National Character Area profile:

122: High Weald

Supporting documents



NATURAL ENGLAND

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Introduction

As part of Natural England's responsibilities as set out in the Natural Environment White Paper[1], Biodiversity 2020[2] and the European Landscape Convention[3], we are revising profiles for England's 159 National Character Areas (NCAs). These are areas that share similar landscape characteristics, and which follow natural lines in the landscape rather than administrative boundaries, making them a good decision-making framework for the natural environment.

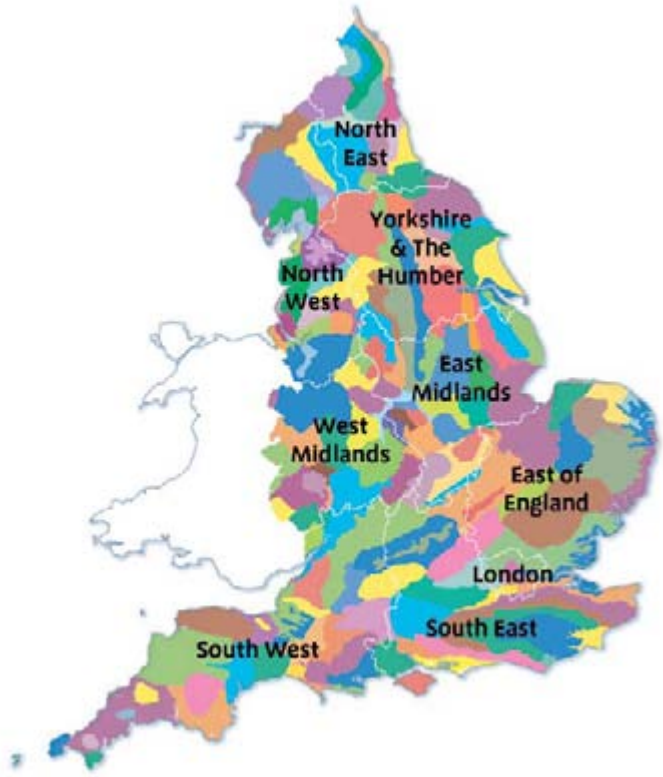
NCA profiles are guidance documents which can help communities to inform their decision-making about the places that they live in and care for. The information they contain will support the planning of conservation initiatives at a landscape scale, inform the delivery of Nature Improvement Areas and encourage broader partnership working through Local Nature Partnerships. The profiles will also help to inform choices about how land is managed and can change.

Each profile includes a description of the natural and cultural features that shape our landscapes, how the landscape has changed over time, the current key drivers for ongoing change, and a broad analysis of each area's characteristics and ecosystem services. Statements of Environmental Opportunity (SEOs) are suggested, which draw on this integrated information. The SEOs offer guidance on the critical issues, which could help to achieve sustainable growth and a more secure environmental future.

NCA profiles are working documents which draw on current evidence and knowledge. We will aim to refresh and update them periodically as new information becomes available to us.

We would like to hear how useful the NCA profiles are to you. You can contact the NCA team by emailing ncaprofiles@naturalengland.org.uk

National Character Areas map



[1] The Natural Choice: Securing the Value of Nature, Defra (2011; URL: www.official-documents.gov.uk/document/cm80/8082/8082.pdf)
[2] Biodiversity 2020: A Strategy for England's Wildlife and Ecosystem Services, Defra (2011; URL: www.defra.gov.uk/publications/files/pb13583-biodiversity-strategy-2020-111111.pdf)
[3] European Landscape Convention, Council of Europe (2000; URL: http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm)

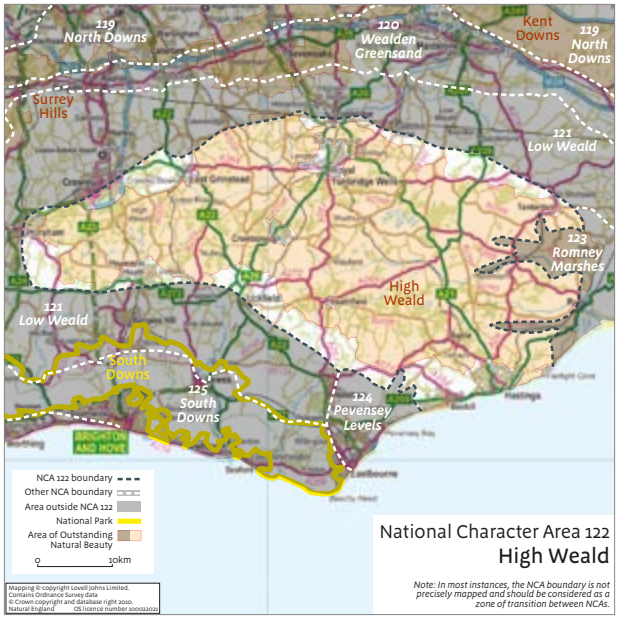
Summary

The High Weald National Character Area (NCA) encompasses the ridged and faulted sandstone core of the Kent and Sussex Weald. It is an area of ancient countryside and one of the best surviving medieval landscapes in northern Europe. The High Weald Area of Outstanding Natural Beauty (AONB) covers 78 per cent of the NCA. The High Weald consists of a mixture of fields, small woodlands and farmsteads connected by historic routeways, tracks and paths. Wild flower meadows are now rare but prominent medieval patterns of small pasture fields enclosed by thick hedgerows and shaws (narrow woodlands) remain fundamental to the character of the landscape.

Some 26 per cent of the NCA is covered by woodland, comprising wooded shaws, pits and gills, farm woods and larger woods; of this 26 per cent, 17 per cent is ancient semi-natural woodland and 5 per cent is ancient replanted woodland. The majority of the woodland cover is ancient, managed in the past as coppice with standards surrounded with native woodland flora such as bluebells and wood anemones in the Spring. Evidence of the area's industrial past is prominent, from the large iron-master houses to iron industry charcoal hearths, pits and hammer ponds found throughout the ancient woodlands.

The small scale and historical patterning of the landscape, interwoven woodland, wetland and open habitats, with many hedgerows and historic routeways supporting semi-natural vegetation, provide a flourishing, accessible landscape for wildlife. Exposed sandstone outcrops along the wooded gills provide nationally rare habitat and support an array of ferns, bryophytes and lichens. The Weald meets the sea at Hastings Cliffs which are a Special Area of Conservation (SAC) and an area of undeveloped coastline consisting of actively eroding soft cliffs of sands and clays. A small section (35 ha) of the Pevensey Levels Ramsar site also falls within the NCA. The numerous gill streams of the High Weald give rise to the headwaters and upper reaches of rivers which were previously important trade routes for timber, iron and wool out to the coastal ports around Walland Marsh.

Today the High Weald, and particularly Ashdown Forest, is internationally known as the home of the character Winnie-the-Pooh. Ashdown Forest is both a Special Protection Area (SPA) due to its populations of Dartford warbler and nightjar and an SAC as it is one of the largest single continuous blocks of lowland heath in England. The forest also inspired William Robinson who pioneered the English natural garden movement and writers such as Rudyard Kipling. The NCA is also home to 56 historic parks and gardens covering 4,599 ha. The High Weald provides an example of one of the best preserved medieval landscapes in north-west Europe and



Click map to enlarge; click again to reduce.

has a strong sense of history. This is enhanced by many features such as Battle Abbey, numerous churches and chapels and an abundance of locally distinctive traditional buildings. The eroding sea cliffs at Hastings provide one of the finest exposures of Lower Cretaceous, Wealden sediments in Britain, containing a range of internationally important fossil plant material and non-marine animal fossils.

The High Weald provides many services to communities living within the area's towns and villages and adjacent urban populations through the supply of drinking water, flood mitigation and carbon storage and a range of open-air recreational activities based around its distinctive character, from walking its ancient routeways to off-road cycling in Bedgebury Forest, water sports at Bewl Water and soft rock climbing at Harrison's Rocks. Future challenges include continuing high demands for housing in south-east England, and rural areas in particular, resulting in strong pressure for development within the NCA, and pressure to bring forward land for housing in and around larger villages, threatening the dispersed settlement character of the landscape and the sustainable development of smaller settlements.



Ashdown Forest consists of open rolling heathland and birch woodland on the sandstone ridge of the High Weald. The forest forms the literary landscape of the children's classic, 'Winnie the Pooh'.

Statements of Environmental Opportunity

SEO 1: Maintain and enhance the existing woodland and pasture components of the landscape, including the historic field pattern bounded by shaws, hedgerows and farm woods, to improve ecological function at a landscape scale for the benefit of biodiversity, soils and water, sense of place and climate regulation, safeguard ancient woodlands and encourage sustainably produced timber to support local markets and contribute to biomass production.

SEO 2: Maintain and restore the natural function of river catchments at a landscape scale, promoting benefits for water quality and water flow within all Wealden rivers, streams and flood plains by encouraging sustainable land management and best agricultural practices to maintain good soil quality, reduce soil erosion, increase biodiversity and enhance sense of place. Maintain and enhance the geodiversity and especially the exposed sandrock.

SEO 3: Maintain and enhance the distinctive dispersed settlement pattern, parkland and historic pattern and features of the routeways of the High Weald, encouraging the use of locally characteristic materials and Wealden practices to ensure that any development recognises and retains the distinctiveness, biodiversity, geodiversity and heritage assets present, reaffirm sense of place and enhance the ecological function of routeways to improve the connectivity of habitats and provide wildlife corridors.

SEO 4: Manage and enhance recreational opportunities, public understanding and enjoyment integrated with the conservation and enhancement of the natural and historic environment, a productive landscape and tranquillity, in accordance with the purpose of the High Weald AONB designation.



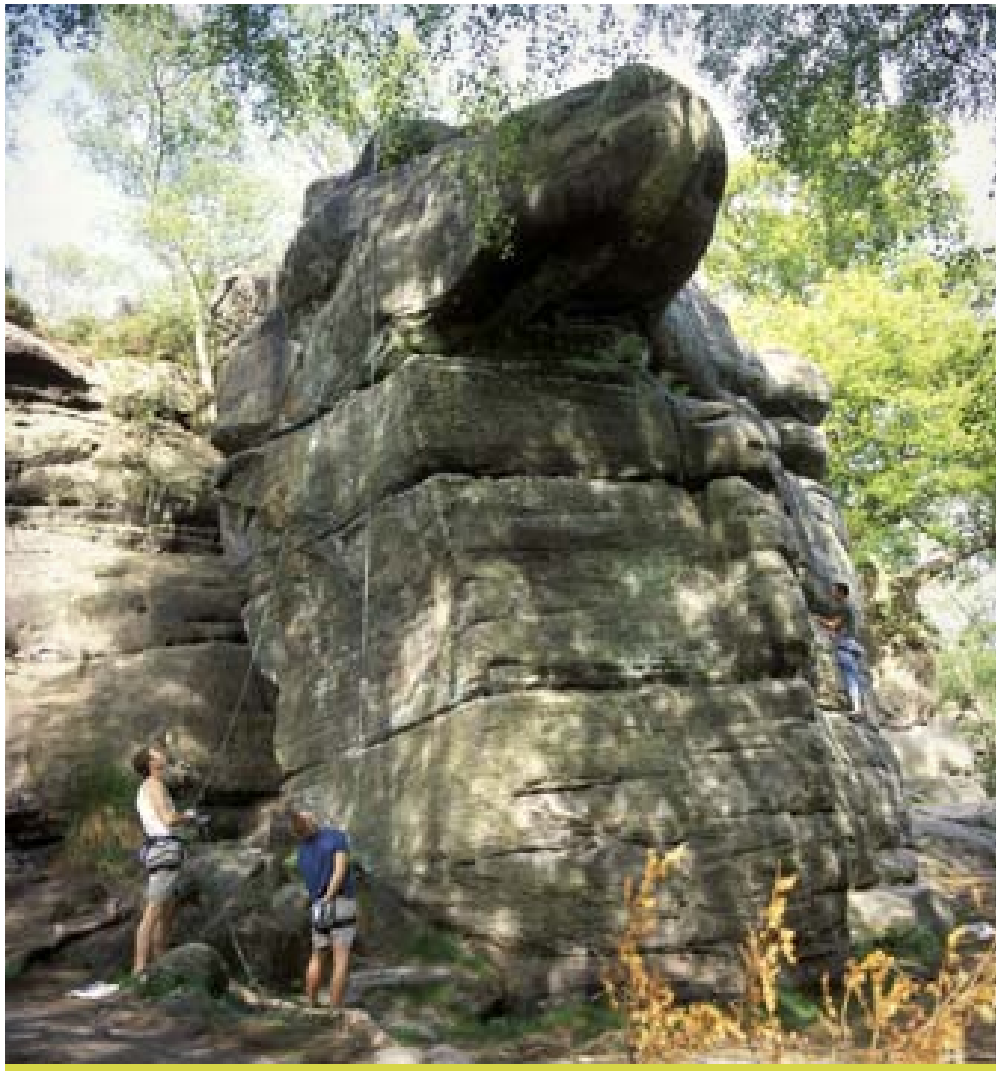
Small and medium-sized irregularly shaped fields enclosed by a network of hedgerows and wooded shaws, predominantly of medieval origin.

