

## Landscape Character Type C: Low Farmed Coast and Marsh



Porlock Marsh and beach as seen from Whitstone Post

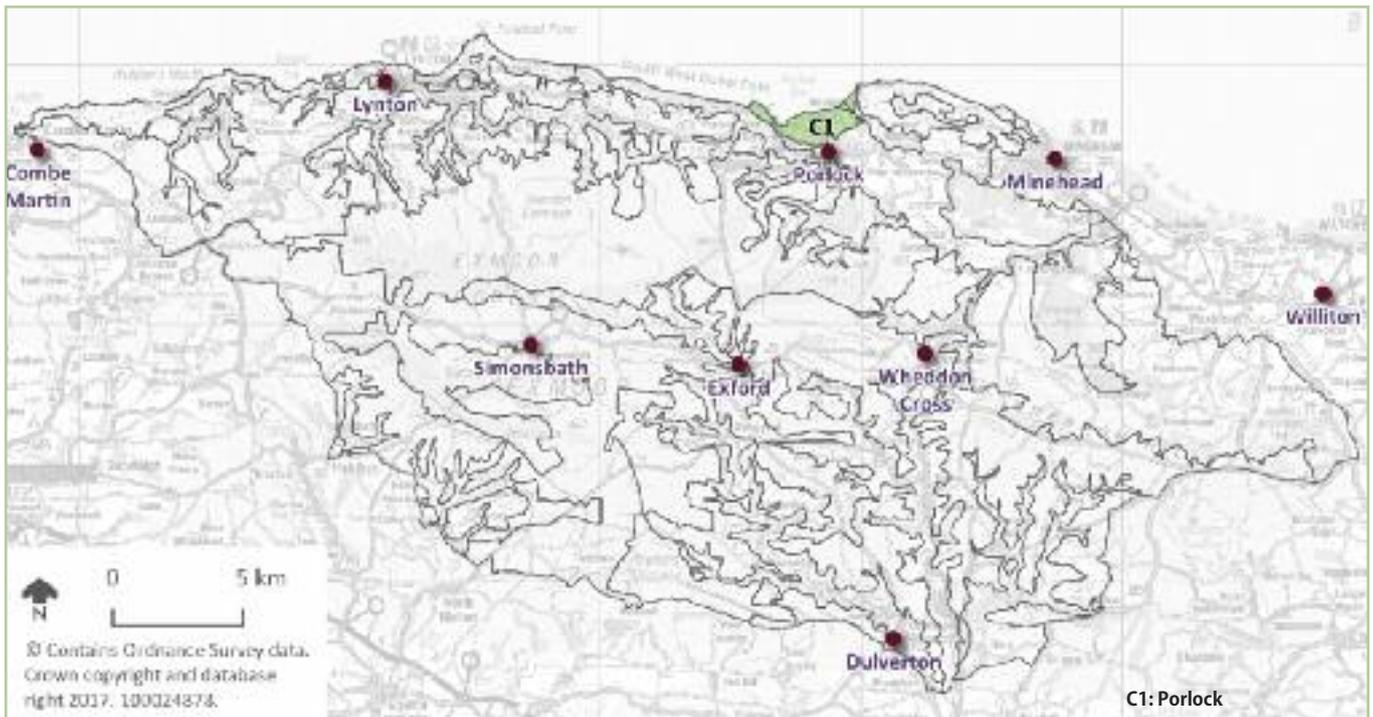
### Summary Description

This LCT is located in the north-east of the National Park. It comprises the shingle beach and ridge fronting Porlock Bay, and the low-lying marsh and agricultural land inland. It is located at the northern end of the Farmed and Settled Vale LCT, and is framed on either side by wooded hills forming the High Wooded Coast, Combes and Cleaves LCT. To the east, Hurlstone Point (within the High Coastal Heaths LCT) is a dominant feature and closes the view eastwards. Gore Point and Porlock Weir are features on the western boundary of the LCT, and there are stunning views westwards along the coast. The villages of Bossington and Porlock Weir are within the LCT, and the larger village of Porlock is adjacent to it.

