

Coastal Plain

Location

This sub type is found extensively around the Solway Firth, and to a lesser extent around the Duddon Estuary, Walney Island and Cartmel Sands. The sub type continues into the Lake District national park and is classified as sub type B3 – Coastal Plain in the Lake District National Park Landscape Character Assessment.

Key Characteristics

- Flat and slightly undulating coastal plain
- Long and narrow fields in undulating areas with larger fields in flat areas
- Intersected by shallow rivers and watercourses
- Hedges form main field boundaries
- Scarce tree cover
- Predominantly pasture with some arable in drier areas
- Frontiers of the Roman Empire - Hadrian's Wall World Heritage Site is a significant archaeological feature in the Solway
- Historic field pattern strongly linked to settlements

Physical character

The flat coastal plain is largely based on fluvial drift, marine alluvium and undulating boulder clay on Triassic mudstones and sandstones. The land is up to 15m AOD. This coastal landscape is subject to coastal erosion and flooding.

Land cover and land use

Improved pasture predominates in this agricultural landscape. In flatter areas the coastal plain is divided into large square fields surrounded by a linear matrix of drainage ditches. In undulating areas fields are often long and narrow and around historic settlements are derived

from the pattern of medieval common field farming in strips. In drier areas, particularly on boulder clay, arable crops are grown producing a patchwork of colour and texture. Rougher and marshy pasture with rushes or gorse scrub occur around the moss, saltmarsh fringes and along watercourses.

Proximity to the sea is a major influence on land cover. Field division is primarily by hedges with or without cobblestone banks (kests), but replaced with fences, particularly on more marginal farmland. On the exposed coasts hedges tend to be sparse, sometimes with gorse, and tree cover is often sparse. Thicker hedges and wind sculpted hedgerow trees are scattered in more sheltered areas. Further inland small copses or shelterbelts, associated with farms or churches are prominent features along with the thicker hedges. Birch woodland occurs on the edges of the mosses providing shelter and enclosure. Around the head of the Solway and Levens estuaries small coniferous and deciduous plantations are found, associated with large estates.

Coastal villages tend to be vernacular in character and nucleated and closely knit with stone walls for shelter. They are usually the most prominent feature on the skyline. Inland, buildings are more spread out and softened by hedges. Roads and railway lines, both operational and disused, form strong linear features that cut across the plains. These features are reinforced by scrub and woodland growing alongside.

Telecommunications masts and pylons provide prominent and contrasting vertical features in some of the areas. In parts of the Solway, the coastal plain adjacent to the mosses are characterised by 20th century military sites that include airfields, radar and radio installations. These are isolated developments and do not dominate the overall agricultural character of the landscapes.

Ecology

As this is some of the most agriculturally improved land in Cumbria, ecological interest is largely confined to small areas of remnant lowland raised mires and coastal and floodplain grazing marsh habitats. The former are mostly wooded with birch or Scot's pine, with only small areas of open mire vegetation. These woods are often important for red squirrel. The coastal and floodplain grazing marsh habitats support large flocks of wintering barnacle geese, pink-footed geese and whooper swan, particularly around the Solway. This agricultural landscape is also important for farmland birds, particularly barn owl and corn bunting, with most of the few remaining Cumbrian populations of the latter species occurring in this landscape type. The grazing marsh supports a range of plants including creeping bent and marsh foxtail. In wetter field margins greater reedmace, reed canary grass, water plantain and sedges are supported. The lower reaches of both the River Esk and River Eden flow through this landscape and both are important for otter and Atlantic salmon. The banks of these rivers also provide nest sites for sand martins.

Historic and cultural character

The coastal plain has a highly nucleated settlement pattern with evidence of the late enclosure of former common arable outfields. The settlements are characterised by vernacular buildings constructed of local stone with red sandstone, a feature of the north of the county. Many of these buildings date to the seventeenth and eighteenth centuries. In general the character of this landscape type has strong and discernable links to its past development. On the Solway Plain salt pans can be found. Clay built buildings are a characteristic feature too. Amongst the characteristic archaeological remains are former sea defences but the most significant archaeological feature is Hadrian's Wall, which, west of Carlisle, runs through the Solway Plain. Some present villages such as Burgh-by-Sands occupy the sites of former Roman forts along the Wall. Other cultural features include a monument to Edward I.

Perceptual character

The impression varies according to distance from the open sea and the local topography. Open, flat, larger scale landscapes with big expansive skies and long views of the sea and Lakeland and Scottish Fells contrast with undulating enclosed and intimate landscapes. Land cover patterns tend to be simple with farms and copses standing out as prominent features. Marginal farmland on the fringes can appear neglected. Outer coastal plains are strongly influenced by the sea with wind sculpted hedges and trees providing a sense of exposure to natural processes. Here experiences are influenced by the seasons and the weather and can leave you feeling tranquil and calm when the weather is good to vulnerable and exposed in stormy and poor weather. All areas have the appearance of peaceful backwaters relatively unspoilt by 20th century development.

Sensitive characteristics or features

The medieval field patterns and traditional scale vernacular villages are sensitive to village expansion and changes in land management. The open character of the exposed coastal farmland is sensitive to development. The open views across adjacent marshes and flats out to sea and inland to the Lakeland Fells are sensitive to large scale infrastructure development. Wind sculpted hedges and trees and traditional kest hedges are sensitive to changes in land management.

Vision

This working landscape is well maintained and supports a diverse range of wildlife habitats.

