

## NCA 20 Morecambe Bay Limestones

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### *Overview*

The landscape character across most of the NCA is defined by its limestone geology, which forms an arc around the northern end of Morecambe Bay with its extensive intertidal flats and salt marshes. To the south of Kendal, however, the landscape is dominated by a drumlin field left by the retreat of glaciers from the last Ice Age, where smooth rounded hills support wet acid soils. It is included within Western Mixed Agricultural Landscape Type. The rivers flowing into Morecambe Bay are mature as they pass through the NCA, creating wide, shallow valleys. In addition to the Leven and the Kent, key rivers include the Crake, the Lyth, the Bela and Keer. Outcrops of limestone in Arnside Silverdale, Whitbarrow and Hutton Roof support mosaics of limestone habitats including extensive areas of woodland, pavement, scree and species-rich grassland. Whitbarrow and Witherslack, on the northern coast of Morecambe Bay, are within the Lake District National Park, also a World Heritage Site, whilst Arnside Silverdale is an AONB. Around the coast of Morecambe Bay, there are extensive areas of salt marsh and intertidal mud flats. The low-lying Lyth Valley has been reclaimed and improved, and is protected by manmade defences. It is an intensively farmed area of large, regular fields enclosed by hedges and drainage ditches, but mostly treeless. Further east, however, in the Arnside Silverdale area, formerly reclaimed land has been restored to wetland, for example at Leighton Moss. Settlement is a mix of farmsteads, hamlets and villages, with the market town of Ulverston, being the largest town. Other significant settlements include Milnthorpe, a market village, and Grange-over-Sands, Arnside and Silverdale, all of which developed as resorts in the late 19<sup>th</sup> and early 20<sup>th</sup> centuries. The area is largely rural in character, with quarrying the major industry, although many are now redundant. As with the adjacent South Cumbria Low Fells NCA, there is extensive woodland, covering 15% of the NCA. Of the total woodland area, over 40% is ancient woodland. The character of the woodland is varied, and much of it is associated with limestone outcrops. Large areas are managed as coppice; there are ancient stands of yew, often growing directly from the surface of the limestone and there are also areas of grazed wood pasture and species-rich scrub.

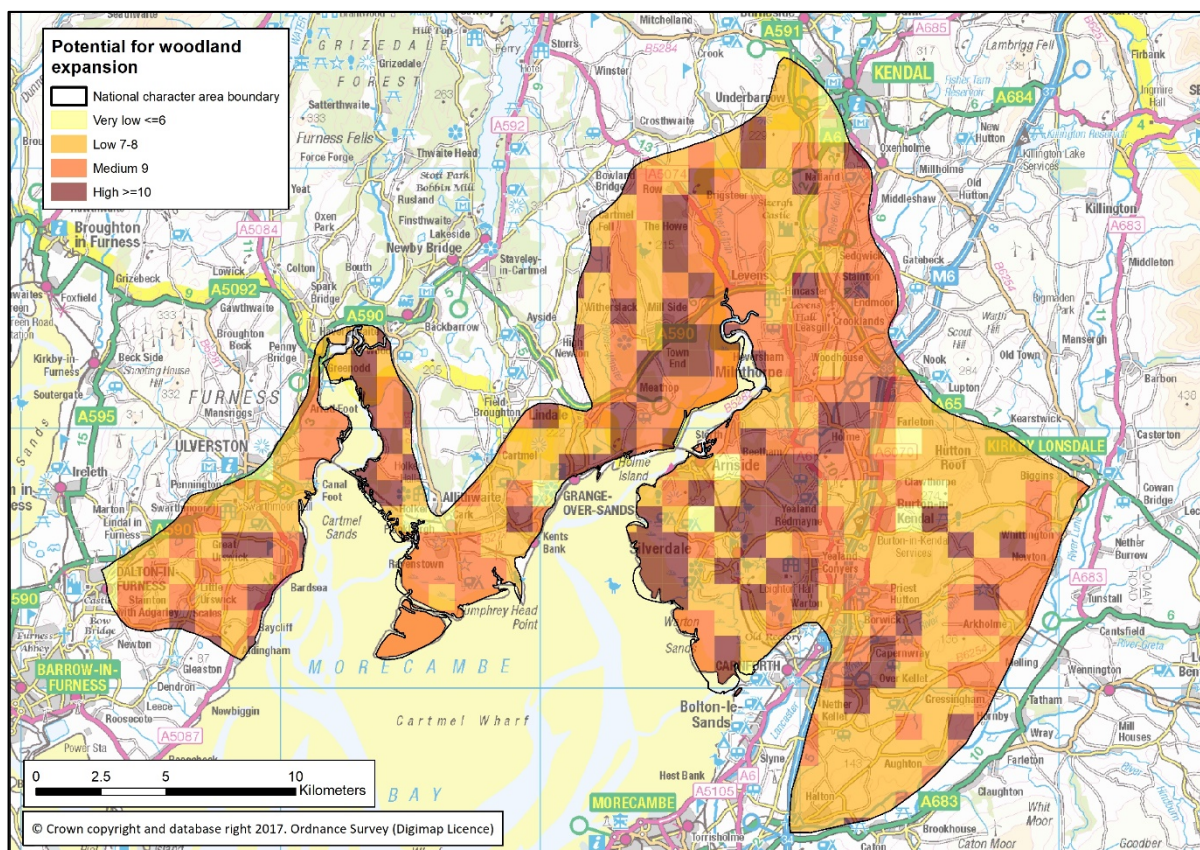
### *The Historic Environment Character*