This is a striking landscape, unique within Exmoor, and with an exceptionally strong physical and cultural association with the sea. It forms a low arc

of flat coastal land which contrasts markedly with the surrounding woods and valleys. It is also a landscape which is undergoing rapid and dramatic change following sudden breaching of the shingle ridge by storms driven by Hurricane Lili in 1996. Since the breach, daily inundation by the tide is a significant feature of the landscape and dramatically changes the character of the marsh, with salt marsh visible at low tide. The process of salinization has caused trees to die, leaving their trunks as evocative and sculptural features within the landscape. The muted colours and sinuous forms of the saltmarsh contrast sharply with the brighter colours of the farmland.

There is only one Landscape Character Area (LCA) within this LCT. It is also within the Porlock Bay Seascape Character Area (SCA) identified in the Seascape Character Assessment.



## Key Characteristics of the Low Farmed Coast and Marsh

- Surface geology of drift river deposits, salt marsh deposits (mainly clay) and a mixture of silt, sand, clay and rock fragments. The beach and ridge are formed of large, rounded cobbles.
- The landform is strikingly flat (from 5-15m AOD) and contrasts with the enclosing landforms of the surrounding cliffs, hills and vale.
- Porlock Ridge forms a dynamic natural shingle ridge between the shingle beach and the marshland behind. The ridge has been breached, resulting in a change from freshwater to saltmarsh behind.
- Simple land cover of open salt marshes giving way further inland to enclosed farmland of improved pastures and some cereal cropping.
- Semi-natural habitats include herb-rich vegetated shingle and salt marsh.
- Relatively few trees, but dead trees within the salt marsh have a sculptural quality.
- Farmland defined by small, regular fields divided by pebble-faced hedgebanks.
- Settlement generally on higher ground at the edges of the LCT. It is concentrated around the historic harbour of Porlock Weir, and the picturesque estate village Bossington.
- Historic landscape features associated with its coastal location, including the harbour at Porlock Weir, limekilns, duck decoy barn and pond, and WWII defences.
- Strong influence of the sea, with large tidal range exposing swathes of rock. From the beach there are views across the Bristol Channel, and along the coast.
- Views are contained by high landform surrounding the LCT.
- A dynamic landscape of contrasting colours and textures, and a sense of tranquillity (and occasionally desolation) particularly within the saltmarsh areas.
- Cultural associations with the Romantic poets.

## Natural Landscape Features

The landscape within the LCT is of relatively recent origin, with the shingle ridge thought to have developed in the Holocene period, about 8000 years ago. Since then it has been in a dynamic state of constant movement, reflecting changing coastal processes and sea levels. A fossil forest of tree stumps and peat dating from c.5000 years ago may be seen off the coast at low tide, and the bones of an Aurochs (a mammoth ox) dating from 1500BC were found on the beach following a storm in 1996. The shingle ridge was breached by the sea in 1996, flooding the low-lying marsh behind. This is the only documented example in the UK of a nationally-important coastal system which has undergone catastrophic failure and subsequent evolution without artificial replenishment. A decision was made not to repair the breach but to adopt a policy of 'no active intervention'. It is predicted that the shingle will continue to roll back, but no one is entirely sure how the ridge, beach and marsh will evolve in the future. The inundation by seawater has resulted in salinization of the marshland behind the ridge, which has affected the land use and habitats. Prior to 1996, the coastal marsh contained freshwater reedbeds and grazing marsh. Now it

contains a mosaic of saltmarsh, shingle and farmland as well as seashore habitats and boulder beach. Much of the area has been designated SSSI for its geomorphological and biological interest and provides habitat for overwintering birds. As the habitats change, the species present also change. For example, there are now fewer breeding birds, but more waders.

Rivers and streams cross the Marsh towards the sea. The Horner (technically within LCA B5) flows through Bossington and out to sea through the ridge. Usually it seeps through the shingle, but occasionally bursts a hole in the ridge which then gradually refills. The Hawkcombe River is very dynamic, and empties into the middle of the Marsh, with associated flood risk concerns for Porlock. The lower stretches of the stream are artificially raised on a shingle fan (probably post-glacial in origin) and flow higher than the adjoining fields.

Changes to the form of the coastline have also affected access into the LCT. The breach in the shingle ridge is not safe to cross even at low tide and made it necessary to re-route the South West Coast Path around the inland edge of the salt marsh.



