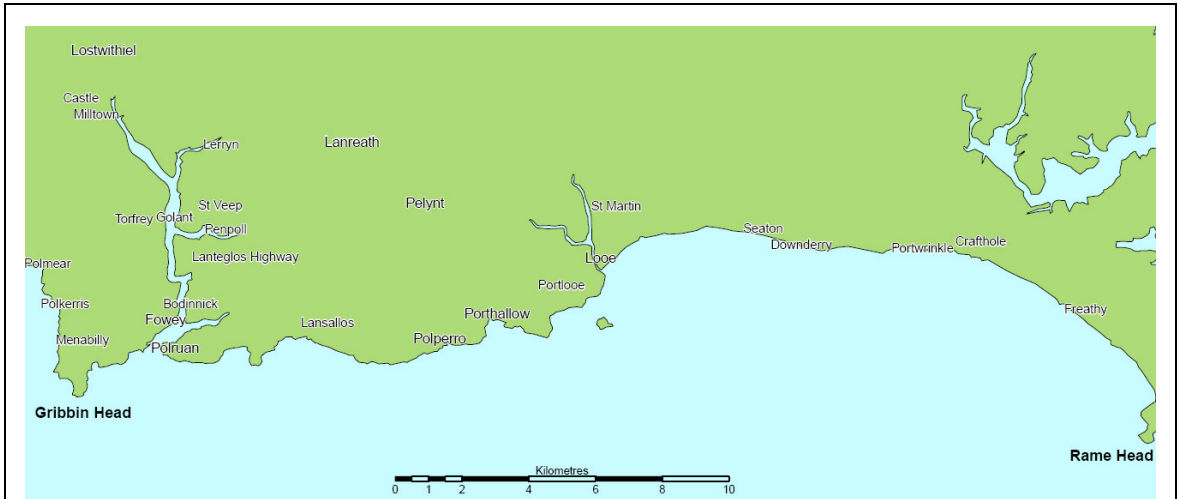
There are a large number of wrecks around the coast, some of which are protected and include the following:

- Loe Bar;
- Schiedam;
- HMS Colossus;
- Tearing Ledge;
- Hanover;
- Rill Cove;
- Bartholomew Ledges;
- Royal Anne Galley;
- St Anthony; and
- Wheel Wreck.

7 DESCRIPTION OF THE COASTLINE AND THEME SUMMARY

This section provides information about the coastline in more detail. Sections 7.1 to 7.10 describe the values of a series of sections of coastline split into characterisation areas.

7.1 Rame Head to Gribbin Head



Coastline Description

This section of coast generally faces south or south west. It is mainly comprises hard, rocky cliffs fronted by shore platforms, sand/shingle beaches and incised valleys with streams discharging to the coast. The largest beach is Long Sand, with only a few small pocket beaches including Millendreath Beach and Seaton Beach.

The Fowey estuary is present within this area. The estuary is wooded, with the tidal limits extending to settlements of Lerryn and Lostwithiel.

Development and settlements

Development increases towards the west, with the coast being more developed around the settlements of Downderry, Seaton, Millendreath, Plaidy, East Looe, West Looe and Hannafore, and again at Polperro, Talland and Polruan and Fowey. The main settlements are Fowey and Looe.

Human activity

Tourism and recreation are important elements in the area, although relatively less so than for other areas of the coastline. The towns of Fowey and Looe attract visitors, particularly for events such as Fowey regatta week.

There are caravan parks in the area.

Commercial interests other than tourism and recreation in the area are the commercial fishing fleet at Looe and agriculture.

Natural environment

This is a relatively undeveloped rural and agricultural coast comprised mainly of grassland and arable land, with some woodland. This area is valued for its coastal habitats, rare plants, historic sites and important geomorphological processes.

Nature conservation interests in the area include the Polruan to Polperro SAC of international importance, a vegetated shingle beach at Lantic Bay, a number of SSSIs including Polruan to Polperro, Eglarooze Cliff, and Rame Head and Whitsand Bay SSSI. The Cornwall Area of Outstanding Natural Beauty (AONB) and the Rame Head, and Gribbin Head to Polperro sections of Heritage Coast are the major landscape designations in the area.

Historic environment

The Rame Peninsula is the site of an important cluster of post-medieval fortifications including a group of scheduled monuments. There is also an Iron Age settlement at Rame and there are medieval field strips close to Tregantle fort. A group of Bronze Age barrows are situated close to the cliff east of Dwnderry, with other historic and archaeologically valuable sites including the Medieval Lamorna Chapel, a lighthouse at St Catherine Point, an eighth century church at Polruan and scattered archaeological remains between Polperro and the Polruan. Also present are St Catherines castle and block houses at Fowey and Polruan, and Palace Cove harbour and fish cellars.

The Conservation Areas in the area are:

- Looe
- Portwrinkle
- Polperro
- Boddinick
- Polruan
- Fowey
- Lerryn.

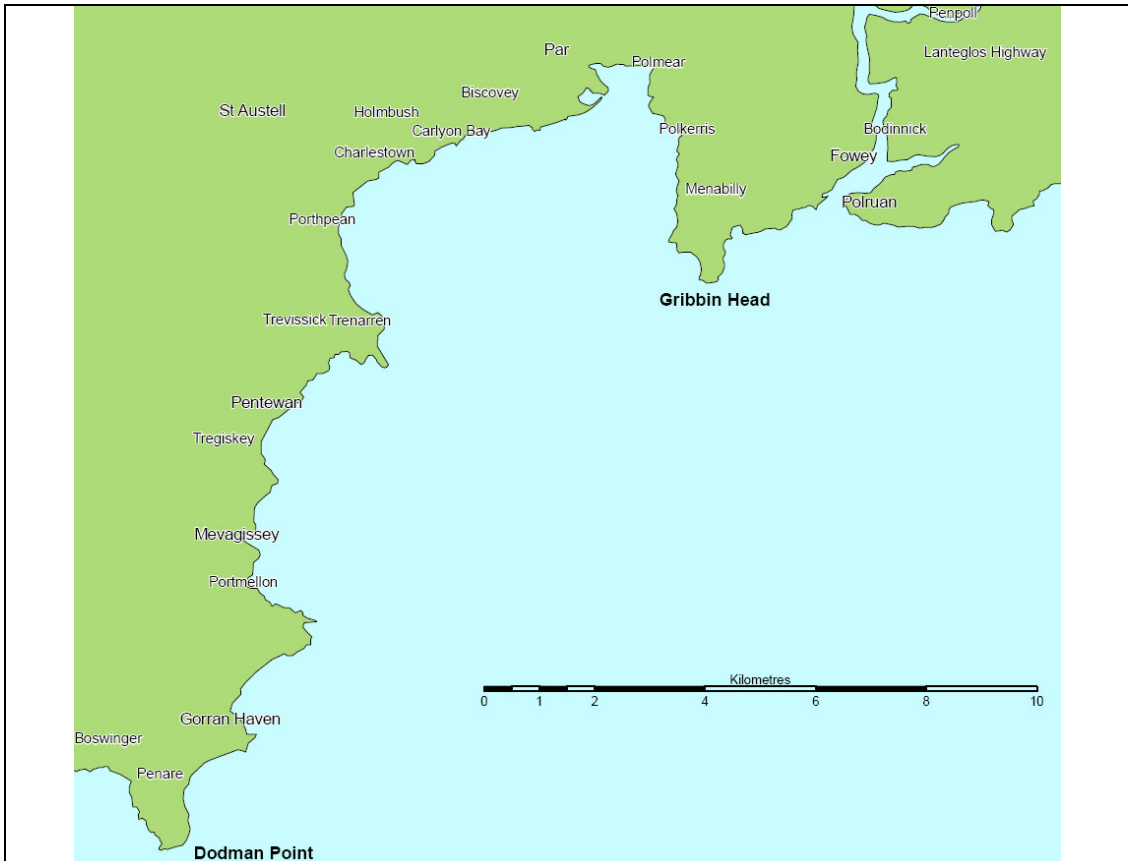
Marine environment

There are harbours at Portwrinkle, Looe, Fowey.

Erosion and flood risk

- Erosion at Dwnderry and Seaton
- Flooding of residential and commercial property at Looe and Fowey.
- Vulnerable cliff above Finnygook Beach, Portwrinkle
- Flood risk at Polperro (Watergate Harbour area)
- Shoredock habitat, Plaidy
- Flooding of property, car parks and gardens in Lerryn
- Flood risk at Lostwithiel
- Flooding at Polruan (Quay)
- Flood risk at Golant

7.2 Gribbin Head to Dodman Point



Coastline Description

This section of coastline includes St Austell Bay, which faces south and the section between Back Head and Dodman Point, which faces east.

St Austell Bay, between Gribbin Head and Black Head is a rocky embayment that is relatively protected and rich in sediment. The east facing coast comprises a series of rocky bays delineated by headlands and backed by hard cliffs that are quite variable in height, and exceed 100m in places.

The main beaches are Par beach and Carlyon Bay, which in recent centuries have received an influx of sediment from china clay works, which has promoted local beach accretion. Other beaches include Pentewan Beach, Great Penhaver Beach, and Bow /Vault Beach.

Development and settlements

The main settlements are the suburbs of St Austell, and Par/St Blazey. Smaller settlements are present at Carlyon Bay, Charlestown, Duporth, Pentewan and Mevagissey and Gorran Haven.

Human activity

Commercial activity related to the china clay industry is significant, but declining with the commercial shipping of china clay at Par moving to Fowey. Tourism and recreation are significant economic activities with visitors attracted to Charlestown and Mevagissey and caravan parks at Pentewan and Par Sands.

Natural environment

The coast is valued for its outstanding natural beauty (designated as AONB) and heritage coast; however there are few nature conservation designations, with just BAP Priority Habitat present (Saline Lagoons, and coastal flood plain and grazing marsh). There are five Regionally Important Geological Sites and one geological SSSI identified.

Historic environment

The Cornwall and West Devon Mining Landscape World Heritage Site has a site in this area (The Luxulyan Valley and Charlestown). Archaeological features include a Bronze Age barrow close to Gribbin Head, an Iron Age fort at Black Head, Chapel Point (medieval) and Dodman Point (Bronze Age and Iron Age). Also present are numerous barrows and Par, Charlestown and Pentewan are historic china clay ports.

The conservation areas are:

- Polkerris
- Charlestown
- Mevagissey
- Pentewan
- Gorran Haven

Marine environment

Par docks was a substantial china clay port. There are is also an active harbour at Polkerris and a silted and redundant harbour at Pentewan. Mevagissey and Gorran Haven remain active harbours. Charlestown Harbour is today a historic visitor attraction which retains a small working port and is has been used as a backdrop for television and films.