Description

Physical and functional links to other National Character Areas

The High and Low Weald National Character Areas (NCAs) together form an area known from Saxon times as the Weald whose landscape is the product of transhumance (the seasonal movement of people and animals between the settlements on the borders of the Weald and its interior) and a traditional system of integrated farming and forestry. Early in its history the Weald was linked economically and socially with its more habitable fringes where farming was easier. A dense network of droveways connects the Downs and the Weald, a visible legacy of the seasonal movement of people and animals into the woodland to take advantage of acorns and mast (fruit of forest trees). Today these routes can still be travelled as roads and public rights of way. The wooded nature of these linear routes together with the wooded gills provides a high degree of interconnectivity to ancient woodland habitats across the High and Low Weald.

From vantage points in the surrounding North and South Downs NCAs sweeping views extend across the densely wooded countryside of the Weald, an area of heavy soils and the natural habitat of the oak. Views from vantage points within the High Weald extend along the low-lying clay vale of the Low Weald NCA which largely wraps around the northern, western and southern edges of the High Weald NCA in a rough horseshoe shape. To the south-west pocket of the NCA, there are views towards the low-lying wetlands of the Pevensey Levels, and to the south-east corner there are long ranging views across the flat topography of the Romney Marshes NCA.



Rock climbing at Harrison's Rocks is managed carefully to protect the friable sandstone rocks from erosion.

The sandrock geology of the High Weald, notably on the ridge top settlements, is shared with only the northern part of the Isle of Wight NCA and parts of Boulonnais and Pays de Bray in France. It comprises fissured sandrock and ridges running east–west, deeply incised and intersected with numerous gill streams which give rise to the headwaters and upper reaches of rivers, with those to the east of the area also providing historical trade routes for timber, iron and wool out to the coastal ports on Romney Marsh.

In the High Weald, where the rivers Rother, Brede and Tillingham originate, the impermeable clay and silt layers of the Hastings Beds give rise to rapid run-off and quickly responding watercourses following heavy rainfall. Maintaining flows in the Rother catchment is important due to the dependency of the Walland Marsh on water transferred into the Royal Military Canal from the Rother, and hence the High Weald and Romney Marsh are inextricably linked in terms of water resources.

The catchments of the rivers Cuckmere, Ouse, Adur and Arun drain south through deep valleys in the eastern chalk ridge from the High Weald via the Low Weald NCA, and the later via the Wealden Greensand NCA, into the sea along the south coast, passing through major coastal settlements.

The High Weald provides many services to adjacent populations, not only through the supply of drinking water, flood mitigation and carbon storage but also through extensive opportunities for a range of open-air recreational activities based around its distinctive character. Activities including walking the ancient routeways, off-road cycling in Bedgebury Forest and soft rock climbing at Harrison's Rocks provide benefits to the various towns that straddle the border between the High and Low Wealds, namely Crawley, East Grinstead, Horsham, Haywards Heath and Uckfield.



The High Weald has a wealth of ancient woodland.

Key characteristics

- A faulted landform of clays, sand and soft sandstones with outcrops of fissured sandrock and ridges running east–west, deeply incised and intersected with numerous gill streams forming the headwaters of a number of the major rivers – the Rother, Brede, Ouse and Medway – which flow in broad valleys.
- High density of extraction pits, quarries and ponds, in part a consequence of diverse geology and highly variable soils over short distances.
- A dispersed settlement pattern of hamlets and scattered farmsteads and medieval ridgetop villages founded on trade and non-agricultural rural industries, with a dominance of timber- framed buildings with steep roofs often hipped or half-hipped, and an extremely high survival rate of farm buildings dating from the 17th century or earlier.
- Ancient routeways in the form of ridgetop roads and a dense system of radiating droveways, often narrow, deeply sunken and edged with trees and wild flower-rich verges and boundary banks. Church towers and spires on the ridges are an important local landmark. There is a dense network of small, narrow and winding lanes, often sunken and enclosed by high hedgerows or woodland strips. The area includes several large towns such as Tunbridge Wells, Crowborough, Battle and Heathfield and is closely bordered by others such as Crawley, East Grinstead, Hastings and Horsham.
- An intimate, hidden and small-scale landscape with glimpses of far-reaching views, giving a sense of remoteness and tranquillity yet concealing the highest density of timber-framed buildings anywhere in Europe amidst lanes and paths.
- Strong feeling of remoteness due to very rural, wooded character. A great extent of interconnected ancient woods, steep-sided gill woodlands, wooded heaths and shaws in generally small holdings with extensive archaeology and evidence of long-term management.
- Extensive broadleaved woodland cover with a very high proportion of ancient woodland with high forest, small woods and shaws, plus steep valleys with gill woodland.
- Small and medium-sized irregularly shaped fields enclosed by a network of hedgerows and wooded shaws, predominantly of medieval origin and managed historically as a mosaic of small agricultural holdings typically used for livestock grazing.
- A predominantly grassland agricultural landscape grazed mainly with sheep and some cattle.
- There is a strong influence of the Wealden iron industry which started in Roman times, until coke fuel replaced wood and charcoal. There are features such as a notably high number of small hammer ponds surviving today.
- Ashdown Forest, in contrast to the more intimate green woods and pastures elsewhere, is a high, rolling and open heathland lying on the sandstone ridges to the west of the area.
- An essentially medieval landscape reflected in the patterns of settlement, fields and woodland.
- High-quality vernacular architecture with distinct local variation using local materials. Horsham Slate is used on mainly timber structures and timber-framed barns are a particularly notable Wealden characteristic feature of the High Weald.

The High Weald today

The High Weald is an area of ancient countryside and one of the best surviving medieval landscapes in northern Europe. The High Weald Area of Outstanding Natural Beauty covers 78 per cent of the NCA, reflecting the outstanding natural and scenic beauty of the landscape.

From a distance the appearance of the High Weald is one of a densely wooded landscape, although closer inspection reveals a patchwork of irregularly shaped fields and woods forming both open and enclosed landscapes along rolling ridges and within valleys. Along the ridgetop roads briefly glimpsed extensive views open up, stretching away over rolling ridges, punctuated by church spires far into the horizon, providing a contrast to the intimacy of the lush green valleys. Everything in the High Weald landscape is of human scale and its rich detail is best explored on foot, cycle or horseback along the myriad interconnecting paths and tracks.

Along the English Channel coast the High Weald gives way to eroded sandstone and clay sea cliffs around Fairlight and disappears under the urban areas of Bexhill and Hastings to the south-east. The eastern end of the High Weald is characterised by a series of broad, often flat-bottomed river valleys opening out towards the coastal levels of Romney Marsh between Tenterden and Fairlight.

Sandstone exposed as outcrops or along the wooded gills provides a nationally rare habitat and supports a rich community of ferns, bryophytes and lichens. The moist microclimate in these sites is vulnerable to climate change. Potential physical damage comes from the popularity of rock climbing although this is mitigated by guidance and support from the climbing community.



Traditional farmsteads are often glimpsed through a densely-wooded landscape.

The drained landscape of the eastern High Weald river valleys is the result of a thousand years of modifications and exhibits few of the features associated with healthy natural river valleys. It is grazed by high numbers of sheep. Upriver the gill streams and upper reaches function better but remain vulnerable to pollution from agriculture and domestic waste treatment.

The ancient routeway network in the High Weald is substantially intact but the archaeology associated with it, such as multiple ditches and banks, is vulnerable to physical damage and the ancient, laid coppice stools edging many sunken routeways present a challenge for highway maintenance.

Flower-rich grassland persists along road verges and what was common land represents a substantial refuge for populations of rare species, but both are vulnerable to insensitive management.

Loosely arranged traditional farm buildings are extremely prominent in the NCA with their distinctive steep, clay-tiled hipped roofs. The numerous footpaths, as they have done for centuries, take walkers straight through the middle of historic farmsteads with the characteristic timber-framed and weatherboard buildings either side.



Ancient woodland gill with carpets of bluebells and wood anemones in Spring.

The distinctive pattern of dispersed historic settlement survives although the character of farmsteads has changed with the widespread conversion of traditional farm buildings to dwellings and the associated disappearance of agriculture and industry from farmsteads. The changing character of the farmsteads and surrounding landscape through gentrification ultimately also leads to a changing character of wildlife in terms of the assemblage of species present.

Typically, towns such as Tunbridge Wells and villages such as Goudhurst are sited on the ridges, with a dispersed pattern of historic farmsteads and hamlets covering the wooded valleys and field systems. Vernacular buildings have a strong local character influenced by a variation in locally available building materials, resulting in an abundance of weatherboard, brick, tile, and stone or rendered buildings. Local distinctiveness is marked by traditional vernacular building enhanced by stone church towers and spires located on ridges standing as major local landmarks. Within the forested ridges and ancient countryside, remnant hammer ponds constitute significant local features. These reservoirs have a distinctive branching or winding character as a result of their creation from small Wealden river valleys.

Woodland is extensive, covering 26 per cent of the area in a wide range of small wooded pits, linear gill woodland, farm woods and much larger wooded estates. Most of the woodland is ancient with carpets of bluebells and wood anemone in spring. Many of the woods were managed in the past as coppice with standard trees. The drier sandy soils were found suitable for pine plantations which persist within a patchwork of lowland heath and birch woodland Wild flower meadows are now rare but the medieval pattern of small fields with sinuous edges surrounded by thick hedgerows and shaws (the narrow remains of woodlands cleared to form fields) survives and many fields

retain some permanent or semi-improved grassland, which in turn supports common invertebrates and small mammals. Local initiatives have increased the area of restored and created species-rich grassland but the decline of grazing threatens their long-term management. Buzzards and sparrow hawks are sighted frequently, but the loss of field barns and conversion of farmstead buildings have led to a decline in once-common barn owls.

The mosaic of small hedged fields and sunken lanes, together with the wooded relief and comparative inaccessibility, provides a sense of remoteness which is rare within lowland English landscapes. Despite it being relatively tranquil today, indications of the area's busy industrial past are everywhere, from the abundant timber-framed traditional buildings to the wharfs and harbours along the now-straightened rivers, and the charcoal hearths, pits and ponds of the iron industry are still visible in almost every ancient woodland. The High Weald is well known internationally as the location of the Winnie-the-Pooh stories set in Ashdown Forest, but many other artists and writers have been inspired by the landscape, including Rudyard Kipling and the Cranbrook Colony of painters. Visitors come from across the country and from abroad to experience the Battle of Hastings site, visit beautiful historic houses and gardens, and experience a unique mix of local cultural celebrations ranging from Sussex bonfire processions to Kent apple fairs.



River Brede flood plain.