Petrified forest at low tide ©Rob Wilson-North



Porlock Ridge looking east

## Designated Nature Conservation Sites

Site of Special Scientific Interest (SSSI)	Porlock Ridge and Saltmarsh
County / Local Wildlife Site (C/LWS)	Hawk Combe cove
Local Geological Site (LGS)	Porlock Weir to Bossington Beach (an extensive LGS, covering the shingle spit)
Heritage Coast	Exmoor Heritage Coast

## Historic Landscape Features and the Built Environment

There is a very long history of human habitation within this LCT, and Porlock Beach and Marsh are designated a Principal Archaeological Landscape. The earliest archaeological finds are flint flakes from tool-making by Mesolithic hunter-gatherers, which have been found below the peat layer associated with the fossil forest described above. As the shingle ridge rolls back it reveals buried land surfaces dating from the Bronze Age to Victorian times.

Many of the historic landscape features visible within this LCT are directly related to its position by the sea. These include tidal fish weirs, the harbour and settlement at Porlock Weir, and post-medieval limekilns behind the shingle ridge (lime for burning was brought in by boat rather than overland). A 1710 map shows a large freshwater pill (fish pond) on Porlock Marsh. Later maps show a duck decoy in this location with an outlet to the sea. Duck decoys were ponds with narrowing 'arms' of water extending out of them. Ducks would land on the pond, and dogs were used to drive them into the net-covered arms, where they were trapped. In the early 20th Century, a golf course and club house were built, but only lasted one season before being destroyed by storms. The open coast was vulnerable to invasion, and WWII pillboxes (constructed of cobbles) survive on the beach, along with a memorial to the crew of an American bomber which crashed on the Marsh.

Other landscape features relate to the long farming tradition within the LCT, including the Linhay Barn (a Listed Building), and the network of fields and footpaths. To the east of Bossington, the regular

sinuous pattern of fields is thought to be early medieval in date. The relatively small-scale field patterns seen in much of the LCT date from the medieval period. In the west, there are areas of larger and more regular fields with straight boundaries which are later in date.

The landscape has a long history of settlement on higher ground at the edges of the Marsh, and Bossington and Porlock are both Saxon place names (the settlements of Porlock and West Porlock are outside this LCT). Estates have had a strong influence on the development of this landscape, and much of the area is within the Acland family's Holnicote estate, now owned by the National Trust. This includes the distinctive 'chocolate box' estate village of Bossington (Designated a Conservation Area) with its stone and rendered historic cottages, with thatched roofs, lining the main street. The shouldered chimneys with round stacks are a particular feature as they are found on the front of the buildings.

On the opposite side of the LCT, the village of Porlock Weir (also a Conservation Area and part of the Porlock Manor Estate) is focussed on the harbour. It contains rows of thatched cottages (also with front chimneys) running parallel to the contours. The presence of the harbour has led to a stronger trade – and more recently tourist – influence, and contributes to the character and sense of place of the settlement. Stones from the beach form a locally-distinctive building material throughout the LCT. They can be seen in walls (including use as coping stones) and as facing in hedgebanks.



Duck decoy pond ©Rob Wilson-North



Pillbox and Lime Kiln, Porlock Beach

Designated Cultural Heritage Sites

<b>Principal Archaeological Landscapes</b>	Porlock Beach and Marsh
<b>Conservation Areas</b>	Extensive Conservation Area at Porlock Weir Part of Bossington and West Lynch Conservation Area
<b>Listed Buildings</b>	Cluster in Bossington (cottages and Linhay); Cottages in Porlock Weir; Worthy Manor and outbuildings

Examples of vernacular buildings within the LCT:



Harbour at Porlock Weir



Linhay, Bossington



Holnicote Estate cottages in Bossington



Rendered Holnicote estate cottages, Bossington

Harbour-master's office and entrance to dry dock, Porlock



Vernacular cottages in terraces parallel to the shore, Porlock Weir. Note the lack of property boundaries



## Landscape Perceptions and Cultural Associations

### Perceptual qualities of the landscape

The low-lying and flat nature of this landscape, combined with its dramatic and ongoing changes creates a unique experience within Exmoor National Park. Parts of the LCT (particularly away from the settlements) have a tranquil quality and sense of isolation. This can be accentuated by the sculptural dead trees, shingle-buried signposts and palpable sense of change within the landscape. The recently-constructed boardwalk has improved access to the beach, but some people also feel that it has introduced a more 'country park' character into the area.