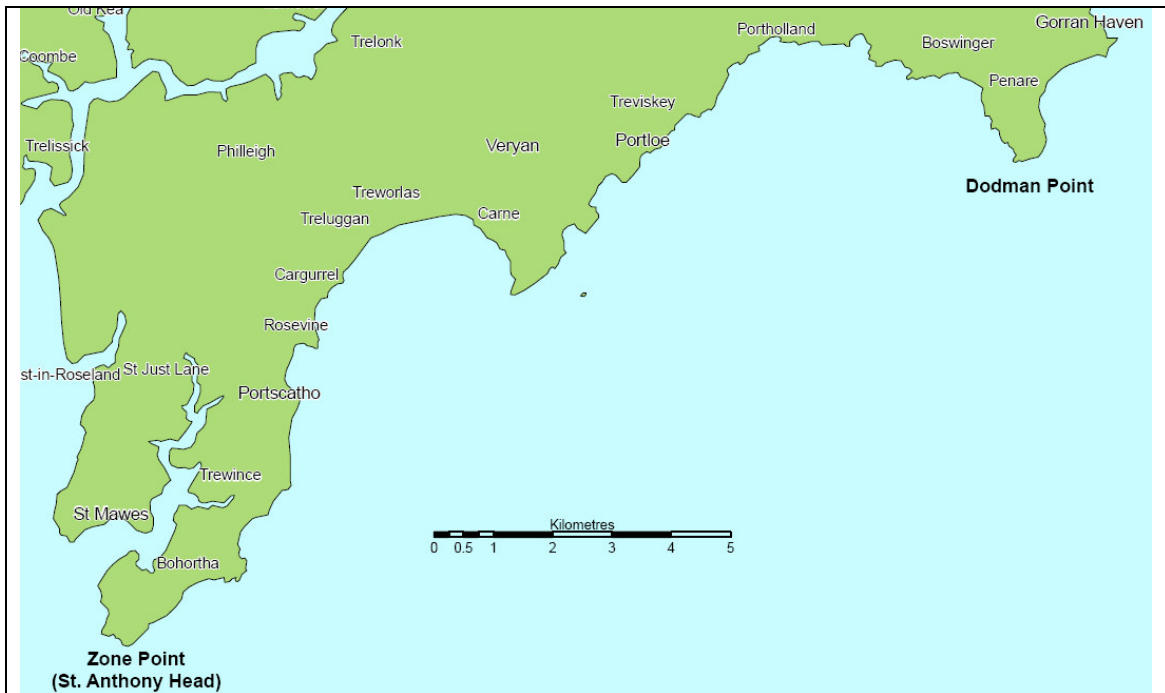
Erosion and flood risk

The main erosion and flood risk issues in the area are:

- Proposed developments at Carlyon Bay
- Cliff erosion and flooding at Carlyon Bay beach
- Erosion issues at Charlestown
- Vulnerability of the harbour at Charlestown
- Deterioration of the harbour at Pentewan
- Vulnerability to flooding at Mevagissey, Portmellon, Pentewan, Gorran Haven and Par/St Blazey
- Flood risk at Portmellon
- Erosion at Portmellon (road affected)
- Flood risk at Mevagissey
- SW Coast Path close to the edge between Gribbin Head and Polkerris
- Erosion between Duporth and Charlestown
- Footpath erosion at Spit Beach (near Par)
- Erosion and flood risk at Par Sands affecting caravan park
- Deterioration of harbour at Mevagissey
- Charlestown to Porthpean section of SW Coast path actively eroding

7.3

Dodman Point to Zone Point (St Anthony Head)



Coastline Description

This section of coast forms two bays (Veryan and Gerrans), which are divided by Nare Head. Each bay is essentially rocky, with shore platforms and hard cliffs, which range from being backed by a head slope to near vertical bedrock cliffs, with small local beaches that tend to form in the bays' northeast sections.

Development and settlements

This is a predominantly rural coast without significant industrial or residential developments.

Human activity

The primary activities here are farming, fishing (e.g. at Portloe and Portscatho) and tourism.

Natural environment

This coast is valued for many other reasons including its outstanding natural beauty, heritage, archaeology, geology, fossils and habitats. The Fal and Helford SAC of international importance is present.

Historic environment

There is some palaeo-environmental interest in a prehistoric submerged forest between Pendower and Porthscatho. Also present are numerous barrows, Portholland fish cellars, and Porthluney pillbox.

The Conservation Areas are:

- Portloe
- Porthscatho
- Gerrans


Marine environment

No significant marine features

Erosion and flood risk

- Erosion of defences at Portholland and Porthluney Cove
- Cliff erosion near Gorran Haven
- Flood Risk at Gorran Haven
- Cliff erosion at Pendower Beach impacting access road and property

7.4 Zone Point to Lizard Point

	<p>Coastline Description</p>
	<p>The coast between Falmouth estuary (Pendennis) and the Helford River faces east into Falmouth Bay. Although short, this coast is quite varied, and includes hard rock headlands, exposed open cliffs with shore platforms and small beaches protecting brackish lagoons at Swanpool and Maenporth. This coast also includes the main tourist frontage of Falmouth (from Pendennis Point to Swanpool), which is protected by structures against erosion. South of Swanpool there are few structural assets close to the water line or cliff edge.</p> <p>The Fal estuary is a ria or flooded river valley which is relatively deep and orientated on a north to south axis. The western side of the estuary have little development in relation to that on the eastern side.</p> <p>The Helford estuary is a flooded river valley, the upper reaches of which have formed muddy banks through settlement of fine material, which has washed off the land.</p>
<p>Towards its seaward limit the margins are increasingly sandy, eventually becoming small pocket beaches. There are occasional rock outcrops such as at Groyne Point. This is a diverse historic estuary. Its long waterside mainly fronts agricultural land and woodland, with a few small settlements.</p> <p>South of the Helford estuary to Lizard Point the coastline faces southeast is largely comprised of open hard rock sea cliffs, and includes lengths of narrow shingle beach and pocket beaches. This coast fronts an area that is essentially farming and tourism based. However there are large quarries and two fishing villages, Coverack and Cadgwith.</p> <p>Once south of the developed area around Falmouth the coastline is very rural with agricultural arable and grassland the dominant land use.</p>	
<p>Development and settlements</p>	
<p>Truro and Falmouth are the major communities in the area with much infrastructure associated with these urban areas including emergency response centres, schools, transport infrastructure electricity sub stations, telephone exchanges and waste water treatment works.</p>	
<p>The communities present on the Fal estuary are St Mawes, St Just, Feock, Mylor</p>	

Churchtown, Flushing, Penryn and Falmouth. The Truro River is tidal as far as Truro where a tidal gate forms a significant part of the city's flood defences.

Small communities are located along the estuary including Gweek and Helford. Some of the settlements have some vulnerability to the natural development of the estuary, and structures have been built to manage this.

Human activity

Settlements become increasingly sparse towards the Lizard peninsular, with agriculture, tourism and recreation the main activities away from the docks at Falmouth. The shell fisheries of the Fal and Helford are important commercial activities in this area.

Natural environment

There is a wealth of environmental designations in the area, many associated with the estuary environment, but also throughout the coastal environment through to Lizard Point. These include two SACs (Fal and Helford, The Lizard), ten SSSIs, four examples of BAP Priority habitats, and numerous geological SSSIs. The region includes important and diverse habitat types, including grassland, heathland, vegetated cliffs, dunes, intertidal and marine.

The Cornwall AONB and two sections of heritage cast are present; across some of the area; The Roseland, and The Lizard.

Historic environment

Historic features of interest include sites dating to both the civil war and the Iron Age at the coast limit of the Helford Estuary (Little Dennis), a prehistoric submerged forest nearby at Gillan Creek, a listed church dating to the middle ages at St Anthony-in-Meneage, and Romano British saltworks between Lowland Point and Coverack, the site of an Iron Age castle at Rosemullion Head, and of course Pendennis Castle and St Mawes Castles at the mouth of the Fal estuary. Also present is the Coastguard complex at St Anthony Head, parkland of Tregothnan and Trelissick beside the estuary, medieval bridge at Tregony, and port at Devoran. Historic oyster beds on the Helford, Nare point WWII and cold war features.

In addition a site of the Cornwall and West Devon Mining Landscape World Heritage Site is present (Perran Foundry complex) and there are a large number of Conservation Areas.

Marine environment

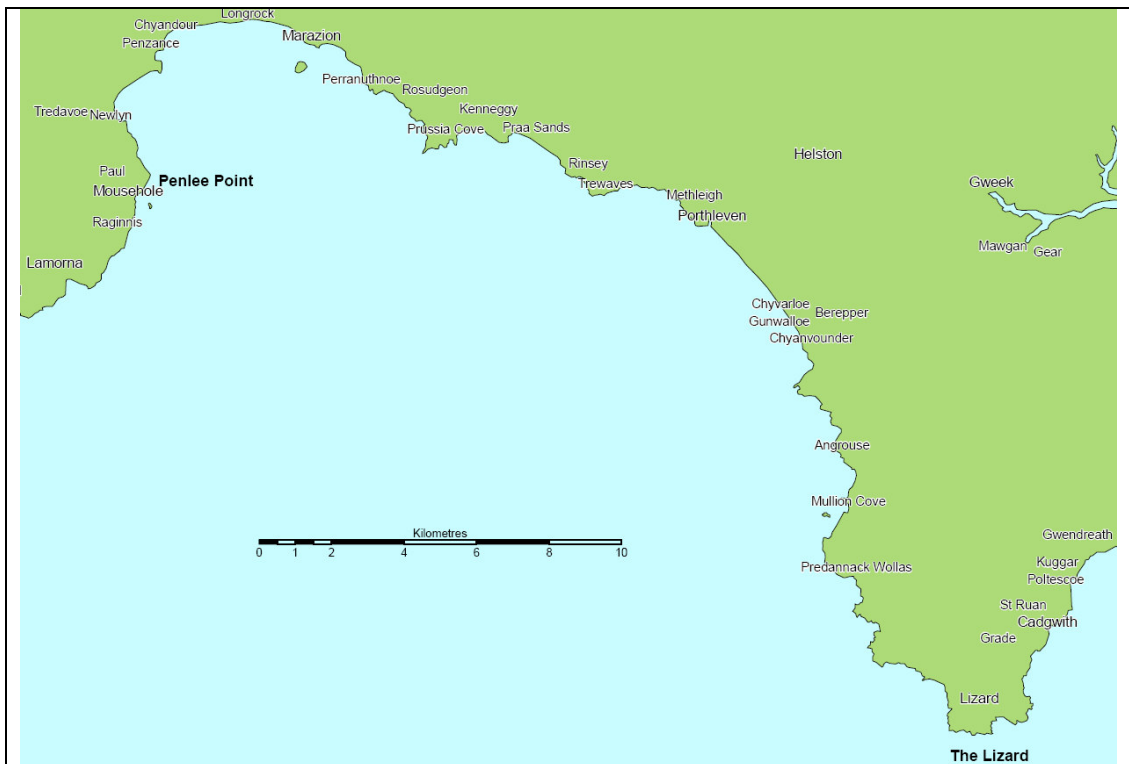
Several quays (e.g. at Geek, Porth Novas and Bishop's Quay) benefit from the Helford estuary's shelter. There is a ferry between Helford Passage and Helford Point. Defences are present in the Fal estuary in the form of sea walls, quays and harbours, with Falmouth Docks a harbour of international importance. Truro Port provides a commercial quay and leisure facilities.