The landscape through time

The High Weald forms the central part of a unique geological landform of sedimentary rocks, the Wealden anticline, which underpins the Greensand, Chalk and Wealden Clay to the north, south and west which surround the sandstones and clays which underlie the forested ridges of the High Weald. The Purbeck Beds which lie along the Battle Ridge form the oldest sediments, laid down in shallow lagoons at the end of the Jurassic Period (142 million years ago). Iron-rich clays and sandstones followed as the landscape changed to one of flood plains and rivers. The area gradually sank below the sea and around 75 million years ago the great uplift began, followed by compression which folded and faulted the strata. Subsequent weathering has cut through the strata, exposing the layers as sandstone ridges and clay valleys. The array of soils arising has shaped the Weald's social and economic history.

The central sandstone core is strongly dissected by many major rivers, the headwaters of which have cut numerous steep-sided valleys or gills, several of which are heavily wooded. The High Weald is underlain by the Hastings Beds which comprise interbedded sands, soft sandstones and clays which give rise to the high, broken ground. Although not exceeding 240 m above ordnance datum, the High Weald is a hilly country of ridges and valleys. Numerous major ridges run mainly east to west, for example the Ashdown Forest Ridge and the Battle Ridge. North-west of Battle, Jurassic Purbeck Limestone contains gypsum beds which continue to be mined.

With the rise in temperatures at the beginning of the post-glacial period, arboreal species expanded their range across the continuous land link to Europe, with birch and Scots pine being followed by oak, elm, alder, ash and lime.



Outflow from a hammer pond originating from the iron-age industry.

By the Anglo-Saxon period the natural woodland which had developed in the warmer post-glacial period had already been modified by the hunter-gatherers of the Mesolithic people. Some woodland clearance was under way in the Neolithic Period with bronze-age barrows indicating active communities in Ashdown Forest and the Roman interest in iron smelting which is suggested led to woodland clearance, which regenerated after their departure. However, it was the medieval practice of transhumance, coupled with the exploitation of the valuable resources of the forest, which substantially transformed the largely uninhabited Weald into the settled landscape seen today.

Clearance of the Wealden forest on a significant scale did not begin until the 9th century, reaching a peak in the 13th and 14th centuries. From the mid-14th century until the First World War, the High Weald was relatively unchanged and even today many of the traditional field patterns and woodlands associated with the essentially medieval landscape still remain.

The High Weald lies within one of the largest tracts of woodland in early medieval England. Linked place names such as -den, -fold and -ing as; distinctive curved boundaries aligned in a similar direction to roads and tracks; and the relationship between manors and their Wealden outliers provide us with tantalising clues to the process of early settlement in the area. By the 15th century the High Weald's characteristic dispersed settlement pattern based on small-scale family holdings was well established. Few farmsteads worked the land from villages, which mostly developed later as service centres founded on trade and craft.

Medieval farmers shaped the present-day landscape of small fields and scattered farmsteads, with woodland and shaws left among them. Gill woodlands on steep valleys were left unfelled due to the difficulty in extracting timber gill woodland, which made them more ecologically significant as a result. The river valleys and the higher, drier ridgetops were important lines of communication on which early settlements were located. The medieval pattern of dispersed farms, small hamlets and villages is associated with the practice of cultivating small parcels of land known as 'assarting' – which gave rise to the pattern of ad hoc rural settlement. These early, isolated agricultural settlements later evolved into the characteristic High Weald ridgetop villages such as Mayfield, Wadhurst and Hawkhurst.

The Weald was the premier iron-producing district during the Roman occupation and again in the 16th century, based on the blast furnace to make castings of cannon and facilitated by the expertise of immigrant French workers. Interconnecting chains of leats, dams and hammer ponds were constructed to provide a sufficient head of water for the forges. These consisted of a stairway of ponds created by damming a gill and produced a head of water which worked the bellows for smelting and the forges' tilt hammers.

From the 15th to the 17th century, the High Weald was the foundry of England. Extensive woodland management in the form of coppicing (for charcoal for the forges) accompanied the industry and little clearance was undertaken. The wealth generated by the iron industry funded grand houses and parklands, many of which still stand today, such as Gravetye and Great Shoesmiths.

Heathland was historically more widespread in the High Weald than it is today. Cessation of grazing together with new conifer planting has led to the loss of open heathland, the only sizeable heathland remaining in the High Weald being Ashdown Forest, a former Royal Hunting Forest. Open heathland was at least partly the result of unsustainable management, effectively where poorer populations in society would make use of a range of heathland products. This included using the heathland turf as fuel due to more expensive woodland being used by the iron industry. Since then the heaths and woods have been relatively fluid on those acid soils.

The small size of Wealden holdings, the importance of crafts to supplement the income from agriculture on poor soils, and the high economic value of timber for boats and buildings and in the iron, glass and cloth industries explain the continuing survival of more woodland in the High Weald than anywhere else in the country. Woods were enclosed and managed as coppice with standards producing wood fuel and construction timber. Large, widely spaced trees in hedgerows and parklands produced the curved and crooked boughs required for ship-building.

In the 17th and 18th centuries hop growing expanded, as did the extent of chestnut coppice for hop poles. For 500 years the rivers of the eastern High Weald were an important link for trade and war between the wooded interior and the seaports of Winchelsea and Rye. Wooden barges were still moving timber and goods from the interior of the High Weald until the end of the 19th century when the last barge, Primrose, was built.

As early as 1825 William Cobbett commented on the artificial landscapes of the new gentry spreading out of London, and the arrival of the railways in the mid-19th century brought further building and the growth of country houses and estates. The railways also made a significant impact on agriculture, opening up the London market for hops, fruit and poultry.

Until the 1950s the Weald was one of the slowest-changing regions in Britain. For 700 years prior to this time agriculture, the field shapes and sizes and the pattern of surrounding woodland and hedgerows hardly changed. Since then farming and forestry, always difficult on the poor soils, have been pushed further to the economic margins by soaring land values with significant areas of land now devoid of productive agriculture. The majority of farmsteads are now residential hamlets and the decline in grazing animals and the industry associated with them is a major threat to the long-term management of species-rich grassland and heathland. Commercial coppicing has declined drastically although the Weald's woodmanship has been kept alive and may enjoy a period of revival with the increasing demand for wood fuel and renewable timber supplies.



View of traditional oast houses in Roberts Bridge.

Ecosystem services

The High Weald NCA provides a wide range of benefits to society. Each is derived from the attributes and processes (both natural and cultural features) within the area. These benefits are known collectively as 'ecosystem services'. The predominant services are summarised below. Further information on ecosystem services provided in the High Weald NCA is contained in the 'Analysis' section of this document.

Provisioning services (food, fibre and water supply)

- **Food provision:** This NCA produces some cereals, vegetables, soft fruit, lamb, game and some beef for local consumption. Despite growing interest in specialist and local breeds, numbers of livestock continue to decline.

- **Timber provision:** Despite the High Weald's long history of woodmanship, most timber is considered to be of low quality and only 15 per cent of the area of woodland is actively managed. . The area continues to provide oak for local construction, chestnut for fencing and other species such as ash and hornbeam for wood fuel.

- **Water availability:** The largest reservoir in south-east England, Bewl Water, is situated in this NCA, providing drinking water to Maidstone and the Medway Towns. Local villages and Hastings are supplied from Darwell Reservoir. Water is also supplied from aquifers in the Ashdown Beds.

Regulating services (water purification, air quality maintenance and climate regulation)

- **Climate regulation:** The high level of woodland cover and large extent of undisturbed soils under ancient woodlands and permanent grassland mean that the High Weald NCA has a significant role to play in carbon storage and sequestration and subsequently climate regulation, which could be further enhanced by using more timber than other materials in construction.

- **Regulating soil erosion:** More than two-thirds of the NCA is susceptible to some form of soil erosion. The main soil type (loamy/clayey soils with impeded drainage, covering 62 per cent of the NCA) is prone to compaction and capping and slaking, leading to increased risk of soil erosion by surface water run-off, especially on steeper slopes. The freely draining, slightly acid loamy soils (4 per cent of the area) are at enhanced risk of soil erosion on moderately or steeply sloping ground exacerbated where organic matter levels are low and where soils are compacted.



Cattle grazing on parkland.

- **Regulating soil quality:** Soils of the High Weald are highly variable over short distances, making it easy to locally overdose with inorganic fertiliser and leading to damage through poaching or using heavy machinery at inappropriate times.

- **Regulating water flow:** There is a risk of fluvial flooding along the lower reaches of the rivers, but important for the High Weald NCA is appropriate management of the numerous gill streams and upper and middle reaches of rivers to mitigate flooding further downstream in adjacent NCAs. There are further opportunities in the valley bottoms to look at pushing flood flows out of eroded water courses onto grassland and woodland to help slow flood flows.

Cultural services (inspiration, education and wellbeing)

- **Sense of place/inspiration:** The harmonious mosaic of small mixed farms and woodland that makes up the High Weald is now considered to be a quintessentially English landscape, yet for many years, until the advent of turnpikes, it was better know for the poor state of its roads and less advanced agriculture. Its mix of wilder elements, reminiscent of the former forest, surviving amid a beautiful, small-scale landscape shaped by man has inspired many people such as the architect Norman Shaw, the artist William Hunt, William Robinson, who pioneered the English natural garden style, and writers such as Rudyard Kipling and AA Milne.

- **Sense of history:** As one of the best preserved medieval landscapes in north-west Europe, the High Weald has a strong sense of history, and this is enhanced by the many individual features such as Battle Abbey, numerous churches and chapels, an abundance of traditional buildings and the remains of the former iron industry. The High Weald is extraordinarily well documented through old maps but these and the great extent of undisturbed ancient woodland which has preserved features from many different time periods still remain relatively unstudied.

- **Tranquillity:** Buildings, tracks and the remains of industrial activities concealed by the High Weald's extensive woodland cover and overgrown hedgerows make the experience of this landscape today feel relatively tranquil, especially due to the close proximity of London and the busy coastal towns.

- **Recreation:** There is a dense network of public rights of way supplemented by many areas of accessible natural greenspace, mostly provided by the Forestry Commission and bodies such as the National Trust and the Woodland Trust. Ashdown Forest provides an extensive area of open access at the heart of the High Weald. Outdoor sports are well catered for with off-road cycling at Bedgebury Forest, watersports at Bewl Water and soft rock climbing around Tunbridge Wells.

- **Biodiversity:** The human scale of the High Weald's landscape allows everyone to experience a variety of habitats and wildlife at first hand. The sheer quantity of semi-natural habitat such as ancient woodland is not adequately represented in the extent of Sites of Special Scientific Interest. Although the High Weald's cold soils may not support the biodiversity hotspots found on the nearby Downs, its ancient countryside and small, mixed farms continue to be home to resilient populations and a high biomass of typical lowland species.

- **Geodiversity:** The High Weald's sandrock outcrops are important geological features and support nationally rare ferns, mosses, liverworts and lichens, a living legacy from the climate most of Britain experienced around 4000 bc. The 6-kilometre section of eroding sea cliffs at Hastings provides one of the finest exposures of Lower Cretaceous, Wealden sediments in Britain. Their fossil plant material and non-marine animal fossils are some of the best examples of their type worldwide.

Statements of Environmental Opportunity

SEO1: Maintain and enhance the existing woodland and pasture components of the landscape, including the historic field pattern bounded by shaws, hedgerows and farm woods, to improve ecological function at a landscape scale for the benefit of biodiversity, soils and water, sense of place and climate regulation, safeguard ancient woodlands and encourage sustainably produced timber to support local markets and contribute to biomass production.