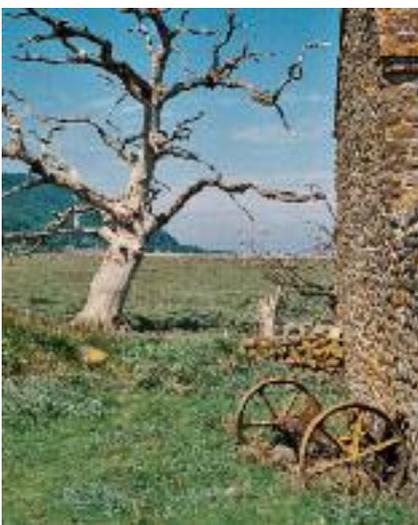
Horizontal lines (such as the shingle ridge, and hedgerows) dominate in this flat landscape. Occasional vertical features such as fence posts and telegraph poles can therefore appear prominent. The textures and colours of the landscape exhibit a marked sense of contrast: the colours of the salt marsh areas and beach are relatively muted, but the colours of the farmed areas are much brighter, including the green of improved grass and occasional yellow fields of oil seed rape. The prevailing tidal and weather conditions can also create huge changes in the perceptual qualities of the landscape. Porlock beach in a storm, with waves crashing over the shingle, is very different from its serenity on a calm day in summer. Porlock Weir has a large car park and range of visitor facilities creating a busier feel, and there is also a more informal car park at Bossington. Both villages are popular with tourists. There is little light pollution within the LCT itself, but there is some light pollution from Porlock,

and also from the South Wales coast which is likely to impact on the darkness of the night skies.

The recent changes to this landscape mean that there is a difference between people's memories of how the coastal parts of the Marsh used to be (grazing marsh, fields and reedbeds) and how they are now (shingle, salt marsh and dead trees). Consequently, people's perceptions of, and reactions to, the landscape are very mixed. This was demonstrated in the *'Exmoor Landscape Perceptions Study'* - words used to describe Porlock Marsh included *desolate, strange, interesting, struggling, mysterious, dramatic, derelict, striking, evocative, calm, unusual, lovely, horrible, fascinating, contrasting* and *barren*. It also evoked a variety of emotional responses, including *calm, with wildlife, exhilarated, thoughtful, de-stressed, eerie, like the darkness* and *with nature*.

### Key views, viewpoints and landmarks

Coastal views are dominated by the shingle ridge and beach in the foreground, and the cliffs which close the views to east and west. There are views across the Bristol Channel to the Welsh coast, and on clear days it is possible to make out individual buildings. The twinkling lights of the South Wales coast make it particularly prominent at night. Looking inland, the views up the Avill Valley (LCT E) are more pastoral, and contained by the wooded slopes of Bossington Wood and Worthy Wood (LCT B). Bossington Hill and Dunkery can be seen in the distance, and the Marsh is a striking feature in views from surrounding hills.



