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Key characteristics

- A broad elevated east–west chalk ridge with a predominantly steep north-facing scarp slope and a gentle southerly dip slope, breaking into a series of hills in the west and terminating in distinctive chalk cliffs in the east.
- Cliffs between Beachy Head and Seaford Head are part of a Geological Conservation Review (GCR) site of international importance for its landscape and for research into coastal geomorphology.
- The principal rivers – the Arun, Adur, Cuckmere and Ouse – slice through the eastern half of the downs as wide U-shaped valleys with steep sides and flat alluvial flood plains with intensive dairying and crops, and characterised by criss-crossing ditches and meandering river channels. The meanders of the River Cuckmere by Seven Sisters chalk cliffs are particularly significant. Remnant wetland habitats including flood plain grazing marsh, fens and reed beds.
- Chalk streams running off both the north- and south-facing scarp slopes providing a key habitat for the scarp and the flood plain landscape, supporting species such as the brown trout.
- Woodland a feature of the central downs and, to a lesser extent, the western downs, also concentrated on the steep scarp slopes, consisting of both broadleaved, mostly ancient, woodland with beech, veteran trees, ash and sycamore, and conifers, with some large plantations. Kingley Vale National Nature Reserve (NNR) contains a wealth of yew woodland.
- Several different types of heathland habitat, including wet heath, wooded heath and chalk heath dependent on loess soils. Lullington Heath NNR near Eastbourne is one of the largest areas of chalk heath in the UK.
- The eastern downs characterised by large open arable and grassland fields, mostly enclosed by the 16th century, with a general absence of woodland and hedgerow boundaries, creating an open, exposed landscape. To the west of the River Arun, where holdings were smaller and ‘sheep-and-corn’ farming less important, hedgerows enclose medium to large irregular fields between the woodlands and designed parkland landscapes, the latter a particular feature of the central areas.
- Poor soils on the north-west area of the downs with patches of birch woodland, conifer plantation, bracken and rough grassland. The Gault Clay forms shallow, gently rolling lowland crossed by many streams flowing northwards. On the chalk hills, the infertile soils are generally thin, well drained and rich in calcium.
- Distinctive fragments of semi-natural chalk grassland dotted with chalk springs on scarp and combe slopes, with important associated habitats including rare chalk heath and species-rich chalk scrub.

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Key characteristics continued

- A vast array of wildlife such as otters and barn owls; lesser known species such as the barbastelle bat, the chalk carpet moth, sundews (carnivorous plants) and the round-headed rampion, the county flower of Sussex; threatened species include the bee orchid, small blue butterfly and nightjar.
- Roads and villages concentrated in the river valleys, the more elevated areas sparsely settled with scattered farmsteads. The eastern end of the Downs is squeezed against the coastal plain conurbations of Brighton and Hove, and Worthing, which contain a wealth of architecture and give the area a strong sense of identity. There is also an almost continuous string of seaside towns: Rottingdean, Saltdean, Peacehaven, Newhaven and Seaford.
- Flint, brick and timber frame conspicuous in the built environment in walls, buildings, churches and barns, while roofs are of tile, slate or traditional thatch. The South Downs was once lined with windmills, some of which survive.
- Bronze-age round barrows and prominently sited iron-age hill forts, such as Cissbury Ring and Old Winchester Hill, are notable prehistoric features of the scarp and hill tops, especially in the west, as well as Mount Caburn in the east, and further bronze-age barrows and a causewayed camp at Willingdon (most of which are designated as Scheduled Ancient Monuments).
- The Long Man of Wilmington – a large hill figure located on the steep slopes near Eastbourne. One of only two extant human hill figures in England, it is 69 metres tall and is designated as a Scheduled Ancient Monument. Current archaeological research suggests that it dates from the 16th or 17th century. Others believe it to be more ancient, perhaps contemporary with the nearby Neolithic flint mines and barrows, or the work of medieval monks from Wilmington Priory.
- Public rights of way following drove roads and ancient routes along the accessible downland tops, benefiting from panoramic views across the downs and the Low Weald NCA. Roads and lanes striking across the downs perpendicularly and following historic tracks that originally brought livestock to their summer grazing.