For example by:

- Encouraging the sustainable management of woodland by developing local markets for wood products and the skills to deliver these sustainably.
- Ensuring that any increased woodland cover is informed by the historical nature of the area, and promoting small-scale woodland creation to buffer existing woods, enhance landscape connectivity and manage flood flows.
- Increasing the viability of woodland habitats for wildlife by determining the area of appropriately managed woodland necessary to link and enhance isolated habitats and species to provide better connectivity between woodlands and encourage species' resilience to climate change.
- Promoting sustainable woodland management techniques (such as coppicing, pollarding and wood fuel production) to increase carbon substitutions and sequestration and the resilience of tree species to climate change and disease.
- Establishing a long-term ecological monitoring and research programme to assess the management status of woodlands and the impacts of diseases such as ash dieback, climate change and pressure from deer.
- Working with the High Weald Area of Outstanding Natural Beauty (AONB) to continue support for the restoration of planted ancient woodland sites.
- Adopting a suitable distance (approximately 15 m) as a minimum buffer around ancient woodlands to protect them from damaging development or land management operations.
- Promoting and raising awareness of the archaeology and historic assets of woodland.
- Working with the High Weald AONB to promote the use of local wood products such as chestnut fencing and timber in housing developments and the use of locally sourced wood fuel.
- Promoting the High Weald AONB design guidance to contribute to improved design quality within the area.
- Extending woodland around settlements and infrastructure developments to filter light pollution and reduce sound pollution and the visual impacts of further urbanisation.
- Maintaining and restoring links between woodland and other woodland habitats (such as hedgerows, traditional orchards and parkland) and species-rich grasslands and heathland outside the main woodland. This will create a robust network of wooded and open semi-natural habitats that will benefit the internationally important populations of bats, as well as other species.
- Maintaining good pastoral land use and agriculturally productive fields, and using field margins and well-managed hedgerows to maintain ecological links across arable patches, reducing water flow and resultant soil erosion and providing benefits to water quality.
- Encouraging and supporting the appropriate management of lowland meadows by owners, including through local owners' groups, providing benefits for the local community, biodiversity, the landscape and soil quality.

SEO1 continued

- Maintaining woodland cover – which provides integrated benefits for soil quality, water flow, soil erosion, water quality and management of steep gill woodland – for example through coppicing, to reduce land slippage and tree fall entering watercourses.
- Work with Forestry Commission to explore the potential for bring two thirds of woodland back into active management with the potential for increasing 25,000m3 per year of confer sawlogs, 10,000m³ per year of broadleaved sawlogs and a further 110,000m³ of lower quality wood which could be used as woodfuel with an energy value of around 230,000 MWh.

SEO 2: Maintain and restore the natural function of river catchments at a landscape scale, promoting benefits for water quality and water flow within all Wealden rivers, streams and flood plains by encouraging sustainable land management and best agricultural practices to maintain good soil quality, reduce soil erosion, increase biodiversity and enhance sense of place. Maintain and enhance the geodiversity and especially the exposed sandrock.

For example by:

- Working in partnership across sectors and National Character Area (NCA) boundaries to tackle the challenges associated with flood risk, pollution and low flows in order to safeguard surface water resources, especially those failing to meet Water Framework Directive objectives for good ecological status.
- Ensuring that sustainable water and land management strategies for Wealden river catchments are adhered to in accordance with the Water Framework Directive.
- Improving understanding of how to respond to and plan for climate change impacts and future consumer demands, and the interrelationships between supply and demand in adjoining NCAs, including the impacts of reduced water availability on important biodiversity sites.
- Buffering watercourses and reservoirs and restoring natural river geomorphology to improve water quality and reduce flood risk in settlements and valuable agricultural land by regulating water flow.
- Drawing on best practice principles such as those developed by the Forestry Commission and Environment Agency on the Pickering Brook in Yorkshire and established under catchment sensitive farming initiatives. As well as building on and supporting existing stakeholder groups to help to deliver a good water environment across the High Weald, benefiting biodiversity and local communities.
- Encouraging sustainable water use by homes and businesses supplied from catchments and promoting sustainable drainage systems.
- Controlling invasive non-native species, particularly along river banks, to reduce soil exposure and erosion.
- Encouraging integration of environmentally sensitive water policy objectives through land management practices such as agri-environment schemes and water resource and land use planning to ensure that an appropriate balance is maintained between water supply and demand.
- Exploring opportunities for landowners to work together across catchments to restore more natural river systems including wet woodland creation to deliver biodiversity, amenity, resource protection and flood control benefits.
- Working with the High Weald AONB to identify the potential of naturally functioning rivers and flood plains to regulate flooding, improve water quality, restore flood plain woodland and protect and enhance wildlife and fisheries.

SEO 3: Maintain and enhance the distinctive dispersed settlement pattern, parkland and historic pattern and features of the routeways of the High Weald, encouraging the use of locally characteristic materials and Wealden practices to ensure that any development recognises and retains the distinctiveness, biodiversity, geodiversity and heritage assets present, reaffirm sense of place and enhance the ecological function of routeways to improve the connectivity of habitats and provide wildlife corridors.

For example by:

- Ensuring that the repair, restoration or conversion of vernacular buildings is carried out with due regard to their historical interest, using local materials and appropriate styles and techniques to maintain local distinctiveness, construction techniques and traditions.
- Encouraging new developments to follow the vernacular of the area, using locally sourced materials and adhering to the principles of the High Weald AONB design guidance.
- Working with local communities to encourage the continuation of traditional land management practices and land uses that are necessary to retain the landscape character and the sense of place in this area.
- Improving sustainable public access through the rights of way network, provision of visitor facilities, and access to and interpretation of important sites for geodiversity, biodiversity and heritage in order to increase the understanding, enjoyment and appreciation of the landscape, and of the history of use that has shaped the area.
- Ensuring that the repair, restoration or conversion of buildings provides additional opportunities for bird boxes and bat roosts.
- Supporting community growing schemes, social forestry enterprises and partnerships with local land businesses to encourage local markets and seasonal outlets, supplying local food and wood fuel and promotion of rural skills training.
- Conserving the cultural heritage of local authors and artists by maintaining the traditions that create the distinctive landscape and local sense of place.
- Promoting information about the historical development of towns, villages, hamlets and farmsteads and their hinterlands including historical maps and accessible online information.
- Ensuring that the duty of regard is adhered to in relation to core components of natural beauty in the planning and development for towns and villages in and adjacent to the AONB.
- Exploring community initiatives to extend baseline mapping of the ancient routeway network to include public rights of ways, tracks and abandoned paths and to ensure community engagement in conserving and protecting ancient routeways.
- Undertaking archaeological research to better understand ancient routeways and their features in order to inform appropriate management.
- Working in partnership with highways authorities and communities to develop a design code for rural lanes promoting the use of characteristic boundaries and minimising the impacts of engineering and signage.
- Working in partnership with highways authorities and others to review and develop approaches to the management of roadside trees and coppice.
- Exploring initiatives that promote the contribution that ancient routeways make to a well-functioning ecological network.

SEO 4: Manage and enhance recreational opportunities, public understanding and enjoyment integrated with the conservation and enhancement of the natural and historic environment, a productive landscape and tranquillity, in accordance with the purpose of the High Weald AONB designation.

For example by:

- Maintaining and enhancing the extensive rights of way network and open access land throughout the area, improving links to the Sussex Border Path, High Weald Landscape Trail and Weald Way and creating additional links to relieve pressure on sensitive areas through a network of greenspace and linear access.
- Increasing understanding and enjoyment through education and interpretation materials especially where this helps to promote the sensitive features of designated sites, ensuring that access balances recreational enjoyment with the protection of biodiversity, geodiversity and historic features.
- Integrating the management of resources for informal open-air recreation to facilitate 'green' use by residents and visitors and meet the need of less able-bodied visitors.
- Identifying and promoting viewpoints that enable appreciation and experience of the tranquillity and outstanding natural beauty of the High Weald landscape by people of all abilities.
- Supporting community initiatives that promote small-scale land management improvements and identify and conserve local features.
- Promoting sustainable tourism initiatives that target a broad range of visitors and, where practical, reduce car dependency, accommodating high visitor numbers while conserving the landscape, its biodiversity and tranquillity.
- Exploring partnership initiatives to disseminate clear environmental education messages to encourage integration of recreation and public enjoyment opportunities with conservation of the natural and historic environment, using key sites and areas as examples of best practice.
- Promoting sustainable transport, green tourism and natural health initiatives such as themed High Weald AONB short breaks.
- Supporting projects that contribute to the conservation and management of special qualities and locally valued features such as tranquillity and dark skies and historic features such as abbeys and hop gardens.

Additional opportunity

1: Protect and maintain the sandstone outcrops and other geological features of the High Weald to promote greater understanding of geodiversity and the contributions that they make to the cultural heritage of the area.

For example by:

- Maintaining nationally important geological features to ensure no loss to sandstone outcrops and promoting further understanding and appreciation of sandrock exposures, reducing threats and/or inappropriate use and management.
- Maintaining views of geological features and exposures and, where appropriate, improving access to cuttings, quarries and other exposures of geological features to enable improved understanding and enjoyment of geodiversity and sense of history.
- Maintaining the nationally important sandrock exposures to conserve the fern, moss and liverwort communities that they support and to protect their value as some of the most significant sites of prehistoric archaeology in the AONB.
- Maintaining and enhancing all existing rock exposures and natural landforms that are important for understanding the origin and geological development of the High Weald.
- Helping to secure geological conservation as an integral part of the development process.
- Providing scrub control on exposed rock faces and outcrops of geological importance.



Sunken lane bank, with sandstone rocky outcrop at Brede.

Supporting document 1: Key facts and data

Total area: 174,885 ha

1. Landscape and nature conservation designations

The High Weald Area of Outstanding Natural Beauty covers an area of 135,863 ha, 78 per cent of the NCA.

Management Plans for the protected landscape can be found at:

- http://www.highweald.org/

Source: Natural England (2011)

1.1 Designated nature conservation sites

The NCA includes the following statutory nature conservation de1signations:

Tier	Designation	Name	Area (ha)	% of NCA
International	Ramsar	Pevensey Levels	35	<1
European	Special Protection Area (SPA)	Ashdown Forest SPA	3,198	2
	Special Area of Conser-vation (SAC)	Ashdown Forest SAC, Hasting Cliffs SAC	2,868	2
National	National Nature Re-serve (NNR)	n/a	0	0
National	Site of Special Scientific Interest (SSSI)	A total of 59 sites wholly or partly within the NCA	5,416	3

Source: Natural England (2011)

Please note: (i) Designated areas may overlap (ii) all figures are cut to Mean High Water Line, designations that span coastal areas/views below this line will not be included.

There are 268 local sites in the High Weald NCA covering 11,260 ha which is 6.5 per cent of the NCA.

Source: Natural England (2011)

- Details of individual Sites of Special Scientific Interest can be searched at: http://www.sssi.naturalengland.org.uk/Special/sssi/search.cfm
- Details of Local Nature Reserves (LNR) can be searched: http://www.lnr.naturalengland.org.uk/Special/lnr/lnr_search.asp
- Maps showing locations of Statutory sites can be found at: http://magic.defra.gov.uk/website/magic/ – select 'Rural Designations Statutory'.

1.1.1 Condition of designated sites

SSSI condition category	Area (ha)	% of SSSI land in category condition
Unfavourable declining	33	<1
Favourable	1,264	23
Unfavourable no change	28	<1
Unfavourable recovering	4,092	76

Source: Natural England (March 2011)

Details of SSSI condition can be searched at:
http://www.sssi.naturalengland.org.uk/Special/sssi/reportIndex.cfm

2. Landform, geology and soils

2.1 Elevation

The NCA reaches a maximum height of 241 m at Crowborough Beacon in East Sussex. The lowest point is sea level.

Source: Natural England (2010)

2.2 Landform and process

Although not exceeding 241 m the High Weald is a hilly country of ridges and valleys. Numerous major ridges run mainly east to west. These major ridges are deeply dissected by many tributaries of rivers which rise in the High Weald producing a network of small, steep-sided ridges and valleys (gills).