The impacts of agricultural intensification will be minimised and traditional farming practices will be supported resulting in the restoration and management of key features such as hedgerows, hay meadows, semi-natural and native woodland and historic field patterns. Any opportunities to restore semi-natural wetland will be exploited enriching wildlife and visual diversity. The contrasting open fields enclosed by bold masses of woodlands will be strengthened while the scattered pattern of isolated mature trees and clumps will be reinforced and conserved. Some diversification of farmland to new crops and recreational uses will

be accommodated and encouraged where it will benefit local character. Hadrian's Wall is a key feature within this type and will be conserved and maintained. Some infrastructure and energy developments will be accommodated in the landscape should they be designed carefully and sited appropriately.

Changes in the Landscape

Over the next 10 – 20 years this landscape could be subject to the following changes or issues:

Climate Change and Coastal Processes

- Areas close to the sea could be affected by rises in sea level, increased storminess, coastal erosion and the proposals of shoreline management plans.

Management Practices

- The switch from hay making to more intensive silage production changes the nature and biodiversity of the landscape.
- The drainage and improvement of wetland, remnant mires, grazing marshland and floodplain reduces the varied land cover and biodiversity. It can also reduce the remnant mire potential for carbon sequestration.
- The removal and neglect of hedges and move away from traditional maintenance practices erodes the distinctive character.
- Loss of farmland wildlife could be due to more intensive farming practices.
- Loss of woodland can reduce the biodiversity and interest of the landscape.

Development

- Proposals linked to tidal energy could lead to new infrastructure in the coastal plain which could affect the open and distinctive character of the landscape.
- This area could be affected by an upgrade to the national grid resulting in new pylons. These are needed to support future energy infrastructure and provide a stable and secure energy supply in Cumbria. New, larger pylons could affect the open character of the landscape.
- Developments such as new industrial scale farm buildings could impact on this type if they are introduced in large numbers or, if they lead the way for proposals for similar developments.

- Farm diversification could lead to an increase in the use of farm land for horse grazing and equestrian uses could result in changes to field patterns and boundaries. An introduction of stables and ménages could cause incremental change the character of the farmed areas.

Access and Recreation

- Over the next decade the planned implementation of enhanced access to the whole of the English coast could result in some disturbance to wildlife in sensitive locations, at certain times of the year.
- Coastal access will be improved to support the coastal open access programme. Space will be needed to allow the route to shift in this dynamic area and in response to any future coastal erosion.
- Visitor numbers could increase in these areas linked to the roll out of coastal access, and attractiveness of adjacent National Park areas. This could lead to the need for better management of sensitive parts of the landscape.

Guidelines

Climate Change and Coastal Processes

- Restrain development in areas susceptible to flooding to allow the land to possibly be grazed, drained or returned to wetland should areas of this landscape become liable to flooding due to climate change.
- Encourage Shoreline Management Plan responses to be sensitive to undeveloped nature of parts of the seascape.

Natural Features

- Allow suitable marginal land, which in the past has been reclaimed to agriculture to revert to mossland, saltmarsh or wet grassland.
- Reduce further drainage works that would result in the loss of wetland, hedges or trees and encourage sensitive ditch management to support wetland enhancement.
- Maximise opportunities to improve floral diversity along verges, dykes or ditches through reprofiling banks, extending clearance cycles, working short stretches to allow recolonisation and restricting herbicide use.

- Reinforce existing woods by appropriate management, natural regeneration, and exclusion of stock and restocking of plantations.
- Plant new woodland belts to ameliorate existing conifer plantations, enhance significant views and reduce the visual dominance of transmission lines.
- Consider the planting of willow coppice or other energy crops on farmland that avoids grazing marshland habitats and raised mires.
- Plant new hedgerow trees to replace maturing stock using indigenous species, or tagging selected saplings avoiding obstruction of attractive open vistas.
- Undertake small scale native woodland planting concentrated around villages and farmhouses to form visual islands on the coastal plain and soften the forms of new farm buildings.
- Encourage small scale woodland planting along field margins to develop ecological corridors and link with hedgerows.

Cultural Features

- Restore fenced boundaries to traditional hedgerows involving replanting and renovation of gappy overgrown hedges.
- Discourage the introduction of fences to replace or gap-up hedgerows.
- Manage hedgerows in a traditional way involving a cycle of hand laying and trimming.
- Restore and maintain locally distinctive boundary treatments such as cobblestone and turf hedge banks.

Development

- Minimise the impact of major developments such as large scale wind energy, roads, pylons, masts and infrastructure linked to offshore developments by careful siting to maximise screening from public view and high standards of design and landscape treatment. Open and exposed sites and those that affect key views should be avoided, especially where development would become the dominant feature.
- Reduce the impact of new farm buildings by careful siting, breaking down mass, choice of sympathetic colours and non-reflective finishes and screen planting.
- Encourage horse grazing and equestrian uses to respect field boundaries and field patterns. Stables and other facilities should be sited sensitively with appropriate landscape mitigation to prevent the erosion of the pastoral farmland character.

Access and Recreation

- Support the roll out of coastal access and encourage sensitively sited coastal access and recreational infrastructure. Coastal access footpaths, areas and facilities should be improved and developed to be compatible with the undeveloped and natural character of this sub type.
- In areas where coastal access will introduce new routes appropriate access management may be needed in sensitive locations at certain times of the year to minimise disturbance to wildlife.