Prehistoric monuments are scattered across the higher land within the NCA, and include defended settlements, stone circles and burial cairns. They survive well as earthwork monuments as most are in areas of permanent unimproved pasture or open common rough grazing. Little is known about the Roman period in this area, and early medieval activity is known mostly through stray finds and hoards. Those parts of the NCA in the Furness and Cartmel peninsulas were largely under the control of Furness Abbey and Cartmel Priory, where the better-quality land was farmed as arable, but the low-lying wetlands, salt marshes and unenclosed limestone were used as grazing for cattle and sheep. The ancient woodlands at the head of the Leven estuary were part of the extensively wooded areas of High Furness which was used as fuel for the iron industry from the medieval period onward. It was the value of such woodlands as fuel, as raw material for bobbin-making and for manufacturing charcoal for the gunpowder industry from the 19<sup>th</sup> century, that has contributed to its survival. Settlement in the medieval period was largely dispersed in the form of individual farmsteads and hamlets. Although there are some true defensive

buildings within the NCA, such as Beetham Hall, the area is characterised by late medieval buildings with defensive attributes. Though often categorised as ‘pele’ towers, many are surviving solar towers to halls that were subsequently demolished, such as Hazelslack and Wraysholme. Others, such as Arnside, are true tower houses, the purpose of which is not fully understood. The use of defensive features is likely to have been a way of expressing wealth and influence rather than acting as real strongholds. With the arrival of the railway in the 19<sup>th</sup> century, the area became popular with visitors, leading to the development of coastal resorts in Grange-over-Sands, Arnside and Silverdale. In the 20<sup>th</sup> century, settlements expanded as the area became popular as a retirement area.

### *Opportunities for Woodland Expansion*

The mapping of historic and natural environment attributes indicates that this area has a high potential for woodland expansion. In particular, the mapping identifies areas within the Cartmel peninsula and in Arnside Silverdale as areas where woodland cover could be expanded, and this fits with the recommendations made in the NCA profile. The mapping also highlights a strip along the east side of the Furness peninsula. This would be suitable for new woodland as long as care was taken to avoid archaeological monuments and took account of the historic field pattern. Woodland could be planted along valley sides and in areas of late enclosure, but should avoid the well-defined former medieval field systems.



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