Erosion and flood risk

- Erosion is occurring on the estuary between Flushing and Mylor.
- Flood risk at Cadgwith, Flushing, Falmouth, Penryn, Feock, Gillan, St Anthony, Carne, Truro and Perranaworthal, Bissoe and Gweek.
- Erosion at Dolar Point
- Erosion at Cliffs at Lestowder, The "Hera" at Gillan cove, and cliffs along south side of Helford river
- Erosion to SW Coast Path near St Anthony Head
- Flooding at Helford River Sailing Club
- Flood risk to A390 main link road between St Austell, Truro and Falmouth
- Falmouth – SAC and risks to associated estuarine habitats

- Pendennis Castle – most visited heritage site in Cornwall, vulnerability of the Gun Battery on the shoreline
- Erosion threat to defences at Gyllyngvase
- Coverack – erosion at north end of beach and cliff road
- Flood risk to the A390 road link between Falmouth and St Austell and at Tressillian.

7.5 Lizard Point to Penlee Point



Coastline Description

This section of coastline generally faces south west, with Mounts Bay orientated to face slightly to the south east. This region of coast faces the open Atlantic and is exposed to extremely energetic waves.

There are a series of beaches in the area including Polurrian, Poldhu and Church Cove, Praa Sands, Porthleven Sands, and the extensive beach fronting Longrock.

Development and settlements

The area is predominately rural in nature, with the notable exceptions being the development surrounding Mounts Bays and the town of Porthleven and the smaller communities of Mullion Cove, Praa Sands and Perranuthnoe and Goldsnithy and Marazion.

The towns of Penzance and Newlyn in Mounts Bay have heavily developed frontages supporting residential, industrial and commercial uses, with the A30, mainline railway and critical infrastructure such as police and ambulance response centres, electricity

sub stations, telephone exchanges, hospitals and schools.

Penzance Harbour is a significant asset supporting fishing activities, sheltered boat moorings, and access for larger vessels. Passenger services to the Isles of Scilly operate throughout the summer season (from March to October) carrying both day visitors and holiday tourists to the Islands. A freight service to the Islands is also operated all year from the harbour.

Human activity

Commercial activity includes the significant fishing fleet at Newlyn, Penlee quarry (which is protected with a masonry seawall), tourism, agriculture and service industries located in Penzance and Newlyn.

Natural environment

Away from Mounts Bay, agriculture and nature conservation are the dominant land uses, with the National Trust owning much land, particularly on the Lizard Peninsular, south of Porthleven and at St Michael's Mount.

The major nature conservation features of the area are the Lizard SAC, Loe Pool and Marazion Marsh. Marazion Marsh is designated as a SPA, SSSI and a RSBP Reserve. Loe Pool is a SSSI in valley of the River Cober and formed due to the presence of Loe Bar formed of sand and gravel. Other features include numerous geological SSSIs and RIGS.

The area is within the Cornwall AONB, but there are no sections of heritage coast designation here.

Historic environment

The major sites of historic importance include the iconic St Michael's Mount and features associated with the Cornwall and West Devon Mining Landscape WHS (Trewarvas Cliff (part of Tregonning and Gwinear Mining District)). There are a large number of Conservation Areas present. In addition there are numerous coastal barrows, 19th century fishing complex at Gunwalloe Fishing Cove, Gunwalloe Church set within dunes, Porthleven, Mullion and Newlyn historic harbours, Mounts Bay submerged forest, Penzance lido. The WHS interest is confined to the dramatically located engine houses along Trewarvas Cliff.

Marine environment

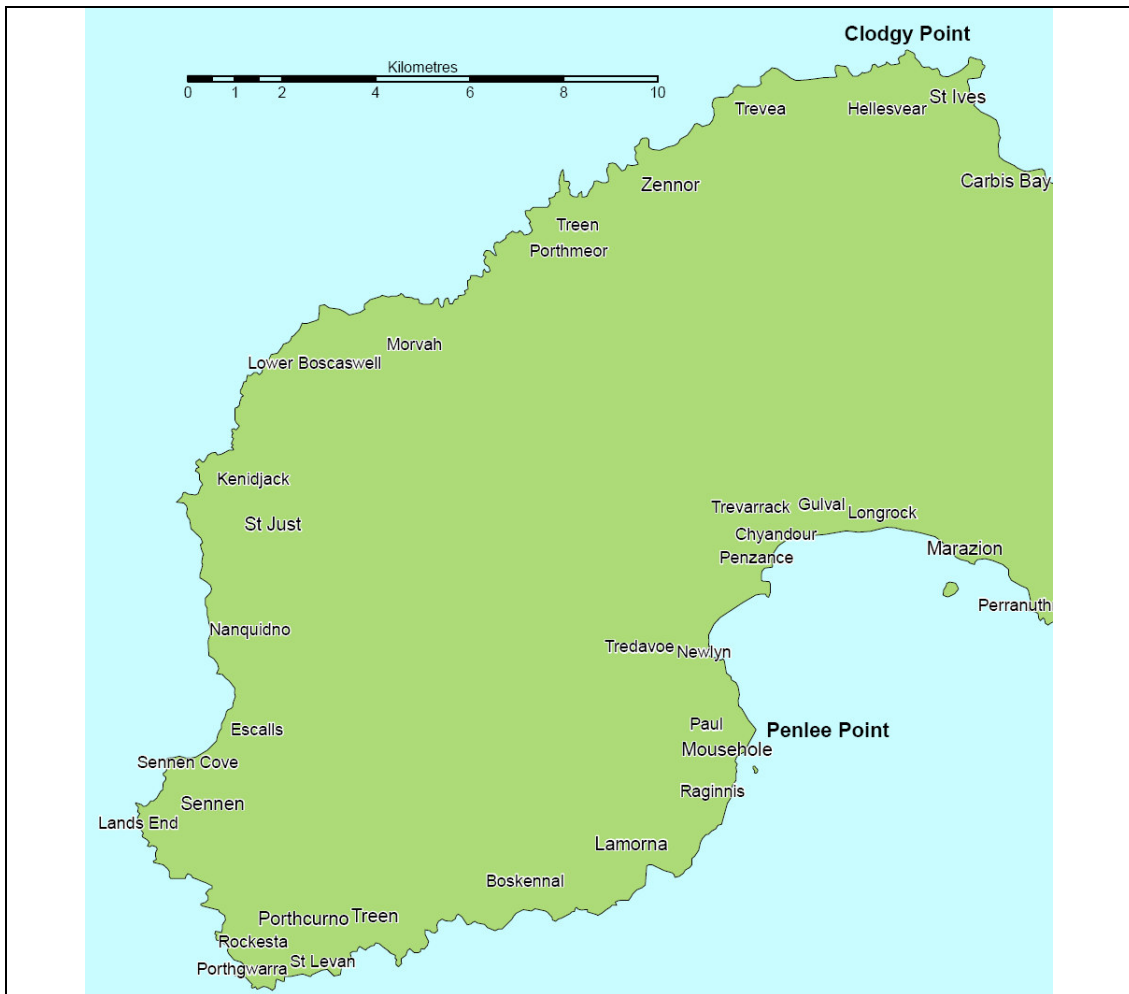
The harbour at Mullion is owned by the National Trust and a policy of no maintenance/repair has been agreed with the residents.

Erosion and flood risk

The main issues in the area are:

- Erosion in and around Church Cove and Praa Sands – threat to residential properties
- Wave action at Porthleven and Penzance
- Penlee Quarry and potential future development as a Marina
- Future access to St Michael's Mount using the causeway and instability of western harbour arm
- Abandonment of Mullion Harbour, return to natural cove
- Erosion to South West Water infrastructure at Marazion
- Erosion to Marazion cliffs (east) – erosion risks to properties
- Flood risk at Penzance, Tolcarne and Newlyn
- Lack of maintenance at Porthleven Harbour
- Gunwalloe – active erosion threats to heritage features
- Loe Bar – artificially profiles feature, risks to Loe Pool SSSI behind
- Degraded condition of Porthleven Harbour
- Perranuthnoe – erosion risks to properties
- Marazion Marsh – inundation risk – threat to freshwater reedbed
- Newlyn – harbour regeneration and height of defences
- Regeneration potential at Sandy Cove
- Poldu Cove - Sand extraction – possible link to increasing flood risk

7.6 Penlee Point to Clodgy Point



Coastline Description

This section of coast encompasses the most western tip of the Cornish Peninsular and includes Land's End and Cape Cornwall. The area is very rural and feels generally isolated, with a few scattered settlements mainly set back from the immediate frontage of hard rocky sea cliffs.

The shoreline turns from facing south east, towards Brittany, to south west, towards the Atlantic, west at Whitesand Bay and around to north and is extremely exposed to the dominant Atlantic wave climate and weather systems.

Whitesand Bay is the only significant bay with associated sand depositions in the form of beach and dunes that exist in the area with small beaches found at Portheras, Porthmeor, Treen and Porthglaze, where small streams enter the sea through steep sided valleys.

Development and settlements

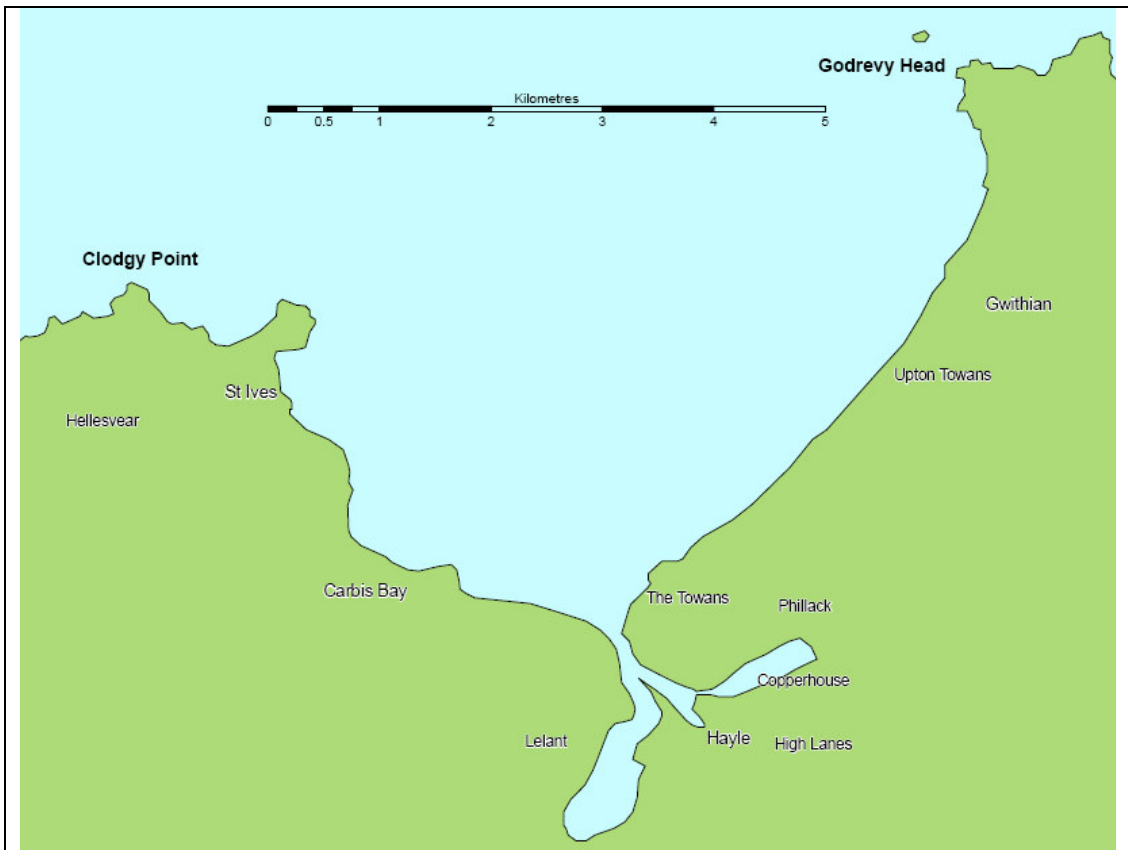
The largest settlement here is the defended harbour village of Mousehole; there are also small communities at Lamorna, which has a small harbour, Boskenna, Penberth, Porthcurno and Sennen Cove where a RNLI lifeboat station is located. St Just lies about 1km inland from the frontage.