Source: High Weald Countryside Character Area description

2.3 Bedrock geology

The Weald is a geologically complex anticline, a folded dome where the oldest rocks are exposed at the centre as the top has been worn down by erosion. These oldest rocks, the Upper Jurassic Purbeck Beds, are only exposed at the surface in the Crowhurst area. Overlying these are Lower Cretaceous sands, soft sandstones and clays out to the edge of the High Weald.

Source: High Weald Natural Area Profile, High Weald Countryside Character Area description, British Geological Survey maps

2.4 Superficial deposits

Superficial deposits cover only a small percentage (7 per cent) of the NCA. Of these, the majority are clays, silt and sands which follow river courses.

Source:High Weald Natural Area Profile, High Weald Countryside Character Area description, British Geological Survey maps

2.5 Designated geological sites

Designation	Number of sites
Geological Site of Special Scientific Interest (SSSI)	17
Mixed interest SSSI	3

There are 38 Local Geological Sites within the NCA.

Source: Natural England (2011)

- Details of individual Sites of Special Scientific Interest can be searched at: http://www.sssi.naturalengland.org.uk/Special/sssi/search.cfm

2.6 Soils and Agricultural Land Classification

The area is dominated by both sandy and heavy clay soils. Slightly acid loamy and clayey soils with impeded drainage cover the majority of the NCA.

Source: High Weald Natural Area Profile

The main grades of agricultural land in the NCA are broken down as follows (as a proportion of total land area):

Agricultural Land Classification	Area (ha)	% of NCA
Grade 1	145	<1
Grade 2	1,293	<1
Grade 3	109,701	63
Grade 4	38,047	22
Grade 5	n/a	n/a
Non-agricultural	17,925	10
Urban	7,771	4

Source: Natural England (2010)

Maps showing locations of Statutory sites can be found at: http://magic.defra.gov.uk/website/magic/ – select 'Landscape' (shows ALC classification and 27 types of soils)

3. Key water bodies and catchments

3.1 Major rivers/canals

The following major rivers/canals (by length) have been identified in this NCA.

Name	Length (km)
Medway	30
Rother	28
Ouse	18
Tillingham	16
Dudwell	13
Brede	10
Cuckmere	7
Arun	6
Eden	5

Source: Natural England (2010)

Please note: other significant rivers (by volume) may also occur. These are not listed where the length within the NCA is short.

The High Weald is the source of a number of major rivers in the South East and has a dendritic drainage pattern with numerous small streams forming the headwaters of the main rivers. The area also contains several reservoirs including Weir Wood, Ardingly, Bewl Water and Darwell.

3.2 Water quality

The total area of Nitrate Vulnerable Zone is 100,205 ha or 57 per cent of the High Weald NCA.

Source: Natural England (2010)

3.3 Water Framework Directive

Maps are available from the Environment Agency showing current and projected future status of water bodies http://maps.environment-agency.gov.uk/wiyby/wiybyController?ep=maptopics&lang=_e

4. Trees and woodlands

4.1 Total woodland cover

The NCA contains 46,158 ha of woodland (26 per cent of the total area), of which 30,234 is ancient woodland.

Source: Natural England (2010), Forestry Commission (2011)

4.2 Distribution and size of woodland and trees in the landscape

The High Weald has the greatest amount of ancient woodland in any AONB, representing 7 per cent of all ancient woodland in England. The character of the woodland within the High Weald is dominated by numerous small woods and sinuous gills, interconnected by narrow shaws.

Source: The Cultural Heritage of Woodlands in the South East (2007)

4.3 Woodland types

A statistical breakdown of the area and type of woodland found across the NCA is detailed below.

Area and proportion of different woodland types in the NCA (over 2 ha)

Woodland type	Area (ha)	% of NCA
Broadleaved	36,573	21
Coniferous	7,685	4
Mixed	693	<1
Other	1,207	1

Source: Forestry Commission (2011)

Area and proportion of Ancient Woodland and Planted Ancient Woodland within the NCA.

Woodland type	Area (ha)	% of NCA
Ancient semi-natural woodland	20,663	12
Ancient re-planted woodland (PAWS)	8,719	5

Source: Natural England (2004)

5. Boundary features and patterns

5.1 Boundary features

Fields are bounded by shaws (narrow bands of ancient woodland), woodlands and hedgerows.

Source: High Weald Countryside Character Area description

5.2 Field patterns

Small, irregular, organic shaped fields. The landscape is essentially medieval with field patterns derived from post-Saxon/early-medieval cultivation of small parcels of land from more extensive areas of woodland; commonly referred to as 'assarting'. The resultant character of the area is one of fields within woodland, with associated dispersed and isolated settlement.

Source:High Weald Countryside Character Area description

6. Agriculture

The following data has been taken from the Agricultural Census linked to this NCA.

6.1 Farm type

The pastoral character of the area is supported by the figure for grazing livestock farms (697 in 2009) in comparison with cereals (210 in 2009) and horticulture (201 in 2009). Those classed as 'other' accounted for 763 holdings.

Source: Agricultural Census, Defra (2010)

6.2 Farm size

In 2009, farms between 5 and 20 ha represented 36 per cent of holdings, followed by 25 per cent between 20 and 50 ha, 14 per cent between 50 and 100 ha and 12 per cent for less than 5 ha in size. Those greater than 100 ha also accounted for 12 per cent.

Source: Agricultural Census, Defra (2010)

6.3 Farm ownership

2009: Total farm area = 105,626 ha; owned land = 78,719 ha
2000: Total farm area = 97,466 ha; owned land = 75,676 ha

Source: Agricultural Census, Defra (2010)

6.4 Land use

In 2009, 62 per cent of the total farmed area was grass and uncropped land (65,090 ha). Cereals covered 12 per cent of the farmed area (12,876 ha) - the second most common land use. Oil seeds accounted for 4 per cent of farmed area. Other arable crops also accounted for 4 per cent, with 2 per cent represented by fruit.

Source: Agricultural Census, Defra (2010)

6.5 Livestock numbers

In 2009 there were 43,200 cattle (55,100 in 2000), 180,700 sheep (251,000 in 2000) and 8,800 pigs (12,900 in 2000).

Source: Agricultural Census, Defra (2010)

6.6 Farm labour

Principal farmers make up 56 per cent of farm labour (2,623 in 2009). Numbers have remained relatively stable between 2000 and 2009 with the only significant change being a drop in the number of full-time workers (down 9 per cent to 630) and casual/gang workers (down 21 per cent to 601).

Source: Agricultural Census, Defra (2010)

Please note: (i) Some of the Census data is estimated by Defra so will not be accurate for every holding (ii) Data refers to Commercial Holdings only (iii) Data includes land outside of the NCA belonging to holdings whose centre point is within the NCA listed.

7. Key habitats and species

7.1 Habitat distribution/coverage

Woodlands including gill woodlands, shaws and hedgerows are found across the High Weald with ancient woodland a distinctive feature (see woodland section). Pockets of unimproved and semi-improved grassland (both acid and neutral) are notable. There are significant areas of heathland including Ashdown Forest, one of the most extensive areas of heathland in south-east England. Wetland habitats associated with the river valleys are also important. The High Weald has more than 10,000 ponds concentrated on the clay providing valuable habitats for a range of wildlife. Parklands contain relict ancient habitats such as veteran trees. The sand rock exposures are an important habitat for bryophyte assemblages.

Source: High Weald AONB Management Plan 2004, High Weald Natural Area Profile

7.2 Priority habitats

The Government's new strategy for biodiversity in England, Biodiversity 2020, replaces the previous Biodiversity Action Plan (BAP) led approach. Priority habitats and species are identified in Biodiversity 2020, but references to BAP priority habitats and species, and previous national targets have been removed. Biodiversity Action Plans remain a useful source of guidance and information. More information about Biodiversity 2020 can be found at; www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/englandsbiodiversitystrategy2011.aspx.

The NCA contains the following areas of mapped priority habitats (as mapped by National Inventories). Footnotes denote local/expert interpretation. This will be used to inform future national inventory updates.

Priority habitat	Area (ha)	% of NCA
Broadleaved mixed and yew woodland (broad habitat)	26,538	15
Lowland heath	1,767 [1]	1
Coastal and flood plain grazing marsh	565	<1
Lowland meadows	233 [2]	<1
Maritime cliff and slope	167	<1
Lowland dry acid grassland	142 [2]	<1
Fens	51	<1
Reedbeds	18	<1
Purple moor-grass and rush pasture	1	<1
Coastal vegetated shingle	<1	<1

Source: Natural England (2011)

Footnotes: (1) High Weald AONB Management Plan 2nd edition (2009) states 1,931 ha of heathland within the AONB boundary. (2) High Weald AONB Management Plan 2nd edition (2009) states 655 ha of species-rich unimproved lowland meadows and dry acidic grassland within the AONB boundary

- Maps showing locations of Priority Habitats are available at: http://magic.defra.gov.uk/website/magic/ – select 'Habitat Inventories'

7.3 Key species and assemblages of species

- Maps showing locations of Priority Habitats are available at: http://magic.defra.gov.uk/website/magic/ – select 'Habitat Inventories'
- Maps showing locations of S41 species are available at: http://data.nbn.org.uk/

8. Settlement and development patterns

8.1 Settlement pattern

The area is characterised by dispersed historic settlements of farmsteads and hamlets. The relatively few nucleated villages and small towns are usually sited alongside the main routes through the Weald. Many of these settlements developed as trading centres and associated with non-rural industries and in several examples it is clear that the market was the original feature, later accompanied by a church.

Source: High Weald Countryside Character Area description; Countryside Quality Counts (2003)

8.2 Main settlements

The main settlements within the High Weald are; Hastings, Tunbridge Wells, Crawley, Bexhill, and Haywards Heath.

Source: High Weald Countryside Character Area description; Countryside Quality Counts (2003)

8.3 Local vernacular and building materials

Distinctive red tile, brick, local sandstone and timber building materials, often including hung tiles and white weatherboarding, are characteristic of the historic settlements, farms and cottages. Oast houses and timber framed barns are a particularly notable and characteristic element of the High Weald landscape.

Source: High Weald Countryside Character Area description; Countryside Quality Counts (2003)

9. Key historic sites and features

9.1 Origin of historic features

The High Weald has been occupied since at least the Mesolithic period but few pre-Roman sites exist. Iron was the major industry, first developed in the Iron Age and Roman periods but predominantly in the 15th to 17th centuries when the Weald was the foundry of England and the influence dominates the present landscape in the form of hammer ponds, furnace sites and evidence of charcoal-burning. The wealth generated by this industry also led to the abundance of large estates, grand houses and parklands. The NCA includes the site of the Battle of Hastings and substantial evidence of the Norman development of the area in the form of castles, churches and medieval buildings. Agriculture has also been important, including hop production with oast houses notable and a large number of pre-1750 farm buildings survive.

The High Weald is characterised by ancient routeways (now roads and rights of way) in the form of ridge-top roads and a dense system of radiating droveways. Along with the prehistoric ridge-top ways, the droves were one of the most distinctive characteristics of the High Weald in the 14th century and remain so.

Source: Draft Historic Profile, Countryside Quality Counts, High Weald Countryside Character Area description; Making of the High Weald, Roland B Harris (2003)

9.2 Designated historic assets

This NCA has the following historic designations:

- 56 Registered Parks and Garden covering 4,599 ha
- 1 Registered Battlefield covering 77 ha
- 91 Scheduled Monuments
- 7,370 Listed Buildings

Source: Natural England (2010)

More information is available at the following address:

- http://www.english-heritage.org.uk/caring/heritage-at-risk/
- http://www.english-heritage.org.uk/professional/protection/process/national-heritage-list-for-england/

10. Recreation and access

10.1 Public access

- Six per cent of the NCA or 10,926 ha, is classified as being publically accessible.
- There are 3,043 km of public rights of way at a density of 1.7 km per km2.
- There are no National Trails within the High Weald NCA.