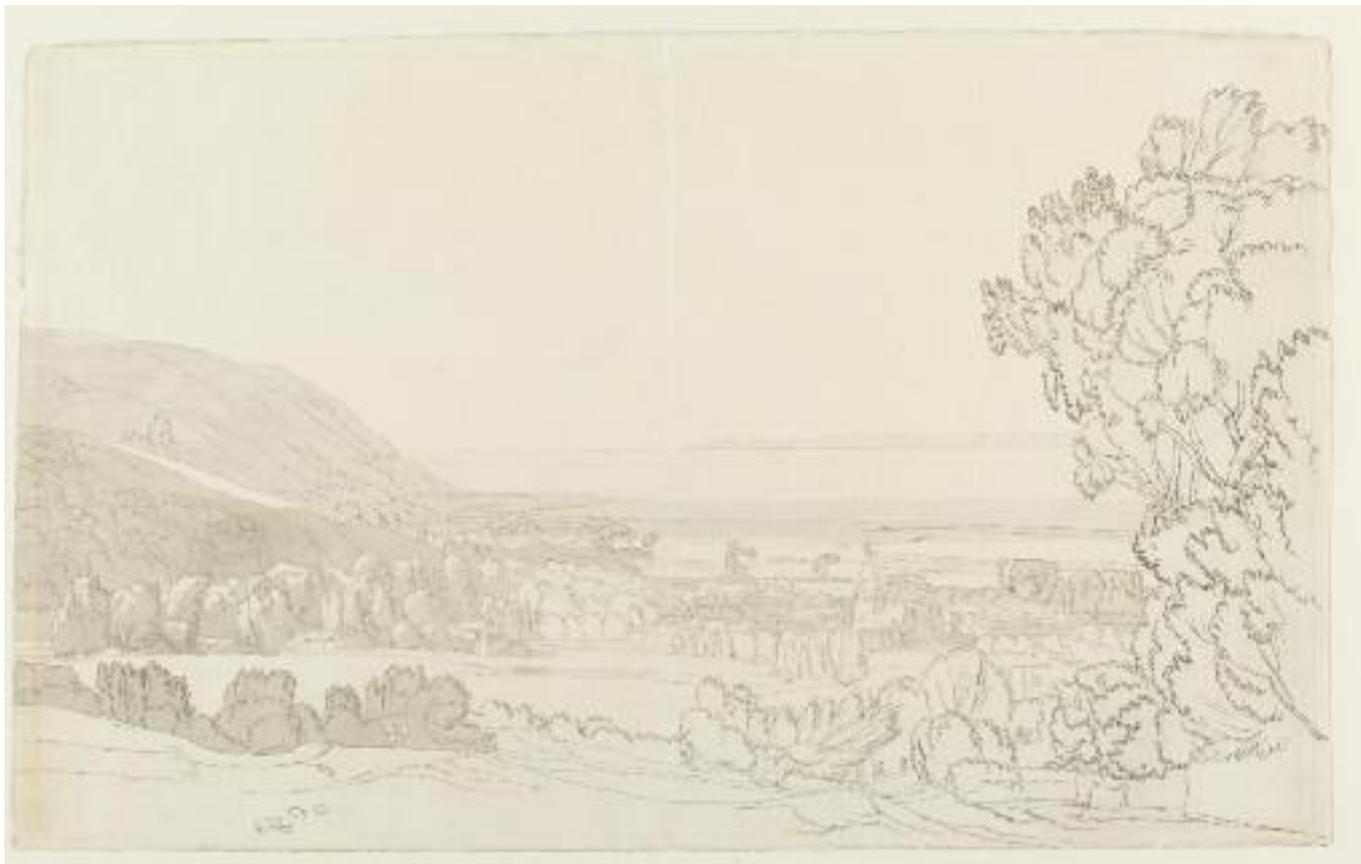
**Left- Porlock Marsh scene in spring. The dead tree and abandoned farm machinery both have sculptural qualities, whilst contributing to the sense of dereliction.**

**Right- The curved form of the new boardwalk providing access to the beach also has a sculptural quality within the landscape. Autumn fog creates a very different light and mood.**



### Cultural Associations

Porlock Marsh was visited by the Romantic poets, including Southey, Wordsworth and Coleridge. Today it is a particularly popular spot for photographers and artists trying to capture the striking and changing landscape, and the unusual sources of beauty within it.



View of Porlock Bay, 4th October 1785 by Francis Towne  
© Victoria and Albert Museum, reproduced with permission

### Natural Assets and Ecosystem Services

Much of the LCT is used as farmland (mainly pasture, with some arable crops) and has some of the most fertile soils within the National Park. These are important Natural Capital Assets, providing a number of ecosystem services, particularly the production of food (including the recent successful re-establishing of the oyster farming industry) and fibre. The coastal habitats, including shingle and saltmarsh, provide habitats for a range of plants, animals and birds, and also function as water storage areas, helping to mitigate the impacts of coastal floods on nearby communities. Such habitats are under threat nationally from development and coastal squeeze, and therefore play a vital role as habitats and feeding grounds for birds and other coastal species.