There is limited infrastructure in this area however, the B3306 road from St Ives to Lands End follows the coastline and runs within approximately 100 metres of the cliffs at

Trevean.
Human activity
This region is mainly used for agriculture and nature conservation, however tourism is also important, particularly at Mousehole, Lands End and Porthcurno, which is close to the Minack open air theatre.
Natural environment
There are a small number of nature conservation features present, with geological SSSI and RIGS being the major features of interest.
Historic environment
<p>This area is famous for its well-preserved examples of tin and copper mine engine houses in the St Just Area forming part of an extensive terrestrial and submarine mining landscape recognised through its World Heritage Site status (St Just Mining District).</p> <p>The south coast contains the historic harbour of Mousehole and fishing cove of Penberth. Porthcurno is significant as the landing place of submarine telegraph cables and associated telegraph station. South of Mousehole is a network of precariously placed coastal market gardens, consisting of tiny enclosures, often hedged by fuchsia bushes or high stone walls. The Minack theatre is a prominent landmark. Numerous prehistoric features dot the whole of the coastline, including numerous cliff castles, settlements and field systems. The north coast is celebrated as a landscape which has not lost its original prehistoric field pattern.</p> <p>There are also a number of Conservation Areas present.</p>
Marine environment
There is a small harbour at Lamorna, and the RNLI Lifeboat at Sennen Cove.
Erosion and flood risk
<ul style="list-style-type: none"> • Sennen Cove exposed to severe weather and tidal surge exacerbating flood risks. • Flooding at Cape Cornwall and Penberth • Erosion at Cape Cornwall • Lamorna Cove – privately owned quay structures in poor repair, wave run-up and flood risk to residential properties.

7.7

Clodgy Point to Godrevy Point



Coastline Description

This section of coastline encompasses the whole of St Ives Bay. The area contains all of the beaches, harbours and cliffs of the coastal towns of St Ives, Carbis Bay and Hayle. This includes the sandy beaches of Porthmeor, Porth Gwidden, St Ives Harbour and Porthminster. It also includes the large extensive sandy beaches of Carbis Bay, Porth Kidney, Hayle, Gwithian and Godrevy, along with the associated dune systems (towans) of Hayle, Riviere, Mexico, Phillack, Upton, Gwithian and Godrevy. It also includes the Hayle Estuary.

Development and settlements

The towns of St Ives, Carbis Bay and Hayle are densely populated areas, with development significantly reducing on the coastline north east of Hayle, being made up of the extensive sand beaches and dune systems that run towards Godrevy Point. The developed area contains much infrastructure including the rail link between St Ives and St Erth and the raised A30 truck road skirting the Hayle estuary. Schools, emergency response centres, care homes, electricity sub stations and Hayle sewage treatment works are all within close proximity of the frontage.

Human activity

Tourism is the major source of income particularly for St Ives, with recreation and hospitality industries thriving. A major feature of the town is the Tate St Ives Gallery, located just above Porthmeor Beach. The Hayle harbour area is under going a period of decline, but with a significant regeneration proposal under consideration. The off-shore Wave Hub is planned in this area.

Natural environment

A range of nature conservation designations exists along this frontage. These include

Local Nature Reserves at Gwithian Green, Gwithian Towans, Upton Towans and along the Red River Valley. Gwithian to Mexico Towans are designated as a SSSI, as is the Hayle Estuary. Godrevy Head is designated as a Geological SSSI. The Godrevy area is owned and managed by the National Trust and is an extremely popular site, attracting tens of thousands of visitors every year.

Historic environment

Historic features in the area include the harbours of Hayle and St Ives and features connected to the Cornwall and West Devon Mining Landscape WHS (The Port of Hayle). Important prehistoric and medieval settlements are associated with Godrevy and Gwithian, part preserved under the extensive dune system. Upton Towans contains the important remains of an extensive explosives works.

Marine environment

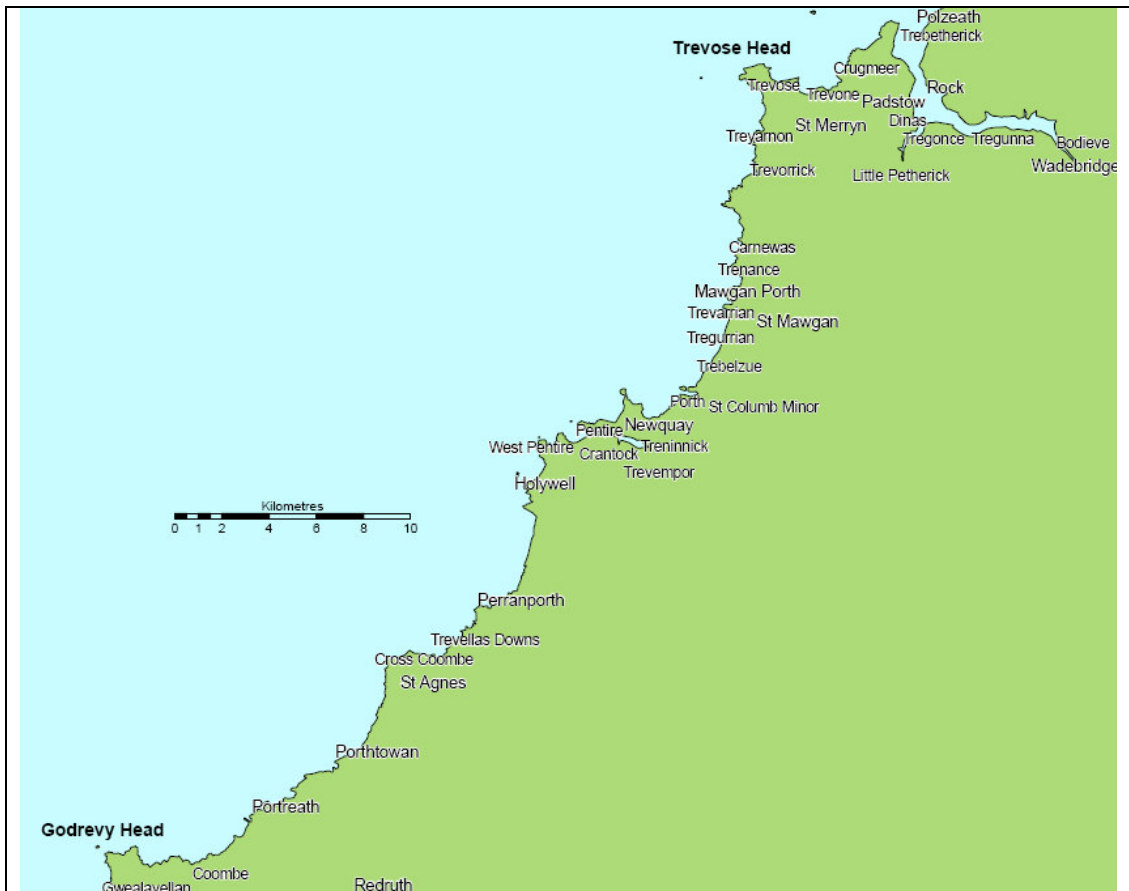
There are harbours at St Ives and Hayle.

Erosion and flood risk

The main issues in the area are:

- Potentially negative impacts on the fragile dune systems and designated areas, including exacerbating erosion of the frontal dunes through visitor numbers pressure.
- Hayle Harbour Regeneration
- Dredging of material from the Hayle estuary
- Flood risk at St Ives
- Wave Hub – potential conflicts or shoreline impacts
- Godrevy – erosion risks to cliffs and upper beach. Cliff top access at risk.

7.8 Godrevy Point to Trevoze Head



Coastline Description

This large section of coastline faces mostly north-west for the length of this unit and is therefore very exposed to the dominant Atlantic westerly wave climate and weather systems. Whilst dominated by long stretches of rocky cliffs and the prominent headlands there are large sandy beaches present at Portreath, Porthtowan, Chapel Porth, Perran Bay, Holywell Bay, Crantock and Fistral Bay. Perran Bay displays a particularly large beach and has the most extensive area of coastal dunes within the Cornwall and Isles of Scilly area, extending 2km inland at some points. Beaches also include Newquay town beaches, Porth, Whipsiderry, Watergate Bay, Mawgan Porth, Bedruthan, Porthcothan, Trevarmon, Constantine Bay and Booby's Bay.