Sources: Natural England (2010)

The table below shows the breakdown of land which is publically accessible in perpetuity:

Access designation	Area (ha)	% of NCA
National Trust (Accessible all year)	154	<1
Common Land	2,790	2
Country Parks	412	<1
CROW Access Land (Section 4 and 16)	4,373	3
CROW Section 15	2,734	2
Village Greens	255	<1
Doorstep Greens	1	<1
Forestry Commission Walkers Welcome Grants	3,599	2
Local Nature Reserves (LNR)	750	<1
Millennium Greens	9	<1
Accessible National Nature Reserves (NNR)	n/a	n/a
Agri-environment Scheme Access	132	<1
Woods for People	7,043	4

Sources: Natural England (2011)

Please note: Common Land refers to land included in the 1965 commons register; CROW = Countryside and Rights of Way Act 2000; OC and RCL = Open Country and Registered Common Land.

11. Experiential qualities

11.1 Tranquillity

Based on the CPRE map of tranquillity (2006) the areas of greatest tranquillity are away from the main transport corridors and major settlements. The pastoral, heavily wooded and intimate character of the landscape has a strong sense of tranquillity.

A breakdown of tranquillity values for this NCA is detailed in the table below:

Tranquillity	Tranquillity Score
Highest value within NCA	42
Lowest value within NCA	-108
Mean value within NCA	-8

Sources: CPRE (2006)

More information is available at the following address:
http://www.cpre.org.uk/what-we-do/countryside/tranquil-places/in-depth/item/1688-how-we-mapped-tranquillity

11.2 Intrusion

The 2007 Intrusion Map (CPRE) shows the extent to which rural landscapes are 'intruded on' from urban development, noise (primarily traffic noise), and other sources of visual and auditory intrusion. This shows that there are patches of undisturbed land throughout the NCA. Disturbance is localised and centred on main roads, notably the A21, A26 and M23, and urban centres, particularly Hastings in the east and the Crawley/Gatwick area in the west. A breakdown of intrusion values for this NCA is detailed in the table over.

Intrusion category	1960s (%)	1990s (%)	2007 (%)	Percentage change (1960s-2007)
Disturbed	20	42	50	30
Undisturbed	76	54	44	-32
Urban	4	4	6	2

Sources: CPRE (2007)

Notable trends from the 1960s to 2007 are that the amount of land being described as disturbed has more than doubled with less than a half of the NCA being undisturbed in 2007 compared to more than three quarters in 1960. The amount of urban land has increased but less so than in some other areas and remains a small proportion, just less than 6 per cent of the NCA.

More information is available at the following address:
http://www.cpre.org.uk/resources/countryside/tranquil-places

12 Data sources

- British Geological Survey (2006)
- Natural Area Profiles, Natural England (published by English Nature 1993-1998)
- Countryside Character Descriptions, Natural England (regional volumes published by Countryside Commission/Countryside Agency 1998/1999)
- Joint Character Area GIS boundaries, Natural England (data created 2001)
- National Parks and AONBs GIS boundaries, Natural England (2006)
- Heritage Coast Boundaries, Natural England (2006)
- Agricultural Census June Survey, Defra (2000,2009)
- National Inventory of Woodland & Trees, Forestry Commission (2003)
- Countryside Quality Counts Draft Historic Profiles, English Heritage (2004)*
- Ancient Woodland Inventory, Natural England (2003)
- Priority Habitats GIS data, Natural England (March 2011)
- Special Areas of Conservation data, Natural England (data accessed in March 2011)
- Special Protection Areas data, Natural England (data accessed in March 2011)
- Ramsar sites data, Natural England (data accessed in March 2011)
- Sites of Special Scientific Interest, Natural England (data accessed in March 2011)
- Detailed River Network, Environment Agency (2008)
- Source protection zones, Environment Agency (2005)
- Registered Common Land GIS data, Natural England (2004)
- Open Country GIS data, Natural England (2004)
- Public Rights of Way Density, Defra (2011)
- National Trails, Natural England (2006)
- National Tranquillity Mapping data, CPRE (2007)
- Intrusion map data, CPRE (2007)
- Registered Battlefields, English Heritage (2005)
- Record of Scheduled Monuments, English Heritage (2006)
- Registered Parks and Gardens, English Heritage (2006)
- World Heritage Sites, English Heritage (2006)
- Incorporates Historic Landscape Characterisation and work for preliminary Historic Farmstead Character Statements (English Heritage/Countryside Agency 2006)Detailed River Network, Environment Agency (2008)

Please note all figures contained within the report have been rounded to the nearest unit. For this reason proportion figures will not (in all) cases add up to 100%. The convention <1 has been used to denote values less than a whole unit.

Supporting document 2: Landscape change

Recent changes and trends

Trees and woodlands

- Countryside Quality Counts data reveals that in 1999 about 11 per cent of the established eligible National Inventory of Woodland and Trees woodland stock was covered by a Woodland Grant Scheme management agreement.
- In 2003 the proportion of established, eligible National Inventory of Woodland and Trees woodland stock was about 18 per cent. About 65 per cent of the woodland cover is on an ancient woodland site. The proportion of these sites covered by Woodland Grant Scheme agreements has changed since 1999 from 12 per cent to 23 per cent.
- Loss of traditional orchards and hop gardens and associated wind-break features has occurred in all areas except Ashdown Forest.
- The threat of browsing damage to young trees from increasing deer numbers and bark stripping by squirrels remains a disincentive to active coppice management and the growing of higher quality hardwood timber trees.
- Woodfuel, both wood chip and log wood, has grown in popularity but a shift from small teams with hand held machinery to larger scale forestry poses a threat to woodland archaeology and soil health. There is a need to use appropriate machinery which is suited to the character and constraints of the landscape.
- Some ancient woodland continues to suffer incremental damage from trampling and disturbance by livestock, machinery and recreational use.
- There is pressure on ancient woodland in all areas from lack of management and clay extraction.

Boundary features

- Towards the end of the 20th century there was a decline in the extent and condition of boundary features. Countryside Stewardship agreements have bought about a positive change in hedgerow management including fencing of hedgerows and hedgebank management and general restoration. 748, 904 km of hedgerow, 51, 413 km of ditch, and 113 km of earth bank are now managed under Environmental Stewardship.
- Ongoing pressure for larger fields, highway improvements and lack of recognition of the historical depth and extensive archaeology associated with the intricate mosaic of High Weald boundary features continues to pose a threat to their character and condition.

Agriculture

- Generally the agricultural profile of the area has remained stable and predominantly pastoral with 77 per cent of the area under grass or un-cropped land. The number of dairy farms has decreased, but yields from the area probably remain consistent.
- There has been a slight increase in 'niche' agricultural activity; specialist pig and poultry rearing, small holdings and horticulture.

- A decline in grass-based livestock production as the basis of management of the High Weald's fieldscape resulting in numbers of cattle and sheep dropping by nearly a third in 10 years from already low levels in 2000.

Settlement and development

- Countryside Quality Counts data revealed in 1999 that there had been a decline in use of vernacular building materials in new developments and introduction of urban features such as lighting and alarms. The northern (Kentish) High Weald has been particularly affected. This trend would appear to be continuing.

- An increase in road traffic on the characteristically small roads, winding lanes and historic routeways has been an issue, leading to conflicts between motorised traffic, pedestrians, horse-riders and cyclists and insensitive highway 'improvements'.

- Development around built-up areas throughout south-east England has impacted on rural character. New land uses such as pony paddocks and associated domestic features such as tennis courts, street lighting and golf courses have impacted on character, particularly in Ashdown Forest and the northern (Kentish) High Weald, although the area does have lower number of housing units built per 1000 households than protected landscapes generally between 1985 and 2004.[4]

- A high rate of barn conversion resulting in more than half of listed historic farm property in residential use (2007) and only 40 per cent in agriculture or agriculture related uses. Agricultural activity associated with historic farmsteads is concentrated in the south and east of the NCA.



Settlements were traditionally sited on the drier ridge tops while the slopes and valley bottoms form a mosaic of pasture, arable and woodland linked by hedgerows and shaws.

Semi-natural habitat

- A landscape with existing high levels of ecological connectivity and porosity for many species associated with lowland pastoral landscapes but a decline in agriculture and woodland management together with management for amenity is reducing habitat quality.

[4] http://webarchive.nationalarchives.gov.uk/20101219012433/http://countryside-quality-counts.org.uk/jca/Consultation/Theme.aspx?CqcJcaID=119&CqcThemeID=5

- Most Countryside Stewardship agreements in 2003 were for lowland pastures on neutral/acid soils (3,431 ha) and regeneration of grassland/semi-natural vegetation (2,360 ha).

- Uptake of Environmental Stewardship is less than the national average with less than half of the agricultural area under Stewardship.

- Species-rich grassland creation and restoration using locally sourced seed has been prominent in the NCA but unimproved meadow sites remain at risk from neglect, tree planting or intensification and increase in pony paddocks.

- The uneconomic nature of heathland management remains a threat especially to smaller heathland fragments.

- There has been a loss of heathland due to cessation of grazing and subsequent scrub invasion notably in Ashdown Forest and St. Leonard's Forest.

- The over-shading effect of rhododendron combined with its dense, acidic leaf litter and other plants continues to pose a threat to ancient woodland particularly in gill woodlands which retain rich assemblages of vulnerable 'Atlantic' bryophyte species (mosses and liverworts), ferns and lichens. Rhododendron is also vulnerable to Phytophthora ramorum on which very high numbers of spores develop, which can then spread to trees and heathland plants.

- Increased shading in woodland resulting from the decline of coppice management continues to restrict the viability and spread of plants and butterflies adapted to sunny rides and temporary clearings.

- The impact of nitrogen deposition from traffic in the vicinity has particularly increasingly impacted on the Ashdown Forest SAC.

Historic features

- The area has a high rate of barn conversions on a unit area basis. About 44 per cent of listed historic farm buildings remain unconverted. About 92 per cent are intact structurally. These data suggest that important aspects of the historic landscape remain neglected in 2010 and that the redundancy of farmsteads has led to the deterioration of historic farm buildings or pressure for their conversion, often to residential use.[5]

- Parklands are an important historic element of this landscape. In 1918 about 8 per cent of the NCA was historic parkland. By 1995 it is estimated that 44 per cent had been lost. About 23 per cent of the remaining parkland is covered by a Historic Parkland Grant, and about 15 per cent is included within an agri-environment scheme.

- In 2003 Countryside Stewardship agreements included mechanical bracken control – area payment (144 ha) and scrub management under 25 per cent cover (130 ha). These were developed to assist plantations and unchecked bracken and scrub growth which were an issue on some prehistoric earthworks and other archaeological sites.

- Further survey and recording is needed to assess the extent and condition of features such as pre-1750 timber-framed farm buildings, woodland archaeology, ancient routeways and medieval field systems.

[5] Countryside Quality Counts data

- Four Scheduled Monuments have been identified on the Heritage at Risk register along with one registered park and garden.

Coast and rivers

- The biological water quality in 1995 was predominantly excellent and it has been maintained. The chemical water quality in 1995 was predominantly very good and it has been maintained.

- In 2003 Countryside Stewardship agreements included managing reedbed (18 ha), restoration/conservation of fen/reedbed/carr (7 ha) to assist in managing the pressures on the riparian landscapes which line the numerous small streams and rivers. This was particularly significant in the areas in northern areas of the High Weald around Kent, in relation to the loss of riparian trees, damp pastures and flood meadows.

Minerals

- Continued small-scale demand for traditional local stone, clay and brick production for local use.

Drivers of change

Climate change

Climate change is likely to result in:

- Increasingly unpredictable weather patterns with hotter drier summers, more intense rainfall and longer dry periods resulting in the need for agriculture and forestry industries to adapt to grow different crops and develop more flexible and responsive land management practices.

- Increasing incidences of pathogens such as fungi and insect-borne disease disrupting timber crops and changing the species mix of woodlands.