Landscape attributes

Landscape attribute	Justification for selection
A broad elevated east-west chalk ridge with a steep north-facing scarp slope and a gentle southerly dip slope, cut by numerous dry valleys and combs.	- The chalk ridge and its carved topography define the South Downs and its landscape character, and are prominent in views from surrounding areas. - The distinctive carved topography is important for geomorphology, most pronounced in the eastern half of the NCA. - Panoramic views across the downs and the Low Weald from the scarp and hill tops are a particular feature of the NCA.
Chalk cliffs at the eastern end of the NCA and important inland exposures of chalk in old quarries and on some steep scarp slopes.	- The eastern chalk cliffs around Beachy Head and Seven Sisters form part of the Sussex Heritage Coast and are highly distinctive landscape features. Small but significant chalk areas occur at the mouths of estuaries and along the developed and undeveloped coastline, at risk from 'coastal squeeze' due to various factors including sea level rise. - The chalk cliffs are constantly eroding and support a range of specialised plants, including algae, and provide nesting sites for fulmar, kittiwake and peregrine falcon. - Inland exposures provide opportunities to study the Chalk geology, are often starkly prominent and have wildlife habitats at threat from infilling and scrub encroachment. - Cliffs between Beachy Head and Seaford Head form a Geological Conservation Review (GCR) site of international importance for its landscape and research into coastal geomorphology.
Remnant areas of species-rich chalk grassland surviving on the steep scarp and valley slopes, most notably in the east, with associated rare chalk heath and species-rich scrub habitats.	- Chalk grassland is a defining habitat of the South Downs chalk ridge. - The chalk grassland supports a diverse array of scarce plants and important populations of invertebrates and breeding birds if in close association with arable production. - Remnant areas form a significant proportion of the remaining British species-rich chalk grassland resource, with several areas of international importance, designated Special Area of Conservation (SAC), and significant Sites of Special Scientific Interest (SSSI), many at risk due to a lack of traditional grazing. - Rare chalk heath occurring in association with loess deposits and species-rich chalk scrub, including juniper scrub in the West Sussex and Hampshire, are important wildlife habitats.

Landscape attribute	Justification for selection
Large areas of ancient and broadleaved woodland within the western half of the NCA, and localised areas in the east.	■ Ancient woodland is a particular feature of the central downs and, to a lesser extent, the west, and includes relict large-leaved lime woodland, the distinctive ash and beech hangers of the scarp, including Duncton to Bignor escarpment Special Area of Conservation (SAC) (with the East Hampshire Hangers SAC falling outside the NCA to the north), and the notable yew woodland of West Sussex, including several areas of international importance. ■ In this area there can be found a significant population of surviving English elm, the greatest concentration worldwide.
Rivers and associated wetland habitats, including the principal rivers of the Arun, Adur, Ouse and Cuckmere in the east, and the chalk River Meon in the west and the winterbournes of the chalk ridge.	■ The four principal eastern rivers cut through the Chalk in distinctive U-shaped valleys, their flood plains largely drained and agriculturally improved and their courses often engineered. ■ Arun Valley is internationally designated as a RAMSAR site and also as a Special Protection Area (SPA). ■ The Cuckmere estuary is of particular importance and although affected by human intervention, it is the only undeveloped estuary in the south-east of England. ■ The River Meon has typical chalk stream ecology, with remnant wetland habitats including wet meadows and watercress beds under threat due to lack of traditional management.
Coastal habitats including saline lagoons, vegetated shingle, estuaries and saltmarsh, chalk and greensand reefs.	■ Small but significant areas at the mouths of estuaries and along the developed and undeveloped coastline are at risk from 'coastal squeeze' due to sea level rise. ■ Coastal environments include cliff tops, cliff faces, wave-cut platforms, beaches, coastal springs and salt marshes. ■ Chalk cliffs and inland chalk exposures support a range of specialised plants including algae and provide nesting sites for fulmar, kittiwake and peregrine falcon, as well as other coastal habitats including saltmarsh and vegetated shingle. ■ The South Downs Way National Trail provides easy access to the coastline for the local population and visitors alike.
Large historic parklands are a feature of the central downs.	■ Examples include, Uppark, Stansted, West Dean, Goodwood and Arundel. ■ Large numbers of ancient and veteran trees and associated flora and fauna. ■ Designed landscapes represent many phases of the development of the English landscape Collections of native and non-native trees provide a bright assemblage of autumn colours. ■ Largely accessible by the public, providing opportunities for recreation.