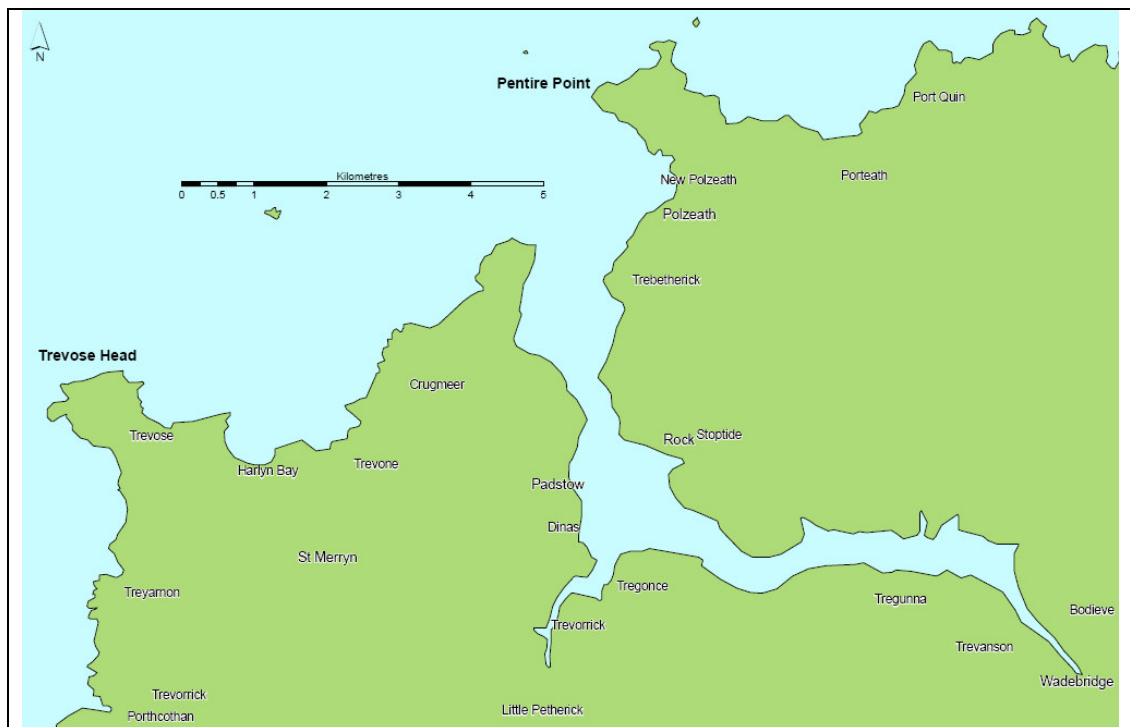
A small estuary (The Gannel) discharges into Crantock Bay directly adjacent to Pentire Point East. The Gannel has intertidal areas of sand flats and saltmarsh extending some 2km inland.

Development and settlements

The coastal settlements of note along this stretch of coastline are Portreath, Porthtowan, St Agnes, Perranporth, Holywell, Crantock, Newquay at Watergate Bay, Mawgan Porth, Porthcothan and Constantine Bay. Newquay is by far the most significant settlement within this area.

<p>Human activity</p> <p>Although the primary urban areas have historically developed around the original primary industries of fishing, agriculture and mining, the tourist industry now plays a key role in the local economy of all these areas. Perranporth and Newquay are particularly key, with Newquay being probably the most popular destination in Cornwall. Fistral Beach is particularly intensely used and is one of the most well known surfing beaches in the country. Alongside tourism and recreation, the main land use within the coastal zone is agriculture, with agricultural fields often extending to within a few metres of the cliff tops.</p>
<p>Natural environment</p> <p>A number of designations for conservation exist within this unit and it is one of the most comprehensively designated stretches of coastline of Cornwall. The entire area from Godrevy Point to St Agnes Head is designated as a SSSI (for both geology and habitat), as is Cligga Head further to the north. Trevaunance Cove is designated as a SSSI for its earth heritage value. Godrevy Point to St Agnes Head is also internationally designated as a SAC Annexe I habitat (Temperate Atlantic Wet Heaths). Bedruthan Steps and Park Head, and Trevoze Head and Constantine Bay areas are identified for their national importance. SSSI and SAC designations cover the entire Penhale Dunes complex.</p>
<p>Historic environment</p> <p>This stretch of coastline contains some of the largest known concentrations of Bronze Age barrows, notably Kelsey Head, Pentire and Constantine Bay. It also has some substantial and highly visited Iron Age Cliff Castles, such as Trevelgue Head. Many of these sites are actively eroding. The dune systems at Penhale and Gear Sands preserve buried landscapes and settlements, including the iconic St Piran's Oratory. Dotted along the coast are a number of airfields, originating from the Second World War and some still in private use.</p> <p>The World Heritage Site covers a large area, from south of Porthtowan up to Perranporth (St Agnes Mining District) and also the port of Portreath (part of the Camborne/Redruth Mining District), reflecting the density of mining activity along the cliffs and represented by a number of iconic engine houses such as Wheal Coates.</p> <p>There is just one Conservation Area present at Crantock.</p>
<p>Marine environment</p> <p>There is a harbour at Newquay, with smaller quays at St. Agnes and Portreath.</p>
<p>Erosion and flood risk</p> <ul style="list-style-type: none"> • Flood risk at Perranporth including vulnerability to wave run-up • Wave action at Watergate Bay affects buildings at the beach • Flood risk at Portreath and poor repair of river bank wall and harbour • Erosion and sand dune damage at Portreath • Development at the north end of Fistral beach • Newquay, Towan Beach and harbour – exposure to wave damage, blue reef site, redevelopment potential, erosion around harbour and cliffs • Newquay Bay – general erosion and some cliff instability • Treyarnon to Constantine – cliff top properties with private defences – erosion risks. • Wave damage/sand dune migration/flooding at Porth, Mawgan Porth and Porthcothan.

7.9 Trevoze Head to Pentire Point



Coastline Description

Trevoze Head marks a temporary change in orientation of the coast from northward to eastward. Most of this unit therefore faces north and is slightly less exposed to the dominant westerly Atlantic conditions than the coast immediately to the south of Trevoze Head.

The coast in this unit continues to be dominated by hard cliffs and rocky intertidal areas, displaying wave cut platforms. There are four well-defined coves with sandy beaches – Mother Ivey’s Bay, Harlyn Bay, Trevone Bay and Hayle Bay (Polzeath).

A key feature within this unit is the mouth of the Camel Estuary. The wide mouth of the Camel discharges into Padstow Bay and enters the open sea between Stepper Point and Pentire Point.

Development and settlements

The primary settlement along the coastline is Padstow. Other communities of note are Harlyn, Trevone and Polzeath. The town of Wadebridge is the largest community when the Camel estuary is included, with infrastructure such as sewage treatment works, a health centre and schools in close proximity to the frontage.

Development along the estuary is mostly at Rock and Padstow, with the normal tidal limit extending on the River Camel beyond Wadebridge to Polbrock and on the River Allen (a tributary of the Camel) upstream of Sladesbridge.

Human activity

Agriculture, tourism and recreation dominate the land use adjacent to the shoreline; with the Camel trail a particularly popular cycling and walking attraction alongside the estuary. Padstow remains a working fishing village with harbour.

Natural environment

The Camel SAC of international importance is present in the upper reaches of the Camel estuary. Other nature conservation interests in the area including Trevoze Head, Trevone Bay, Rock Dunes, and Amble Marshes designated as SSSIs, BAP Priority habitats present. The area is designated Cornwall AONB and the Trevoze Head section of heritage coast is also present.

Historic environment

There are numerous Bronze Age barrows on the coastal strip. Numerous cist burials have been excavated at Harlyn Bay due to ongoing coastal erosion. There is a submerged forest at Daymer Bay, and an important coastguard complex at Hawkers Cove, Padstow harbour. The medieval bridge at Wadebridge marks the lowest crossing point of the Camel.

There are three Conservation Areas present:

- Wadebridge and Egloshayle
- Padstow
- Little Petherick

Marine environment

There is a harbour at Padstow, with boat yards at Wadebridge, and a popular sailing club at Rock.

Erosion and flood risk

Issues in the area include flood risks at Wadebridge, Sladesbridge, Padstow, Porthilly, Rock and Polzeath.

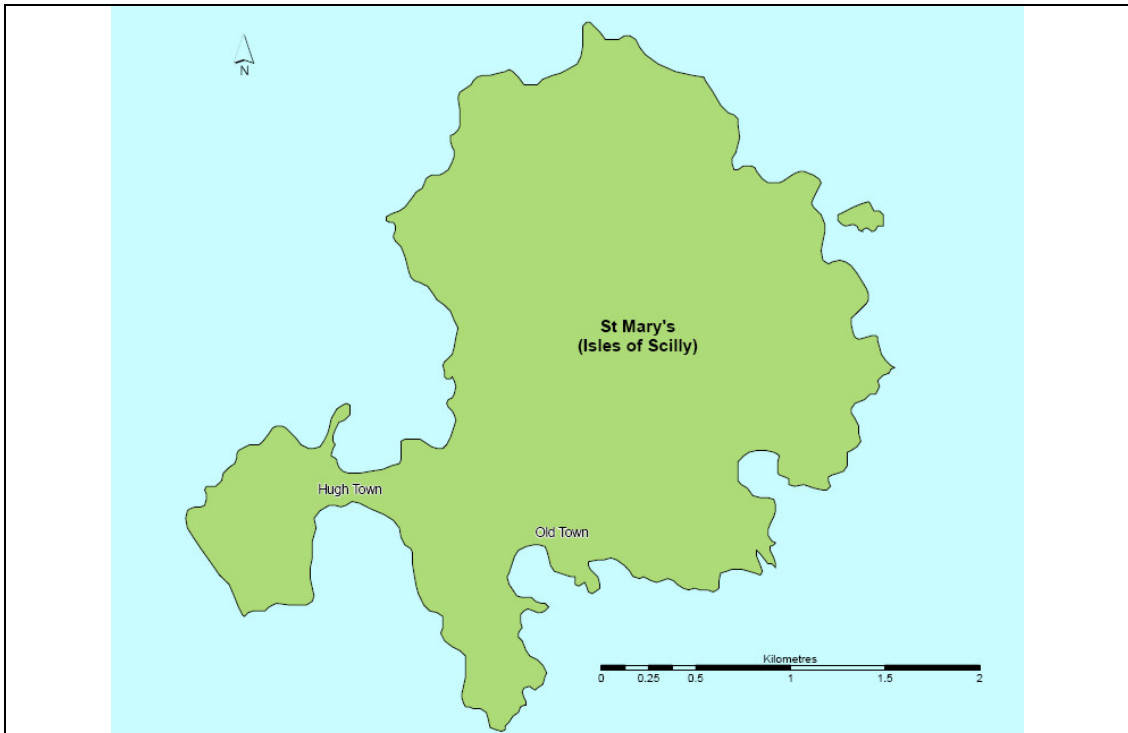
7.10 Pentire Point to Hartland Point

	<p style="text-align: center;">Coastline Description</p> <p>The coastline faces due west and is therefore very exposed to the westerly-dominated wave climate and weather systems of the Atlantic.</p> <p>The coastline is mainly rocky, with high cliffs and frequent steep-sided valleys are cut into the cliff line where small watercourses find their way to the coast. The exception to this is the sandy beach at Widemouth and the town beaches around Bude. Small beaches are found at Crackington Haven and Trebarwith Strand, Port Issac and Port Gaverne. There are also some sandy pocket beaches uncovered at low water around Tintagel and Bossiney</p>
<p>Development and settlements</p> <p>This large expanse of coastline is essentially rural, with small dispersed communities present such as at Port Quin, Port Issac, Port Gaverne, Tintagel, Bosccastle, Crackington</p>	

<p>Haven and Widemouth. The largest community present is Bude, with the coastline north of Bude to Hartland Point particularly undeveloped. There is a canal at Bude.</p>
<p>Human activity</p> <p>Cliff-top agriculture is the dominant land use adjacent to the shoreline. Tourism and recreation are also important in discrete locations along the coast, such as at Port Issac, Tintagel, Boscastle Bude and Crackington Haven.</p>
<p>Natural environment</p> <p>A number of designations exist to identify the national importance of the coastline in terms of its geological, ecological and archaeological interests. Some of the cliffed coastline in this area is designated as part of the Tintagel-Marsland-Clovelly Coast SA and SSSIs include Bude Coast and Steeple Point to Marsland Mouth.</p>
<p>Historic environment</p> <p>Tintagel Castle is a key feature of this section of coastline. It is managed by English Heritage and is identified as one of their primary historical sites. There are numerous Bronze Age barrows, Iron Age cliff castles including the Rumps, a submerged forest at Crooklets Beach, extensive coastal slate quarries, a Romano-British metalworking site at Duckpool, Hawkers Hut balanced on the cliffs at Morwenstow, and Bude Canal and sea gates. There are three Conservation Areas present::</p> <ul style="list-style-type: none"> • Port Isaac • Boscastle • Bude
<p>Marine environment</p> <p>Small fishing fleets are still operational from within the harbours of locations such as Boscastle</p>
<p>Erosion and flood risk</p> <p>Issues in this area include</p> <ul style="list-style-type: none"> • Degraded dune system at Widemouth • Parts of the Tintagel complex of historic remains are at risk from coastal erosion. • Wave action to Bude Canal lock gates • Flood risk at Bude • Damage to Boscastle outer breakwater • Bude and Crooklets – beach lowering. • Wave action and flood risk at Port Isaac and Port Gaverne

7.11

Isles of Scilly 1 St Mary's



Coastline Description

St Mary's is the largest of the granite islands that make up the archipelago of Scilly. It is effectively created from two granite outcrops, joined together by a sand spit (tombolo) upon which the principal urban area of Scilly, Hugh Town, is located. Much of Hugh Town sits at or below mean sea level. Elevations at the coast reach 30-40 metres in the north-west part of the island.