- Higher temperatures and prolonged drought, putting heathland and wooded heath areas under stress and increasing the risk of wildfires.

- The need to adapt to a reduction in water available to domestic, business and agricultural users.

- Increased incidence of flooding and pressure for restoring the natural function of river valleys which may conflict with the conservation of heritage assets, some existing biodiversity features and food production. Potential degradation and loss of oceanic communities of ferns, mosses, liverworts and lichens found on Sandrock and dependant on a mild and moist microclimate.

Other key drivers

- Continuing high demand for housing in south-east England and rural areas in particular resulting in strong pressure for development on the edge of or adjacent to the High Weald AONB boundary and pressure to bring forward land for housing in and around larger villages threatening the dispersed settlement character of the landscape and the sustainable development of smaller settlements.

- The opportunity for green technology and skills development to maximise use of the High Weald's extensive timber resource in construction, locking up carbon, supporting the local economy and improving design quality.

- The opportunity to harness enthusiasm for community growing and forest gardening (outside of ancient woodland) to meet food security concerns.

- The need for grassland and woodland management to be both profitable and sustainable and to support a broad range of new land-based and tourism businesses.
- Development pressures resulting from planning for an aging population, changes to working practices, improved communications technology and energy supply.
- Opportunities for landowners to work together across catchments to restore more natural river systems and their associated habitats, including wet woodland creation, to deliver biodiversity, amenity, resource protection and flood control benefits.
- Climate change adaptation, increased demand for locally produced food and niche markets, market economies and increased visitor activity may provide opportunities for further farm business diversification.
- Recreational use and access, both day visits and longer term tourism, are both increasing and changing in nature with emphasis on activity-based recreation, such as off-road cycling.



Early purple orchid on a roadside bank.

Supporting document 3: Analysis supporting Statements of Environmental Opportunity

The following analysis section focuses on a selection of the key provisioning, regulating and cultural ecosystem goods and services for this NCA. These are underpinned by supporting services such as photosynthesis, nutrient cycling, soil formation and evapo-transpiration. Supporting services perform an essential role in ensuring the availability of all ecosystem services.

Biodiversity and geodiversity are crucial in supporting the full range of ecosystem services provided by this landscape. Wildlife and geologically-rich landscapes are also of cultural value and are included in this section of the analysis. This analysis shows the projected impact of Statements of Environmental Opportunity on the value of nominated ecosystem services within this landscape.



Mayfield High Street.

Statement of Environmental Opportunity	Ecosystem service: Food provision	Timber provision	Water availability	Genetic diversity	Biomass provision	Climate regulation	Regulating water quality	Regulating water flow	Regulating soil quality	Regulating soil erosion	Pollination	Pest regulation	Regulating coastal erosion	Sense of place / Inspiration	Sense of history	Tranquillity	Recreation	Biodiversity	Geodiversity
SEO 1: Maintain and enhance the existing woodland and pasture components of the landscape, including the historic field pattern bounded by shaws, hedgerows and farm woods, to improve ecological function at a landscape scale for the benefit of biodiversity, soils and water, sense of place and climate regulation, safeguard ancient woodlands and encourage sustainably produced timber to support local markets and contribute to biomass production.	↔ **	↑ **	↔ **	↔ **	↑ ***	↑ ***	↔ **	↔ **	↗ **	↗ **	↗ **	↔ **	↔ ***	↑ **	↗ **	↗ **	↗ **	↑ ***	↔ **
SEO 2: Maintain and restore the natural function of river catchments at a landscape scale, promoting benefits for water quality and water flow within all Wealden rivers, streams and flood plains by encouraging sustainable land management and best agricultural practices to maintain good soil quality, reduce soil erosion, increase biodiversity and enhance sense of place. Maintain and enhance the geodiversity and especially the exposed sandrock.	↔ **	↔ ***	↑ ***	↔ ***	↔ **	↗ **	↑ ***	↑ ***	↗ ***	↗ **	↔ **	↗ **	↗ ***	↑ **	↔ **	↔ ***	↑ **	↑ ***	↔ **
SEO 3: Maintain and enhance the distinctive dispersed settlement pattern, parkland and historic pattern and features of the routeways of the High Weald, encouraging the use of locally characteristic materials and Wealden practices to ensure that any development recognises and retains the distinctiveness, biodiversity, geodiversity and heritage assets present, reaffirm sense of place and enhance the ecological function of routeways to improve the connectivity of habitats and provide wildlife corridors.	↗ **	↑ **	↔ **	↔ ***	↑ **	↗ **	↔ **	↔ **	↔ ***	↔ ***	↔ **	↔ **	↔ ***	↑ **	↑ **	↗ **	↗ **	↑ ***	↑ ***
SEO 4: Manage and enhance recreational opportunities, public understanding and enjoyment integrated with the conservation and enhancement of the natural and historic environment, a productive landscape and tranquillity, in accordance with the purpose of the High Weald AONB designation.	↗ **	↔ **	↗ **	↔ **	↗ **	↗ **	↔ **	↔ **	↗ **	↗ **	↔ **	↔ **	↔ **	↑ ***	↑ ***	↑ ***	↑ ***	↗ **	↗ **

Note: Arrows shown in the table above indicate anticipated impact on service delivery ↑=Increase ↗ =Slight Increase ↔=No change ↘ =Slight Decrease ↓=Decrease.
Asterisks denote confidence in projection (*low **medium***high) ○=symbol denotes where insufficient information on the likely impact is available .

Dark plum =National Importance; Mid plum =Regional Importance; Light plum =Local Importance

Landscape attributes

Landscape attribute	Justification for selection
Heathland, notably Ashdown Forest Special Area of Conservation (SAC) and Special Protection Area (SPA).	■ An extensive mosaic of elevated heathland and woodland with far reaching views. Used for hunting in the middle ages it is a formally registered common. ■ Ashdown Forest is considered one of the most important and extensive areas of heathland in south-east England and supports several uncommon plants, has rich invertebrate fauna and important populations of heath and woodland birds. It is internationally important and designated as an SAC for wet and dry heath and an SPA for breeding populations of Dartford warbler and nightjar. ■ Areas of heathland are also found in St Leonard's Forest and smaller patches elsewhere although much has been lost, increasing the significance of these remaining blocks. ■ Ashdown Forest is the largest free public access space in south-east England, lying at the heart of the High Weald AONB and is a particularly popular and important recreational asset. ■ Ashdown Forest is characterised by the presence of plants such as heather, dwarf gorses and cross-leaved heath, some areas of scattered trees and scrub, areas of bare ground, gorse, wet heaths, bogs and open water.
Coastline of geological, biodiversity and recreational value.	■ Hastings Cliffs – an area of underdeveloped coastline consisting of actively eroding soft cliffs of sands and clays and associated varied habitats and a Special Area of Conservation (SAC) for vegetated sea cliffs of the Atlantic and Baltic coasts. ■ The cliffs are important for their bryophyte interest and maritime species and are geologically important, representing the most southerly exposures of the Lower Hastings Beds. ■ The cliffs are golden and tower over 100 m above sea level. ■ Hastings and Bexhill are seaside resort towns on the south coast offering recreational opportunities.
High density of extraction pits, quarries and ponds.	■ The High Weald has more than 10,000 ponds concentrated on the clay, with some on silty sandstone[6] including 'hammer ponds' originating from the Wealden iron industry. ■ Iron stone exploitation, quarrying of stone from the Hastings Beds for building and extraction of sand for brick making has left a number of quarries and extraction pits.

[6] *High Weald AONB Management Plan, 2014–2019*, High Weald AONB Unit

Landscape attribute	Justification for selection
Dispersed historic settlement pattern, farmsteads and hamlets with late medieval villages. Strong vernacular architecture characterises the NCA.	■ Dominance of traditional timber framed buildings with steep roofs often hipped or half-hipped and an extraordinarily high survival rate of farm buildings dating from 17th century or earlier. ■ Timber, tile, brick, Kentish ragstone and sandstone are traditional building materials. ■ The High Weald has one of the highest concentrations of surviving early farmsteads anywhere in Europe.[7] ■ The rich and varied colours of locally derived building materials reflect the diversity of geology underpinning the area and add significant interest to the landscape generally.
Ancient routeways in the form of ridge-top roads and a dense system of radiating droveways often narrow, deeply sunken and edged with trees and wildflower-rich verges and boundary banks.	■ Ancient routeways form part of the habitat mosaic of the High Weald, many still used today, the routes are features which have been used for centuries and form an important part of the landscape, ecology and history of the High Weald. ■ The routeways provide an extensive network of roads and paths allowing access to some of the most intimate and tranquil parts of the area.
Small irregularly shaped fields bounded by hedgerows, shaws and woodlands.	■ These form part of the landscape and habitat mosaic and an essential component of what is a rare, surviving essentially medieval landscape. ■ Hedgerows and shaws are important to landscape character and ecological connectivity, often giving the area a feel of a small-scale landscape and a 'patchwork quilt' effect. ■ Ecologically they represent a reservoir of native trees, shrubs and wildflowers and are important sources of food and shelter for invertebrates, small mammals and birds. Hedgerows and shaws are also important for linking fragmented areas of semi-natural habitat within the agricultural landscape. ■ Many hedgerows run along historic boundaries. ■ The soft, sinuous forms of the field boundaries add texture and variety to the landscape and make a significant contribution to the overall arboreal character of the landscape.

[7]High Weald AONB, www.highweald.org/look-after/property-management/historic-farmsteads.html

Landscape attribute	Justification for selection
Grasslands including species-rich unimproved meadows and dry acidic grassland.	■ Unimproved meadows are an important part of the heritage of the NCA. ■ Within the High Weald AONB boundary there are 655 ha of species-rich unimproved lowland meadows and dry acidic grassland. ■ Remaining meadows are often small, fragmented and hard to access and as a result securing appropriate management can be difficult. ■ Many unimproved grasslands include a diverse range of plant and animal species including rare indicator species such as dyers greenweed, pepper saxifrage and green winged orchid. ■ Unimproved grasslands have undergone significant decline in the 20th century and protection and maintenance of remaining habitat is a priority.
Reservoirs.	■ Four reservoirs within the NCA; Bewl Water, Darwell, Ardingley and Weir Wood reservoirs ■ The largest is Bewl Water (the largest reservoir in south-east England, supplying 2 million customers[8]) which supplies water to the Medway towns, local villages, North Maidstone and also Darwell Reservoir. It is also important for tourism and recreation, as are Darwell and Ardingley. ■ Weir Wood Reservoir supports a rich community of breeding birds and is designated as a SSSI ■ The reservoirs comprise large sheets of water with sinuous edges and meandering inlets reflecting their origin as gill valleys, reflective surfaces, particularly in autumn when the surrounding wooded landscape is bright with autumn colours.
Water catchments and associated wetland habitats.	■ The NCA covers major water catchment areas - Rother, Ouse, Medway, Arun and Adur, Cuckmere and Romney marsh. ■ The High Weald is a source of a number of major rivers in south-east England and has dendritic drainage pattern with numerous small streams forming the headwaters of the main rivers. ■ Threats to the extent and connectivity of associated wetland habitats of these rivers. ■ Surface water is important for abstraction all be it in lesser quantities than from groundwater.