Landscape attribute	Justification for selection
A strong field pattern enclosed by hedgerows with numerous hedgerow trees.	- Hedgerows enclosing medium to large irregular fields in the western half of the NCA, with hedgerow trees typically marking the outer boundary of the flood plain within the principal valleys. - Hedgerows provide important wildlife habitats and linkages between the woodlands and parklands of the western downs, while reinforcing historic field patterns. - Hedgerows support a range of species-rich flora and fauna.
Dispersed downland settlement of villages mainly within valleys and scattered farmsteads, with local vernacular of flint and brick plus roofs of tile or slate.	- Settlement pattern is typical of the downland area, with villages established where water is available in valleys. and along spring lines. - Flint is a particularly distinctive building material of the South Downs.
Prominent and accessible heritage assets.	- Bronze-age round barrows and prominently-sited iron-age hill forts on the scarp and hill tops, especially in the west. - Earthworks, including one of the best examples of Neolithic enclosures in the country, the Trundle, and medieval lynchets on steeper pasture slopes, - Mixed use farmsteads which reflect the variety of the South Downs landscape. - Hill figures such as the mysterious Long Man of Wilmington.
Drove roads and ancient routes along the accessible downland tops that provide rights of way and contribute to recreation.	- The NCA is predominantly covered by National Park designation, and is particularly well used and highly valued as a recreational resource. - The South Downs Way National Trail. - Around 4,500 ha of open access land (4.4 per cent of the NCA).

Landscape attribute	Justification for selection
Expansive views from open scarp, hill tops and beyond.	- Large open skies and distinctive panoramic views. - The dramatic scale of the landform and the large swathes of chalk grassland and woodland create a large-scale exposed landscape which is dominant in views from an extensive area beyond the South Downs. - From open summits there are panoramic views across the lowlands to the north. The scarp forms a distinctive backdrop ridgeline in views from this area – a symbolic feature of the South Downs.
Tranquillity.	41 per cent of the NCA is classified as undisturbed. - Tranquillity, actual and perceived, is an important feature of the South Downs, especially within the context of surrounding development – it is primarily associated with the open scarp and hill tops and the woodland and parkland landscapes. - Extensive development and major roads that cut through the east of the NCA plain poses a significant threat to the tranquillity of the adjoining downland, as do the major roads that cut through the chalk ridge – very little ‘undisturbed’ land remains along the open eastern downs according to the CPRE Intrusion map. - The steepness of the scarps means there is little human activity in these landscapes. As a consequence they are peaceful, which combined with the swathes of chalk grassland, scrub and woodland, are perceived as highly natural and tranquil.
The city of Brighton and Hove and large coastal towns such as Eastbourne and Worthing.	- The city of Brighton and Hove is a former historic seaside tourist resort and contemporary centre for the arts, digital industries and conferences. The city developed through Regency and Victorian times to expand over the surrounding hills and valleys in to the last century. - Brighton and Hove, Eastbourne, Worthing and other coastal towns provide a strong sense of history with their distinct architecture and Regency and Victorian associations such as Brighton Pavilion, a former royal palace built as a home for the Prince Regent during the early 19th century and notable for its indo- gothic architecture and oriental interior. - The National collection of elms in Brighton provides a valuable example of genetic diversity with many trees being exceptionally rare. English elm in Brighton is the largest population worldwide. This collection includes seven endangered types of elm.