The coastline of St Mary's consists largely of rocky foreshore fronting cliffs and slopes. There are numerous sandy pocket beaches such as at Town Beach, Porth Mellon, Porth Hellick and Porth Loo. These are located in the less exposed areas and are generally backed by small areas of dunes, although these are absent where development has encroached onto the upper beach face. There are also sections wave-cut granite platforms and examples of shingle and cobble beaches backed by the low ram cliffs, together with resistant granite outcrops. The northern tip of the island, Bar Point, has a significant sub-tidal bar (Crow Bar) extending out from it in north-westerly direction.

Development and settlements

The principal urban area is Hugh Town. Water supplies on the island are limited and provided by ground water. Electricity is supplied from the national grid on the mainland, with St Mary's power station providing backup in emergencies. The Islands airport is also on St Mary's.

Human activity

Tourism is the Islands primary source of income, although traditional activities of fishing and farming are also significant. Tourism makes up 85% of the Islands' economy.

Natural environment

There are a number of nature conservation interests including the Isles of Scilly Complex SAC of international importance and Blanket Bog BAP Priority habitat. SSSI designations are also present.

Historic environment

This unit has a very large number of SMs - over 90 in total. There are numerous Bronze Age barrows, chambered cairns, prehistoric settlement sites and field systems, some of which are submerged, and many under threat of coastal erosion. There are the remains

of Old Town harbour, and Hugh Town is dominated by The Garrison. Peat deposits are found at Porth Mellon.

Marine environment

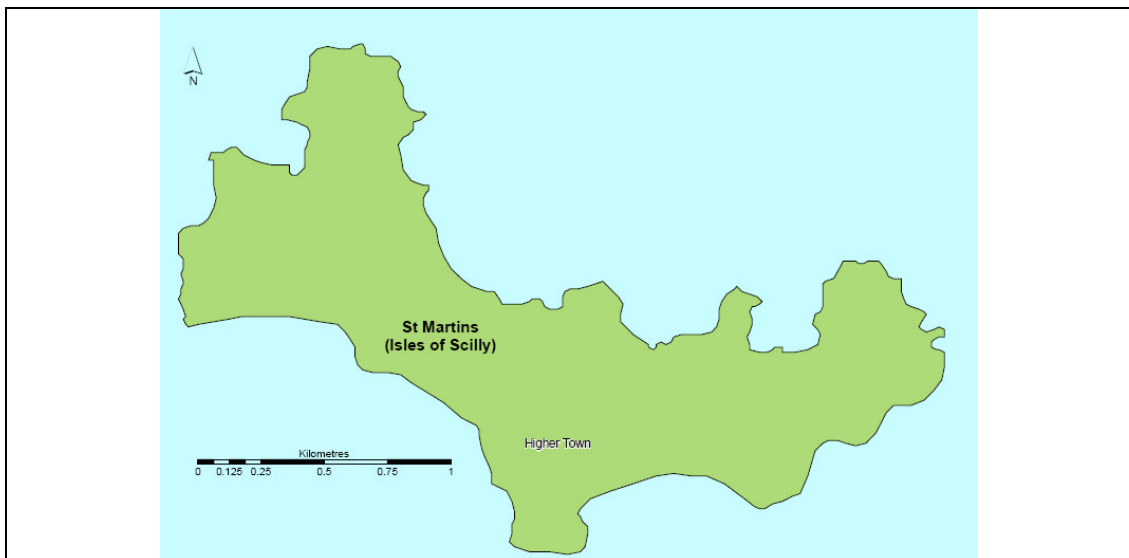
The main port for the Isles of Scillies is at St Mary's. There is the Designated wreck of Bartholomew Ledges and numerous undesigned wrecks.

Erosion and flood risk

A number of defence structures, including seawalls, embankments and revetments are located at the back of beaches around St Mary's. Several of these schemes were put into place following severe winter storms and flooding/erosion that occurred during 1989/1990.

- Flood risk at Old Town, Porth Cressa and Hugh Town
- Widespread erosion to coast path
- Flood risk at Porth Hellick
- Erosion risk to Porth Hellick shingle bank
- Erosion risk to Porth Cressa and Old Town
- Erosion risk to the Garrison
- General erosion risk to low Ram cliffs (e.g. Porthloo)

7.12 Isles of Scilly 2 St Martin's



Coastline Description

St Martins is the most northerly of the populated Isles of Scilly. It is surrounded by numerous smaller uninhabited islands and islets, particularly on its western and southern flanks.

The shoreline of St Martin's is largely composed of rocky foreshores fronting granite cliffs and slopes, along with a number of sandy beaches. The northerly facing coastline is mostly craggy cliff while most of the beaches are located along the much more sheltered south-west shoreline. Coastal cliff elevations reach 30-40 metres on the north coast.

Development and settlements

St Martins' population is small, with three areas of residential development existing at Higher Town, Middle Town and Lower Town, along the south-western shore of the island. There are currently no sea or coastal defence structures located on St Martins.

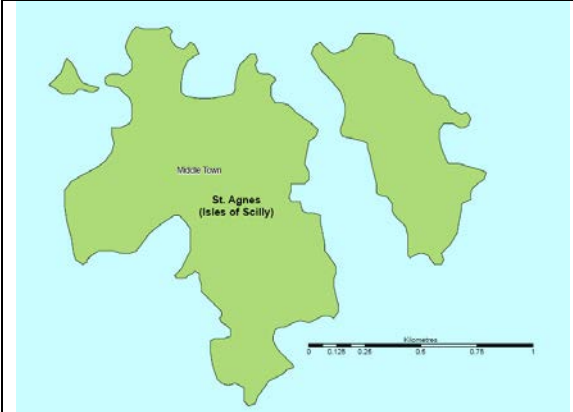
Human activity
Tourism is the Islands primary source of income, although traditional activities of fishing and farming are also significant. Tourism makes up 85% of the Islands' economy. Water supplies on the island are limited and provided by ground water. Electricity is supplied from the national grid on the mainland.
Natural environment
There are a number of nature conservation interests including the Isles of Scilly Complex SAC, Isles of Scilly SPA and the Isles of Scilly RAMSAR site. SSSI designations are also present.
Historic environment
There are a significant number of SMs in the unit. There are numerous prehistoric ritual and settlement sites, some of which are submerged. There are also numerous intertidal peat deposits.
Marine environment
Protected wreck of Wheel Wreck.
Erosion and flood risk
<ul style="list-style-type: none"> • Higher Town beach marram grass areas vulnerability to high spring tides • Footpaths - erosion, diversion, continued access problems

7.13 Isles of Scilly 3 Tresco & Bryher

	<p>Coastline Description</p> <p>Tresco and Bryher lie close to one another to the north-west of St Mary's. Numerous uninhabited islands and islets surround them. Tresco is the most sheltered of the inhabited islands, and displays extensive lengths of sandy beach backed by dune areas. The most northerly part of the coast is formed of rocky foreshore and granite cliffs and slopes. Bryher lies directly west of Tresco and displays resistant granite cliffs and slopes, fronted by rocky foreshores.</p>
<p>Its sheltered eastern shoreline has extensive sandy areas fronting lower-lying areas around some populated areas. Sandy beaches also exist on the western side of the island at Great Porth and Popplestone Bay. Coastal elevations on both islands reach 20-30 metres along the cliffed sections.</p>	
<p>Development and settlements</p> <p>New Grimsby and Old Grimsby are the principal areas of residential development on the island, though there is no motorized vehicle infrastructure on Tresco. On Bryher there are communities at The Town, Green Bay and Kitchen Porth</p> <p>Tresco has defences in place at New Grimsby and Appletree Bay, to prevent erosion affecting properties. Defences exist in several areas on Bryher, all of which are designed to prevent erosion of the sand dunes (and hence prevent flooding of the lower-lying</p>	

hinterland).
Human activity
Tourism is the Islands primary source of income, although traditional activities of fishing and farming are also significant. Tourism makes up 85% of the Islands' economy. Water supplies on the island are limited and provided by ground water. Electricity is supplied from the national grid on the mainland.
Natural environment
There are a number of nature conservation interests including the Isles of Scilly Complex SAC, Isles of Scilly SPA and the Isles of Scilly RAMSAR site. SSSI designations are also present.
Historic environment
There are a number of significant historical features in the unit including SMs. There are extensive prehistoric ritual and settlement sites, some of which are submerged. Abbey Gardens on Treeco is a registered Historic Park and Garden.
Marine environment
The HMH Colossus protected wreck.
Erosion and flood risk
Bryher <ul style="list-style-type: none"> • Protection of works at Popplestones & Great Porth • Flood risk at Hell Bay • Erosion risk at Popplestone Bay Treeco <ul style="list-style-type: none"> • Erosion risks at south end of island

7.14 Isles of Scilly 4 St Agnes

	Coastline Description
	The most southerly of the inhabited Isles is St Agnes. It is largely characterised by rocky foreshores, granite cliffs and slopes, with limited areas of sand deposition around the Periglis, Porth Coose and Porth Killer areas. Coastal elevations reach 20 metres along the western shoreline.
Development and settlements	
There is very little development of any kind on St Agnes and within the unit. There is one electricity substation however.	
Human activity	
Tourism is the Islands primary source of income, although traditional activities of fishing and farming are also significant. Tourism makes up 85% of the Islands' economy. Water supplies on the island are limited and provided by ground water. Electricity is supplied from the national grid on the mainland	
Natural environment	
There are a number of nature conservation interests including the Isles of Scilly Complex SAC, Isles of Scilly SPA and the Isles of Scilly RAMSAR site. SSSI designations are also present.	