The Marsh is a popular place to visit, and is well-used and valued, particularly by local people. It therefore offers a number of cultural ecosystem services (the non-material benefits which people obtain from ecosystems) such as recreation, reflection, aesthetic experiences and spiritual enrichment. The long human history of the area provides opportunities for learning, experiencing and researching human habitation, social development and culture.

As a rare example of unmanaged coast following a shingle breach, the landscape and habitats are being carefully monitored and studied to further understanding of coastal processes. They are therefore also important for research and education in this respect.

## Landscape Character Areas (LCAs)

### LCA C1: Porlock

There is only one LCA within the **Low Farmed Coast and Marsh** Landscape Character Type, as the landscape character and sense of place are considered to be consistent across it.

## Seascape Character Areas (SCAs) associated with LCT C

### SCA 2: Porlock Bay

Please refer to the *North Devon and Exmoor Seascape Character Assessment 2015* for more detail.

## Strength of Landscape Character and Landscape Condition in LCT C

The landscape is unusually dynamic, particularly since the breach of Porlock Ridge, and the current shoreline management policy of no active intervention. Nevertheless, the shingle ridge and beach remain prominent features within the landscape, and the combination of the shingle ridge, flat topography and salt marsh habitats create a **strong** and unique landscape character. In parts of the LCT (particularly close to settlements) the distinctive built form makes a strong contribution to landscape character. Elsewhere, historic landscape features such as pillboxes and field patterns contribute to the sense of place.

Overall, the landscape is considered to be in **good** condition, reflecting recent landscape enhancement projects. The majority of the SSSI within this LCT is considered to be in 'favourable' condition, with the western part of Porlock Ridge in 'unfavourable recovering' condition. The condition of the cultural heritage features is quite variable. For example, the estate cottages at Bossington are in good condition and considered at low risk, but the coastal pillboxes and lime kilns (which are not designated) are vulnerable to coastal change and erosion. However, the changing morphology of the

coast also allows previously hidden land surfaces to be revealed and therefore also contributes to our understanding of the archaeological record. Current Conservation Area Appraisals show buildings generally to be in good condition, especially in Bossington, where redundant outbuildings are the only issue. Distracting temporary signage is a minor problem in Porlock Weir, along with replacement doors and windows in non-listed buildings. There is also room for improvement in the appearance of the carpark.

The 2007 Exmoor Landscape Character Assessment highlighted the poor condition of parts of this landscape, for example due to old fencing, poles and small-scale littering. In the intervening years, work has been undertaken to enhance the landscape of this LCT, removing redundant man-made features such as fencing and poles for overhead wires. In addition power lines have been put underground and new hedgerows planted. The construction of the boardwalk has enabled low-tide access to the beach. This improved management takes place against a backdrop of major landscape change as farmland becomes saltmarsh

## An Evolving Landscape

The photographs on the following page show Porlock Marsh prior to the breach of the shingle ridge in 1996. The marsh included managed reedbeds, and meadows, and supported a range of freshwater mammals and birds. All photos provided by Exmoor National Park Authority.



## Landscape Issues and Forces for Change in LCT C

Landscapes are dynamic and are constantly affected by a variety of forces for change, which may be natural (e.g. coastal erosion) or man-made (e.g. development pressure and changes in farming practices). The following table illustrates the main forces for change acting on this LCT, and how they will potentially affect the landscape.

Recommendations for addressing these issues are provided in the following section. Please note that forces for change acting across the whole National Park are described in Section 2.9.

The Local Plan has designated a Coastal Change

Management Area (CCMA) at Porlock Weir, due to the threat of coastal change (sea level rise and increased storm intensity, leading to flooding and coastal erosion). This ensures that development is managed within the CCMA and policies provide for the replacement of assets/buildings lost to coastal change within other areas of the settlement or within settlements close by.