Landscape opportunities

- Conserve the tranquillity and special character of the chalk ridge, conserving the dispersed downland settlement pattern and traditional flint vernacular, as well as drove roads and ancient routes along the accessible downland tops that afford panoramic views over the downs and the Low Weald.
- Manage recreational pressures to protect historic rights of way and tranquillity.
- Protect and manage the area's geodiversity, conserving important inland exposures and the distinctive chalk cliffs along the eastern coastline by ensuring that active coastal processes enable them to be sustained providing nesting sites for fulmar, kittiwake and peregrine falcon.
- Conserve distinctive earthwork features that include bronze-age barrows and iron-age hill forts, and restoring and managing historic estate and parkland landscapes that are a particular feature of the central downs.
- Managing and significantly enhancing the area's rivers and their associated wetland habitats, through the restoration of river geomorphology and the expansion of flood plain habitats to help manage river flooding.
- Positively manage and expand the area's broadleaved woodlands, ancient woods and parklands, seeking opportunities for the restoration of planted ancient woodland sites. Conserve the English elms surviving in the Ouse and Cuckmere valleys. Bring areas of ancient and/or semi-natural woodland under sustainable management, especially the internationally designated beech hangers and yew woodlands, expanding and re-linking woodlands to enhance landscape character and provide a robust habitat with enhanced adaptation to climate change.
- Traditional management practices should be re-introduced to conserve remnant wetland habitats include flood plain grazing marsh, reedbeds and fens.
- Manage and significantly enhance the area's rivers and river valley landscapes through restoration and significant re-linking of wetland valley habitats including lowland meadows, reedbeds, fens and flood plain grazing marsh, and restoring natural river morphology of engineered sections where of particular benefit to biodiversity.

Landscape opportunities continued

- Manage and enhance the agricultural landscape, including the restoration and management of hedgerow boundaries on the western downs and slopes within river valleys to enhance the wildlife network.
- Conserve historic field patterns and create conservation headlands and field margins and promote winter stubble on the arable-dominated dip slope for the benefit of farmland birds and wildflowers.
- Plan for a landscape-scale expansion of semi-natural chalk grassland within appropriate fields of thin chalk soil on the chalk plateau and dip slope, protecting existing valued habitat and assemblages of species. Identify opportunities for linking, expanding and restoring existing fragments on the scarp and valley slopes to create a robust, inter-linked wildlife network with enhanced adaptation to climate change.
- Plan for an evolving landscape outside of the National Park surrounding the south-eastern conurbations, maintaining food production and areas of semi-natural woodland that help to preserve and enhance the tranquillity of the National Park while maintaining the expansive, open downland character of its eastern extent.
- Plan for the regeneration and replanting of existing, predominantly, small hill-top beech plantations particularly in the west and east chalk uplands.
- Encourage restoration and ongoing management of estate and parkland landscapes and the management and conservation of veteran parkland trees for biodiversity and heritage value.

Photo credits

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Key characteristics

- Low-lying, undulating plain abutting the chalk downs to the north and the coastal plain and Southampton Water to the south. An underlying geology of open marine, estuarine and freshwater Tertiary gravels. Soils over much of the area are heavy and clayey with localised pockets of more freely draining soils on higher land.
- Fast-flowing chalk rivers in wide, open valleys with watermeadows and riparian vegetation that provide valuable wildlife habitats for species such as breeding and overwintering birds, otter, water vole, Atlantic salmon, brown trout and the endangered, native white-clawed crayfish.
- Well-wooded farmed landscape (particularly to the east of Southampton), characterised by ancient woodland such as Botley Wood and West Walk, the remnants of the Royal Hunting Forest of Bere.
- Mixed agricultural landscape dominated by pasture with small pockets of horticulture and arable.
- An intimate and enclosed field pattern with many small and irregular fields generally bounded by mixed-species hedgerows or woodland.
- In parts, a very urban NCA dominated by the city and port of Southampton and other large towns such as Waterlooville and Havant. The more rural hinterland is characterised by small, loosely clustered or dispersed settlements, intermixed with isolated farmsteads.
- Fragmented by major transport links, including the M3 to London and the M27 to Portsmouth which cross the NCA.



The mudflats of the Solent and Southampton Water SPA support a wide assemblage of waders and waterbirds.