Historic environment

There are nearly seventy SMs on St Agnes and numerous prehistoric ritual and settlement sites.
--

Marine environment

There are a number of discrete lengths of revetment and embankment located at the back of the beaches in the aforementioned lower-lying areas. There are numerous wrecks.

Erosion and flood risk

- | |
|--|
| <ul style="list-style-type: none">• Protection & maintenance of coast protection scheme at Periglis (water catchment) – issue that freshwater supply could be at risk of saline intrusion. |
|--|

8 GLOSSARY

8.1 A guide to designations

Relevant Designations

Designations applied to ecological, geological and historic features may be of international, national, or regional and local importance. Those relevant to the study area are listed below, with the hierarchical structure of international through to local representing the relative weight or importance placed on each resource.

International Designations

Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, transposed into UK law by the Conservation (Natural Habitats) Regulations 1994 ('the Habitats Regulations') has resulted in the identification of several Special Areas of Conservation (SACs) along the length of the SMP coastline. The Council Directive 79/409/EEC on the conservation of wild birds ('The Birds Directive') is implemented in the UK through the Wildlife and Countryside Act 1981 as amended, and provides for the identification of Special Protection Area (SPAs).

The EC Habitat Regulations apply to both SACs and SPAs and strengthen the protection afforded to sites by the Wildlife and Conservation Act of 1981, as amended, by making illegal *any* damage to breeding sites or nesting places of protected species. Any developments, within the meaning of the Conservation (Natural Habitats etc.) Regulations 1994, which are likely to affect an SPA or SAC will not be permitted, unless the relevant 'competent authority' has decided, on completion of an 'appropriate assessment', that there are no alternative solutions and that the development must be carried out for imperative reasons of overriding public interest.

The European and British legislation has led to the designation of various levels of nature conservation sites, some being of international importance, others of national importance. As well as this there are sites designated locally, usually by the Local Planning Authority and/or the local Wildlife Trusts.

Special Protection Areas (SPA). These internationally important sites establish a network of protected areas for birds.

Ramsar sites. The objective of this designation is to stem the progressive encroachment onto, and loss of, wetlands

Special Areas of Conservation (SAC). This designation aims to protect habitats or species of European importance.

Biogenetic Reserve. These are a European network of reserves to conserve representative examples of European flora, fauna and natural areas. Altogether there are five Biogenetic Reserves in the UK, all of which are heathland sites. There are no biogenetic reserves in the SMP2 study area.

All SPA, SAC and Ramsar sites are Sites of Special Scientific Interest (SSSI's), except those in the marine environment below Mean Low Water.

National Designations

The principal national designation of ecological importance to nature conservation in the UK is SSSI. Natural England designates SSSIs as being "of special interest by reason of... flora, fauna, or geological or physiographical features".

All public authorities along the coastline, including local planning authorities, have a duty under the amended Wildlife and Countryside Act 1981 to further and enhance the nature conservation interests of these sites whilst carrying out their statutory functions. This should be achieved by consulting the relevant government nature conservation advisors (in this case Natural England) for advice on whether a proposed licence or work to be undertaken directly for the authority is likely to harm the SSSI interests. If the advice is not followed, the authority must provide reasons for this in writing to the Secretary of State, and make good any damage to the site.

Sites of Special Scientific Interest (SSSI). These sites, notified by Natural England, represent some of the best examples of Britain's natural features including flora, fauna, geology or physiography. Planning authorities must consult Natural England before granting permission for the development of land in or around or likely to affect a SSSI.

National Nature Reserves (NNRs). These represent some of the most important natural and semi-natural ecosystems in Great Britain, and are managed to protect the conservation value of the habitats that occur on these sites.

Voluntary Marine Nature Reserve (VMNR). These are set up by representatives of the users of a subtidal area in order to initiate management of that area. Management may have a variety of purposes from conservation of a marine biologically important area, to use for educational purposes.

Sensitive Marine Areas (SMA). Under the Sensitive Marine Areas initiative, Natural England has identified 27 such sites along the whole of the English Coast. The objective of the initiative is to raise awareness of the importance of the marine environment and work towards developing integrated management for whole marine areas.

Areas of Outstanding Natural Beauty (AONB). The purpose of the designation is the conservation and enhancement of the natural beauty of an area. This includes protecting its flora, fauna, geological and landscape features. In achieving this, consideration is given to local socio-economic needs of the community and in particular to the traditional land uses and practices that are intrinsic elements of the landscape to be conserved.

Scheduled Monument. A statutory designation under the Ancient Monuments and Archaeological Areas Act 1979. This act, building on legislation dating back to 1882, provides for nationally important archaeological sites to be statutorily protected as scheduled monuments.

Listed building. A building or other structure officially designated as being of special architectural, historical or cultural significance.

Conservation Areas. Local Planning Authorities have a duty under The Planning (Listed Buildings & Conservation Areas) Act 1990 to designate as conservation areas any areas considered to be of special architectural or historic interest, the character or appearance of which it is desirable to protect or enhance.

Regional/local Designations

Regionally and locally important sites. Local Planning Authorities have powers to identify Sites of Importance for Nature Conservation (SINCs). Whilst these sites are not protected by legislation, the local planning assumption is that development which would result in loss or significant harm to the wildlife value of these areas would not be permitted. In addition, positive management of these sites is often facilitated in the form of assistance with funding applications from local conservation groups, or with recognition in local plans in order to facilitate planning gain opportunities.

Local Nature Reserves (LNR). These are established by local authorities in consultation with Natural England and then managed by or in agreement with the local authority. These sites are generally of local significance and provide important opportunities for environmental education and public enjoyment of nature. However, LNRs are often also SSSIs, and therefore can be of national importance.

Sites of Interest for Nature Conservation (or SINC) or Sites of Nature Conservation Interest (SNCI). These sites are defined as being of County importance for nature conservation. These are not statutory but form an Integral part of the formulation of planning policies relating to nature conservation issues. Some of these sites may be of equal quality to SSSIs and can support protected species

Regionally Important Geological Sites (RIGS). These are sites designated for their importance to geological conservation.

Non-Designated Areas and Protected Species. Although designations are a very important method of identifying areas of significance to nature conservation they are not the only method. Animals are unlikely to restrict themselves to designated boundaries. Rare plants and insects also occur outside of designated sites. Care must be taken not to consider an area unimportant just because it is not within an SAC, SPA or SSSI.

Historic Environment Record (HER). Formerly Sites and Monuments Register (SMR), these hold records of historical and archaeological structures, features and finds, as well as buildings and landscapes of historical or architectural interest within a given county or unitary authority area.

Registered parks and gardens. Parks and gardens registered for their historic value so they are considered in the planning process. Local planning authorities must consult English Heritage where planning applications may affect these sites.

9 SOURCES OF INFORMATION

9.1 Document Review

The SMP1 documents for the study area were used to provide an initial capture of the features and issues in the study area. This has been updated and supplemented with significant GIS interrogation to capture other features and issues, and spatially geo-reference all of the data. Some data has been excluded from the Summary Tables and Features, Benefits and Issues table at this stage due to the large numbers of features present, such as listed buildings. They will be included at a later stage once the extent of flood and erosion risks to these features has been fully identified.

9.2 Data Collation meetings with officers

During Stage 1 of the SMP Review and number of data collation visits were held with local authority officers and engineers, and other major stakeholders such as the National Trust, English Heritage, and the Wildlife Trust. Features and issues picked up in these meetings are included in this report and the features benefits and issues table.

9.3 Stakeholder engagement

Questionnaire responses from a mail out to stakeholders in the latter part of 2008 have been reviewed and incorporated into the Theme Review and Features, Issues and Benefits table where appropriate. In addition, comments from the general public and stakeholders were sought through a series of stakeholder engagement events held during April and May 2009 and information captured relating to issues around the coast have also been incorporated.

9.4 Internet websites

Further research has been undertaken using the internet and listed are those websites where information has been sourced. All websites were accessed during April 2009.

<https://www.swtourism.org.uk/>

<http://www.visitcornwall.com/>

<https://www.scilly.gov.uk/>

<https://www.southwestrda.org.uk/>

<http://www.southwestcoastpath.com/index.cfm>

(Matthew Taylor Second Homes Debate)

<http://www.guardian.co.uk/uk/2006/jul/05/communities.property>).

<https://worldheritageuk.org/>

www.cornwallwildlifetrust.org.uk

<https://www.cornishmining.org.uk/>

<http://www.britainexpress.com/countryside/coast/>.

www.defra.gov.uk (Living Working Countryside: The Taylor Review 2008).

(<https://www.scilly.gov.uk/planning>).

Appendix A

List of communities and beaches around the coastline (Mainland only)

Community Name	Associated Beach	Beach Aspect	Characterisation area
Freathy	Whitsand Bay Beach	SW	Rame Head to Gribbin Head
Crafthole	Whitsand Bay Beach	SW	
Portwrinkle	Finnygook Beach	SSW	
	Beaks Horn Beach	SE	
Downderry	Downderry beach	SSW	
Seaton	Seaton Beach	SW	
Millendreath	Millendreath Beach	S	
	Plaidy Beach	S	
Looe	East Looe Beach	S	
West Looe/Hannafore	Hannafore Beach	SE	
Porthallow	Talland Bay	S	
Polperro	Polperro Beach	SE	
Lansallos	Lansallos Beach & Lantivet Bay	S	
Polruan	Little Lantic Beach	W	
	Great Lantic Beach	S	
Bodinnick	Fowey Estuary		
Lerryn	Fowey Estuary		
Penpoll	Fowey Estuary		
St Winnow	Fowey Estuary		
Milltown	Fowey Estuary		
Golant	Fowey Estuary		
Fowey	Readymoney Beach	SE	Gribbin Head to Dodman Point
	Polridmouth	S	
	Platt Beach	SW	
Polkerris	Polkerris	W	
Par	Par Sands Beach	SSW	
Biscovey	Spit Beach	S	
Carlyon Bay	Carlyon Bay	SSE	
Charlestown	Duporth Beach	SE	
Porthpean	Porth Pean Beach	SE	
Trenarren	Ropehaven Beach	NE	
Pentewan	Pentewan Beach	SE	
Mevagissey	Polstreath Beach	ESE	