Investigations are ongoing to see whether it is possible to create a more natural alignment for the river into the marsh to improve habitats and potentially reduce flood risk to Porlock upstream

Issue/Force for Change	Landscape sensitivities and potential impacts
Movement of shingle ridge	The breach of the shingle ridge in 1996, and the subsequent decision to 'allow nature to take its course' along this stretch of coast is resulting in rapid and dynamic changes within the landscape. It is predicted that these changes will continue as the ridge rolls inland.
Invasive species	Invasive species (buddleia) along the beach (particularly near Porlock Weir) and Himalayan Balsam along watercourses.
Difficulties of access	Some paths are now inundated by tides, and become slippery or muddy. These include the South-West Coast Path, which has been diverted around the inner edge of the saltmarsh. The recently-constructed boardwalk provides low-tide access to the beach from Porlock.
Climate change and sea level rise	This low-lying stretch of coast becomes increasingly vulnerable to coastal flooding as sea levels rise. Saltmarsh can dissipate wave action and reduce the power of waves, but coastal sites and settlements remain vulnerable, particularly during high tides. Increased frequency of high-intensity storms also increases the risk of flooding from rivers. Bossington is particularly vulnerable to flooding from the Horner Water.
Re-establishment of oyster beds	Since 2013, following a successful trial, commercial oyster farming is now taking place at Porlock Weir. The trestles where the oysters are stored are visible in the sea at low tide, and are new features within the coastal landscape. Oyster farming also creates a different feeling of activity on the beach as the oysters are checked, harvested and replenished. There is concern over expansion of the trestles which are currently in the same location as the submerged forest. Deeper water trials are therefore taking place

Issue/Force for Change	Landscape sensitivities and potential impacts
Loss of archaeological sites and landscape features	Coastal sites (e.g. lime kilns, pillboxes) are at risk of loss or gradual erosion due to the changing physical environment and rising sea levels. Changing agricultural practices mean that other features (such as the Linhay Barn) no longer have a function, and are at risk of neglect and dereliction. The barn is also flooded at particularly high tides.
Small-scale littering, including beach litter along tide lines.	Reduces the visual quality of the landscape, particularly along the beach.
Changes to agricultural grant schemes	The Marsh is currently covered by Higher Level Stewardship agreements which focus on allowing natural processes to develop.



WWII pillbox being undermined by coastal erosion



Buried signpost following movement of shingle



Oyster trestles in Porlock Bay. Image ©BBC website, May 2016.

## Landscape Management Recommendations for LCT C

### Landscape Strategy

(Taken from the vision in 'Porlock Marsh is changing- take a new look')<sup>1</sup>

Porlock Marsh is a tranquil and beautiful place where people come to experience the valued landscapes of open coast and saltmarsh, enclosed farmland and surrounding woodland, cliffs and moors. The Marsh is more accessible and enjoyed by more people and a greater diversity of visitors. It is a place of study and exploration, developing a greater understanding of the changes taking place now, and in the past. The dynamic coast continues to change and evolve, creating a unique mosaic of habitats and supporting a rich diversity of wildlife. The history, archaeology and cultural heritage of the Marsh are better understood and conserved. It is a living landscape, retaining the tradition of farming. The implications of climate change and sea level rise are better understood and inform future management of the Marsh. The Marsh is an asset for local communities and businesses, and forms part of a broad package of attractions, features and activities for visitors and locals alike.

## Specific Management Guidelines for LCT C

### Protect

- Protect the South West Coast Path, improving its resilience against flooding, and ensure it continues to be accessible following sea level rise whilst keeping it as close to the coast as possible. Salt marsh is likely to be excluded from open access as it is too hazardous to walk over.

### Manage

- Respond to the natural processes taking place on the Marsh, taking into account the implications of climate change and sea level rise, and the need to adapt to the changes which are occurring.
- Manage wildlife habitats in accordance with the SSSI Management Plan, including management of invasive species. Consider opportunities for habitat enhancement .
- Continue to manage hedgerows and hedgerows to improve their condition.
- Monitor, survey and record heritage sites, particularly those which are most vulnerable e.g. through a rapid coastal assessment scheme.
- Continue to remove redundant telegraph poles, old fences etc. to reduce the visual clutter within the landscape.
- Manage footpaths, whilst minimising conflicts between people (and dogs) and wildlife.
- Enhance viewpoints for visitors to appreciate views within the Marsh, and on routes to it.
- Enhance the appearance of the carpark in Porlock Weir, e.g. through reducing informal signage.