Landscape attributes

Landscape attribute	Justification for selection
Portsdown Hill, a distinctive outlying spine-like chalk ridge.	■ Distinctive spine-like ridge which provides wide views across Southampton Water and a dramatic backdrop to Portsmouth to the north of the city. ■ Valuable unimproved chalk grassland, home to several rare chalk grassland species including the endemic early gentian. ■ Important resource locally for recreation.
Well-wooded landscape including extensive tracts of ancient semi-natural woodland.	■ 18 per cent of the land cover of the NCA is woodland of which 46 per cent is classed as ancient semi-natural woodland. ■ About three-quarters of the woodlands in the NCA are broadleaved. ■ Much of the woodland resource is the remnant of the historic Royal Hunting Forests of Melchet, Buckholt, Bere Ashley and Forest of Bere Portchester. ■ Woodlands along the Upper Hamble are notable for stands of small-leaved lime a species in decline elsewhere in Britain. ■ Estuary edge woodlands such as those found along the Hamble are significant riverine habitats and show an unusual type of succession, from woodland through brackish marsh to salt marsh.
A patchwork of small, intimate and irregular fields often bounded by hedges of mixed species, sometimes with mature oak hedgerow trees.	■ Historic pattern of field shape and size, a mixture of late enclosure, assarts and former commons on low-lying undulating farmland. ■ Intimacy and enclosure created by lush species-rich hedgerows with numerous field boundary trees, often oak. ■ Remnant assart fields reveal historic and more recent incursion into the Forest of Bere.
Well managed farmland including a mosaic of semi-natural habitats.	■ Mixed farmland and woodland dominated by pasture and livestock farming. ■ A wealth of nationally and internationally important habitats particularly diverse semi-natural grasslands including watermeadows, chalk grassland and wood pasture.
Chalk rivers flowing through wide lush river valleys to their estuaries in Southampton Water.	■ The Itchen and Test are considered to be among the finest examples of chalk rivers anywhere in the world. ■ The fast-flowing rivers support many rare or scarce species such as the southern damselfly, otter and the white-clawed crayfish. They also provide an important spawning ground for wild brown trout and salmon. ■ Wide river valley bottoms with watermeadows and riverine and estuarine vegetation that supports valuable national and international wildlife habitats. ■ Open views within the river valleys contrast with the surrounding more intimate enclosed undulating farmland landscape.
Rural character increasingly influenced by urbanisation and urban fringe.	■ Villages loosely clustered together and small farms and houses dispersed through the countryside. ■ Network of small roads and lanes link settlements and farms.

Landscape opportunities

- Plan for the sustainable development of Southampton and Portsmouth so that the economic benefits can be enjoyed while avoiding any impact on the designated sites within the NCA and the neighbouring New Forest and South Downs National Parks and Chichester Harbour AONB.
- Encourage and develop a strong green infrastructure network in and around urban and industrial developments to improve quality of life, increase access to recreational facilities and the natural environment for the local population, and to relieve pressure on sensitive sites within and adjacent to the NCA while making a positive contribution to local character.
- Manage development, encourage new tree planting and restore/maintain grassland within the historic Forest of Bere to halt further fragmentation of the woodland and farmland and strengthen its rural character and biodiversity interests.
- Extend and link areas of ancient woodland for benefits to biodiversity, recreation and sense of wellbeing.
- Encourage the replacement of conifers with tree species native to the area on ancient woodland sites where appropriate.
- Promote the restoration of traditional woodland management including a coppicing regime for broadleaved woodland.
- Manage, restore, link and replant hedgerows and hedgerow trees to maintain and strengthen field boundary patterns to contribute to the well-wooded character of the NCA.
- Maintain, manage and link areas of unimproved grassland, meadows and pastures, encourage rough woodland edges and the maintenance/ construction of ponds within a woodland framework to strengthen pastoral character of farm land and increase wildlife habitats.
- Encourage the restoration, extension and linking of meadow and riparian habitat along the chalk rivers particularly in the Itchen and Test valleys to maintain and improve water quality and biodiversity. Where possible, encourage the traditional grazing of watermeadows.
- Encourage farmers and landowners to engage with the Catchment Sensitive Farming Programme to benefit/improve water quality and management.
- Protect and manage remaining areas of mudflats and other intertidal habitats along Southampton Water and the river estuaries.
- Promote tranquillity for wellbeing and prosperity through measures such as buffering major roads with native woodland and the provision of sustainable transport options.

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