Community Name	Associated Beach	Beach Aspect	Characterisation area
	Polkirt Beach	E	Dodmand Point to Zone Point
Portmellon	Portmellon Cove	E	
	Colona Beach	E	
	Great Perhaver Beach	SE	
Gorran Haven	Gorran Haven Beach	ENE	
	Bow or Vault Beach		
Boswinger	Hemmick Beach	SW	
St Michael Caerhays	Porthluney Beach	S	
Portholland	Portholland Beach	S	
	Pebargus Beach	SE	
Portloe	Portloe Beach	SE	
	Parc Caragloose Cove	ESE	
	Kiberick Cove	SE	
Carne	Carne/Pendower Beach	S	
Treworlas	Carne/Pendower Beach	S	
Cargurrel	Porthbean Beach	E	Zone Point to The Lizard
Treluggan	Porthbean Beach	E	
Rosevine	Porthcurnick Beach	SE	
Portscatho	Porthscatho Beach	E	
Gerrans	Porthscatho Beach	E	
	Towan Beach	SE	
	Elwinick Cove	SW	
Bohortha	Porthbeor Beach	SE	
St Anthony	Cellars Beach	NE	
St Mawes	Tavern Beach	SW	
St Just in Roseland	Fal Estuary		
Lamorran	Fal Estuary		
St Michael Penkevil	Fal Estuary		
Tresillian	Fal Estuary		
St Clement	Fal Estuary		
Malpas	Fal Estuary		
Truro	Fal Estuary		
Calenick	Fal Estuary		
Old Kea	Fal Estuary		
Coombe	Fal Estuary		
Trelissick	Fal Estuary		
Trevilla	Fal Estuary		
Feock	Fal Estuary		
Penpol	Fal Estuary		
Devoran	Fal Estuary		
Restronguet	Fal Estuary		
Mylor	Fal Estuary		
Mylor Bridge	Fal Estuary		

Community Name	Associated Beach	Beach Aspect	Characterisation area
Flushing	Fal Estuary		
Penryn	Fal Estuary		
Perran Wharf	Fal Estuary		
Falmouth	Gyllyngvase Beach	SE	
	Swanpool Beach	SE	
	Sunny Cove	SE	
Maenporth	Maenporth	E	
	Bream Cove	E	
	Gatamala Cove	E	
	Parsons Beach	SE	
Mawnan	Porthallack Beach	SW	
	Porth Saxon Beach	S	
Durgan	Durgan Beach	SE	
	Polgwidden Cove	SE	
Helford Passage	Passage Cove	S	
Porth Navas	Helford River		
Gweek	Helford River		
Helford	Helford Beach	N	
	Treath Beach	NW	
	Bosahan Cove	NE	
St Anthony-in-Meneage	St Anthony-in-Meneage	NE	
Manaccan	Gillan Creek		
Carne	Gillan Creek		
Flushing	Flushing Beach	E	
Gillan	Gillan Beach	NNW	
Lestowder	Nare Cove	E	
Roskorwell	Fletching's Cove	E	
	Nelly's Cove	E	
Porthallow	Porthallow Cove	NE	
Porthkerris	Porthkerris Cove	E	
Porthoustock	Porthoustock Beach	E	
Rosenithon	Leggan Cove	SE	
St Keverne	Godrevy Cove	ESE	
	Polcries Beach	SSE	
North Corner	Coverack Beach		
Coverack		E	
	Perprean Cove	SE	
Trewillis	Porthbeer Cove	S	
Treleaver	Dinas Cove	S	
Ponsongath	Downas Cove	S	
Arrowan	Lankidden Cove	SE	
Gwendreath	Kennack Sands	SE	

Community Name	Associated Beach	Beach Aspect	Characterisation area
Kuggar			
Poltescoe	Little Cove	E	
	Carleon Cove	E	
Ruan Minor	Kildown Cove	E	
Cadgwith	Cadgwith Cove	SE	
	Polgwidden Cove	SE	
	Parn Voose Cove	E	
Lizard	Church Cove	E	
	Prilla Cove	E	
	Housel Cove	SE	
	Polpeor Cove	SW	
Lizard	Pentreath Beach	SW	Lizard to Penlee Point
	Kynance Cove	SW	
	Gew Graze Beach	SW	
Predannack Wollas	Parc Bean Cove	SW	
Mullion Cove	Mullion Cove	SW	
	Polurrian Cove	SW	
	Poldhu Cove	SW	
	Church Cove	SW	
Chyanvounder	Halzephron Cove	SW	
Gunwalloe	Gunwalloe Cove	SW	
Berepper	Porthleven Sands	SW	
Chyvarloe	Porthleven Sands	SW	
Helston	Porthleven Sands	SW	
Porthleven	Porthleven Sands	SW	
Methleigh	Parc Trammel Cove	SW	
	Porth Sullinces	SW	
Trewaves	Porthcew Beach		
Rinsey		SW	
Praa Sands	Praa Sands	SW	
	Sydney Cove	S	
Kenneggy	Kenneggy Sand	SSE	
Prussia Cove	King's Cove	S	
Prussia Cove	Bessy's Cove	S	
Prussia Cove	Piskies Cove		
Rosudgeon	Trevean Cove	SW	
Perranuthnoe	Perran Sands	SW	
	Trenow Cove	SW	
Marazion	Mounts Bay	S	
Chyandour	Mounts Bay	S	
Penzance	Mounts Bay	S	
Newlyn	Newlyn Beach	SE	
Paul	Roskilly Cove		

Community Name	Associated Beach	Beach Aspect	Characterisation area
Mousehole	Mousehole Beach	E	Penlee Point to Clodgy Head
Lamorna	Lamorna Cove	SE	
Boskennal	Paynters Cove	S	
	St Loys Cove	S	
Treen	Le Scath Cove	SE	
	Penberth Cove	SE	
	Cripps Cove	E	
Porthcurno	Porthcurno	SE	
St Levan	Porth Chapel	S	
Porthgwarra	Porthgwarra Beach	SE	
	Porth Loe	SE	
	Pendower Coves	SW	
Lands End	Nanjizal	W	
Sennen Cove	Sennen Cove	NW	
Escalls	Whitesand Bay	W	
	Gwynver	W	
ST Just	Porth Nanven	W	
	Priests Cove	SW	
Lower Boscaswell	Portheras Cove	NNW	
Morvah	Porthmoina Cove	NW	
Porthmeor	Porthmeor Cove	NW	
Treen	Treen Cove	N	
	Porthglaze Cove	NW	
Zennor	Veor Cove	N	
	Pendour Cove	N	
Treveal	River Cove	N	
St Ives	Porthmeor Beach	N	Clodgy Point to Godrevy Head
	Porthgwithen Beach	NE	
	Bamaluz Cove	NE	
	St Ives Harbour Beach	E	
	Porthminster Beach	NE	
Carbis Bay	Carbis Bay (Barrepta Cove)	NE	
Lelant	Porth Kidney Sands	N	
Hayle	Hayle Estuary		
The Towans	Hayle Towans	NW	
Phillack	Hayle Towans	NW	
Upton Towans	Gwithian	NNW	
Gwithian	Gwithian	NW	
	Godrevy Cove	SW	
Godrevy Head to Trevoze Head	Kynance Cove	N	
	Fishing Cove	NE	
	Greenbank Cove	NW	
	Basset's Cove	NW	

Community Name	Associated Beach	Beach Aspect	Characterisation area	
	Porth-cadjack Cove	NW		
	Western Cove	NW		
Portreath	Portreath Beach	N		
	Gooden Heane Cove	NW		
	Sally's Bottom Cove	NW		
Porthtowan	Porth Towan Beach	NW		
	Chapel Porth	NW		
St Agnes	Trevaunce Cove	NW		
Perranporth	Perran Beach	WNW		
Holywell	Holywell Beach	NW		
West Pentire	Porth Joke	NNW		
Crantock	Crantock Beach	NW		
Pentire	Fistral Beach	NW		
	Gannel Estuary			
Newquay	Fistral Beach	NW		
	Beacon Cove	NW		
	Newquay Harbour	E		
	Towan Beach	N		
	Great Western Beach	NNW		
	Tolcarne Beach	NW		
	Lusty Glaze Beach	NW		
Porth	Porth Beach	NW		
	Wipsiderry Beach	NW		
Tregurrian	Watergate Beach	NW		
	Stem Cove	NW		
Trevarrian	Beacon Cove	NW		
Mawgan Porth	Mawgan Porth	WNW		
Carnewas	Bedruthan Steps Beach	W		
Bedruthan		W		
	Pentire Steps Beach	WSW		
Porthcothan	Porthcothan Beach	NW		
	Fox Cove	SW		
Treyarnon	Treyarnon Beach	NW		
St Merryn	Constantine Bay	W		
	Booby's Bay	W		
Trevose	Mother Ivey's Bay (Polventon)	NE		Trevose Head to Pentire Head
Harlyn Bay	Harlyn Bay	N		
Trevone	Trevone Bay	NW		
Crugmeer	Hawker's Cove	E		
Padstow	St. Georges Cove	E		
Dinas	Camel Estuary			
Tregunna	Camel Estuary			
Little Petherick	Camel Estuary			

Community Name	Associated Beach	Beach Aspect	Characterisation area	
Trevorrick	Camel Estuary			
Tregonce	Camel Estuary			
Trevanson	Camel Estuary			
Wadebridge	Camel Estuary			
Bodieve	Camel Estuary			
Stoptide	Camel Estuary			
Rock	Porthilly Cove	WSW		
Trebetherick	Daymer Bay	W		
	Greenaway Beach	NW		
Polzeath	Broadagogue Beach	NW		
New Polzeath	Hayle Bay	NW		
	Sandinway Beach	NE		Pentire Head to Hartland Point
	Pengirt Cove	NE		
	Downhedge Cove	N		
Porteath	Lundy Hole	N		
	Epphaven Cove	NW		
	Gilson's Cove	NW		
Port Quin	Port Quin Beach	NW		
	Downgate Cove	NNW		
	Greengarden Cove	N		
	Varley Sand	E		
Port Isaac	Port Isaace Beach	N		
Port Gaverne	Port Gaverne Beach	NE		
	Cartway Cove	NW		
Treligga	Tregardock Beach	NW		
Trebarwith	Trebarwith Strand	NW		
	Lill Cove	WNW		
Treknow	Hole Beach	W		
Tintagel	Tintagel Haven	N		
Bossiney	Bossiney Haven	N		
	Benoath Cove	N		
Boscastle	Boscastle Harbour	NW		
	Rusey Beach	W		
	The Strangles	W		
	Little Strand	W		
	Tremoutha Haven	N		
Crackington Haven	Crackington Haven	WNW		
St Gennys				
Dizzard				
Millook	Millook Haven	N		
Widemouth Bay	Widemouth Sand	WNW		
Upton				

Community Name	Associated Beach	Beach Aspect	Characterisation area
Lynstone			
Bude	Bude Haven Beach	N	
Flexbury	Crooklets Beach	W	
Poughill	Northcott Mouth	W	
Stibb	Sandy Mouth Beach	W	
	Warren Long Beach	W	
	Eliza Beach	W	
	Warren Little Beach	W	
	Warren Gutter Beach	W	
	Duckpool	W	
Stanbury	Wren Beach	W	
	Holcombe Beach	W	
	Rane Beach	W	
	Stanbury Beach	W	
	Caunter Beach	W	
	Greenway Beach	W	
Morewenstow	Cotton Beach	W	
Welcombe	Marsland Beach	W	
	Chiselridge Beach	W	
	Newthorne Beach	W	
	Embury Beach	W	
Hardisworthy	Elmscott Beach	W	
Milford	Speke's Mill Mouth	W	
Stoke	Broad Beach	W	
Hartland	Blegberry Beach	W	