<sup>1</sup> *Porlock Marsh is changing - Take a New Look*. Prepared by Porlock Parish Council, Exmoor National Park Authority, the National Trust, Porlock Manor Estate and Natural England.

- Raise public awareness and understanding of the Marsh. However, design and management of visitors and visitor facilities (e.g. bird hides) should remain sensitive to the special qualities of the Marsh, and should have minimal visual intrusion.
- Encourage litter clearance (particularly along the beach), e.g. through volunteer work parties.

Plan

- An underlying philosophy is for minimal intervention, with a focus on conservation, to let the Marsh develop naturally.
- Continue to inform local people of the changes taking place on the Marsh and why they are happening.
- Work with oyster farmers to consider visual impacts of infrastructure on the seascape, including the impacts of vehicles on archaeology, and the visual impacts of tyre tracks at low tide.

### Specific Planning Guidelines for Low Farmed Coast and Marsh

This section describes the planning guidelines which are specific to the Low Farmed Coast and Marsh Landscape Character Type. Please also see the general landscape planning guidelines in Part 3.

Defining qualities which need to be protected should new development occur, and which any new development should reflect:

Defining Quality to Protect	Perceived Threats and Issues	Guidance
The distinctive setting of Porlock Weir.	Within the Coastal Change Management Area, buildings lost to coastal change will be replaced in less vulnerable locations within the village or on the hill above.	New buildings should fit as closely as possible with the existing form of the village. They should be located below the current edge of the woodland in order to protect the wooded backdrop of the village.
Visual unity of built form - strong estate influence and local vernacular including slate and thatch roofs, chimneys and dormer windows, rendered building and use of local stone and rounded cobble beach stones.	Introduction of new materials and styles adjacent to historic buildings, undermining visual unity	Ensure use of traditional building materials, colours and styles in areas of historic settlement. There are also opportunities for a new reinterpretation of building design that reflect and reinforce landscape and settlement character.
Overall, a loose clustered settlement character.	Linear development undermining clustered character and backland/infill development eroding traditional low density.	Locate built form and layout to retain loose nucleated character; high density 'housing estate' character will not complement the character, scale or form of the settlements.

Defining Quality to Protect	Perceived Threats and Issues	Guidance
Close relationship of rural dwellings to landscape as a result of little to no curtilage. Where walls occur, they are often locally distinctive with beach cobbles as coping stones.	High density development with well-defined gardens which may undermine relationship of settlement to the wider setting.	Ensure new dwellings carefully consider the curtilage to reinforce the relationship between buildings and the wider landscape. Ensure landscape continues to penetrate built up areas through appropriate planting schemes and incorporating other landscape features/elements.
Undeveloped and open inland horizons.	Linear development (particularly along ridge between Porlock and Bossington) appearing on the horizon and creating a more urbanised character.	Integrate new development within (or well-related to) the existing built form of the settlement, avoiding elevated locations prominent in views from lower land.
Simple uncluttered curve of the bay and gently shelving accessible inter tidal waters popular for recreation.	Development of oyster farms and introduction of geometric patterns of trestles visible at low tide and associated usage of machinery along beach. Also impacts on the submerged forest and archaeology/	Ensure new oyster farms consider cumulative effects with existing farms. Ensure layout reflects shape of bay and headlands and ensure expanse of open undeveloped foreshore remains dominant. Aim to avoid areas popular for access to the sea.
On shore and shore line development.	Introduction of new buildings and access tracks on the foreshore which add visual clutter and visually disrupt the simple lines of the coast.	Reuse existing buildings wherever possible. New buildings should reflect the scale, form, materials and colour of traditional buildings. Storage areas should be carefully sited to avoid being visually obvious and cluttered



Above: View inland from Porlock Beach. Some linear development between Porlock and Bossington is visible on the horizon. Development can appear intrusive and affects the open and undeveloped character of the marsh in the foreground

Below: A typical Holnicote Estate cottage in Bossington, now owned by the National Trust. Note the beach cobbles used as coping stones on the wall, the round chimney and curved bread oven on the front of the building, and the use of local stone and thatch in construction. The creamy-yellow paint is currently used across the Holnicote estate, and creates a locally-distinctive character.





Remnant trees on Porlock Marsh