[8] *High Weald NCA Interim Objectives*, Natural England (2010)

Landscape attribute	Justification for selection
Geological features.	■ The High Weald lies at the core of the Wealden anticline and is geologically complex, dominated by a corrugated dome of sandstones and clays belonging to the Lower Cretaceous Hastings Beds – forming the ridges and valleys. ■ Scattered outcrops of sandstone outcrops which support sandrock bryophytes communities. ■ Numerous stream valleys and steep ravines. ■ Geological interest of the coast and most southerly exposures of the Hastings Beds.
Woodlands – ancient woods, gill woodlands, and shaws.	■ The area remains one of the most densely wooded areas in England with abundant semi- natural ancient woodland as well as chestnut coppices and conifer plantations. ■ Decline in active woodland management particularly coppicing has led to a corresponding decline in species associated with coppice, including woodland butterflies such as fritillaries. ■ Gill woodlands are characterised as lying over steeply incised valleys where a stream has eroded the underlying rock. These provide a micro-climate and support rare species such as the ivy leaved bell flower and hay scented buckler fern. ■ Map evidence shows that there are more than 1,000 gills in the Weald. ■ Many of the gill woodlands support a number of 'Atlantic' plants uncommon in south-east England and many only found in the Weald and the west of Britain.
Parklands.	■ The total area of Registered Parks and Gardens is over 4,500 ha with 56 sites. ■ The wealth of parkland is representative of park and garden styles ranging from the 16th to the 20th century. ■ Many have trees which are century's old and important habitats for various species. Once lost these habitats are irreplaceable within a short timescale. ■ Historic parklands are an important part of the cultural landscape. ■ Eridge Park SSSI is considered to have one of the richest parkland lichen floras in Britain.

Landscape attribute	Justification for selection
A landscape rich in heritage assets and historic environment features and elements.	■ There is a legacy of sites associated with the iron industry – in the first two centuries of the Roman occupation and during Tudor and early Stuart periods the Weald was the main iron producing region in Britain. ■ The Battle of Hastings Registered Battlefield is the site of one of turning points in English history. ■ A large number of listed buildings (7,370) many representing the agricultural and industrial vernacular and the gentry buildings resulting from the wealth generated from these activities. ■ 91 Scheduled Ancient Monuments. ■ Many upstanding, earthwork and buried heritage assets including hill forts, medieval settlement sites, Mesolithic remains, earthworks, abbeys, castles, iron bloomeries, furnaces and working sites, Roman sites, Roman roads, parklands, medieval moated sites and underground archaeology.
Rights of way, open access land and other recreational opportunities.	■ Recreation is supported by the area's 3,043 km rights of way network, including the Sussex Border Path, High Weald Landscape Trail and Weald Way, as well as a significant area of open access land. ■ Further significant recreational opportunities are provided by the area's reservoirs, with watersports and angling provided by the Ardingly, Weir Wood and Bewl Water reservoirs and recreational opportunities offered by the coast.
Tranquillity.	■ Tranquillity levels have declined notably in recent years, with the area recorded as 'undisturbed' having decreased from 76 per cent in the 1960s to 44 per cent in 2007. ■ The largest areas of tranquillity lie away from the main transport corridors and major settlements. Nevertheless, the pastoral, heavily wooded, medieval character of the landscape has a strong sense of tranquillity, further accentuated by the traditional character of villages, sunken lanes, the wooded ghyll (gill)s and intimate views, which together also create a strong sense of timelessness.

Landscape opportunities

- Maintain the existing extent of woodland and particularly ancient woodland, maintaining and enhancing the landscape character, ecological functioning and connectivity of woodland at a landscape scale, protecting the historic environment and historic assets of the woodlands, increasing output of sustainably produced high quality timber and underwood for local markets and contributing to renewable energy sources.

- Maintain existing quantity of gill woodlands and enhance their quality for features of interest.

- Protect the geological resources and exposures of the Purbeck Group and Hastings Beds of the Wealden series including the sandstone outcrops, maintaining nationally important geological exposures, to conserve the fern, moss and liverwort communities they support and to protect their value as some of the most significant sites of prehistoric archaeology in addition to the inland geological features exposed in active and disused quarries, road cuttings and natural exposures.

- Maintain and enhance the complex mosaic and pattern of High Weald habitats and the distinctive pastoral fields and areas of heath. Improve the condition and connectivity of fields and heaths and their associated and interrelated habitats, including hedgerows, woodlands, ditches, and ponds and plan for the extension and or linking of existing habitats in order to strengthen landscape character and increase climate change resilience.

- Manage and enhance the character, condition and quality of rivers, standing water habitats and areas of flood meadow, fen, wet woodland and grazing marsh that provide some of the fine- grain components of the landscape. This will also help to create a more extensive ecological network of wetland and riverine habitats, increasing adaptation to climate change, as well as helping to improve water quality and help alleviate flooding through water storage.



Walking and enjoying the views are popular activities in the High Weald.

- Maintain and enhance the distinctive pattern of dispersed settlement of historic farmsteads, hamlets and villages, to promote sustainable development in rural locations and meet local needs for affordable and where possible land based workers, and enhance the design and quality of new development in the landscape meeting local distinctiveness and design guidance.

- Protect from damage and appropriately manage the area's rich and distinctive historic environment including parks and wood pastures, ancient routeways, archaeology, settlement patterns and field systems, and significant industrial heritage linked to the iron industry. Identify educational, access and research opportunities to further the understanding of these assets and link communities with their local heritage, while securing appropriate management of important sites.



A view from Pett Beach to Hastings Cliffs, an area of underdeveloped coastline consisting of actively eroding soft cliffs of sands and clays.

- Manage existing and future developments to ensure that sense of place is maintained by making reference to local vernacular building styles and materials, and settlement patterns and distributions. Ensure that proposed growth is sustainable and protects and enhances the character of the area with new building sympathetic to local styles. Where development is permitted, ensure good green infrastructure is included to bring about multiple benefits for people and the environment.

- Work to manage and maintain the existing public rights of way network which not only delineate patterns of occupation and provide excellent access but also provide an essential network of ecological connections across the wider countryside. Increase the number of connecting permanent and permissive routes to link promoted routes, high profile greenspaces and tourist attractions where appropriate, helping to improve peoples' physical and mental health through contact with inspirational landscapes and access to the countryside, while ensuring recreational pressures are balanced against the needs of landscape and nature conservation.

- Conserve the coastal strip, including the geological, geomorphological and biodiversity assets, allowing for continuance of natural processes on the unprotected cliffs of international biological and geological importance.

- Facilitate and promote the use of the sustainable transport throughout the area and to major settlements beyond, to reduce car dependency and further help maintain the levels of tranquillity of the landscape and particularly within the AONB.

Ecosystem service analysis

The following section shows the analysis used to determine key Ecosystem Service opportunities within the area. These opportunities have been combined with the analysis of landscape opportunities to create Statements of Environmental Opportunity.

Please note that the following analysis is based upon available data and current understanding of ecosystem services. It does not represent a comprehensive local assessment. Quality and quantity of data for each service is variable locally and many of the services listed are not yet fully researched or understood. Therefore analysis and opportunities may change upon publication of further evidence and better understanding of the inter-relationship between services at a local level.

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Food provision	Agricultural land - majority Grade 3 and 4 supporting a pastoral landscape Livestock Horticulture Permanent grassland	Mixed pastoral landscape supporting predominantly sheep with fewer numbers of cattle and pigs (over 180,000 sheep, 43,000 cattle and over 8,000 pigs). There is also some horticulture although recent agricultural statistics suggest the area under horticulture has declined between 2000 and 2009. Many part time farmers, specialist producers and agricultural contractors, working within often small average farm size. Traditional breeds of cattle including Sussex cattle, South Downs sheep and Romney Marsh sheep.	Regional	Sheep- and to a lesser extent cattle-grazed pastures remain the mainstay of agricultural activity in the NCA these are closely linked to the cultural aspects of the area; the sense of place, biodiversity, sense of history and heritage assets. Given the grassland traditions in the area, further local branding may be beneficial and add value. There has been an increase in non-farming, non-food producing land ownership and a shift from productive land to underused leisure land. There is a corresponding decline in working farm yards and lack of flexible workspace for small-scale production and processing threatening the farming futures of the Weald. Horticulture has declined but there is potential to support appropriate expansion.	Continue to work with the farming community to support the profitability of farming businesses. Support expansion of small-scale horticulture. Encourage flexible, adaptable and multifunctional production systems particularly on underused improved pasture. Increase awareness and enthusiasm for local food and the benefits of short supply chains, improving understanding of the links between a farmed landscape and biodiversity benefits.	**Food provision** **Regulating water quality** **Sense of place / inspiration**

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Timber provision	Woodland covering 26 per cent of NCA Surviving coppice industry and traditional skills Demand for oak for renovation and ancillary buildings Strong local networks and exchanges	Current use of timber stands at 32,000 cubic m/ annum which is 15 per cent of estimated potential annual production.[9]	Regional	There is significant potential to increase use of timber by focusing on local markets; small-scale and flexible harvesting and processing; modern techniques for using small dimension coppice material and improved forest management to favour timber quality. The small size and comparative inaccessibility of woodlands presents constraints to timber provision as does the high proportion of sensitive ancient woodland (approximately 50 per cent of the woodland area with a further 25 per cent being plantation on an ancient woodland site), an aging workforce and consequent loss of specialist skills, low incomes for woodland workers and small businesses lacking capital to invest, low grade timber with squirrel and deer problems further limiting future growth of quality timber, lack of markets and lack of affordable housing for woodland workers. Lack of management, deer and pest problems, non-native invasive species and fragmentation also present significant challenges to potential timber provision.	Support small-scale operations with hand held machinery and requiring specialist skills in the most sensitive locations. Support and encourage the use of locally sourced timber in housing development and building restoration projects. Support design, innovation and use of new technologies in the timber industry that address the constraints identified. Support sustainable woodland industry with new markets and products developed for locally sourced timber and underwood.	**Timber provision** **Biodiversity**

[9] *High Weald Woodlands: Carbon report*, a report to the High Weald JAC by Sandy Greig, Independent Forestry Consultant (July 2010)

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Water availability	Geology – sands, silts and clay ridges, give rise to many small springs and streams Reservoirs – four major reservoirs including the largest reservoir in the south-east of England Minor sandstone aquifer	The major rivers draining the High Weald are the Ouse and the Cuckmere, which flow south to the coast, the eastern Rother, the Brede and the Tillingham which flow west to east into the Rye estuary, and the Medway which flows north into the Greater Thames Estuary. The Ashdown Beds and Tunbridge Wells Sands are minor aquifers that provide important local groundwater sources for abstractions (mainly for public water supply, and to a lesser extent for industry and agriculture). They also help to support base flow to the tributary streams of the rivers Ouse and Cuckmere, although flows of the former are naturally low during the summer and abstraction can be unreliable.[10] The Medway springs in the High Weald receive spring flow from water stored within the Hastings Beds aquifer. Abstractions are mostly used for public water supply and are from both the surface and groundwater, although more from the latter. There are four reservoirs – Weir Wood, Ardingly, Bewl Water and Darwell and a large volume of water abstracted is primarily used to fill these reservoirs. Bewl Water supplies the Medway towns (Chatham, Rochester and Gillingham) located outside the NCA and local villages. Weir Wood is an on-line reservoir, capturing excess run-off from the upper Medway catchment, supplying Crawley and North Sussex.[11] **Continued over...**	Regional	This NCA has an important role in water provision; captured in reservoirs the area provides water for major conurbations both within and outside the NCA. Increased development, population pressures and climate change are likely to increase the demands for water and decrease the availability of water in the future. The availability of water is critical to the condition of main watercourses in the area and the biodiversity they support. There needs to be a balance to meet the demands of existing and future abstractions and the need to protect river flows to meet environmental requirements.	Seek, where possible, to increase water retention and reduce run-off to increase percolation of water and thereby increase availability in periods of low rainfall. Work across sectors and in a co-ordinated and strategic way within and outside the boundaries of the NCA to protect water resources including through the promotion of efficient and sustainable use of water resources. Ensure good green and blue infrastructure measures in new developments to help safeguard water resource, harvest and store water and promote water efficiency. Encourage adoption of integrated water and land management strategies for the High Weald river catchments in accordance with the Water Framework Directive. Encourage the integration of environmentally sensitive water policy objectives through land management practices such as agri-environment schemes, water resource and land use planning to ensure an appropriate balance is maintained between water supply and demand. **Continued over...**	**Water availability** **Regulating water flow** **Regulating soil erosion** **Regulating soil quality** **Climate regulation** **Sense of place/ inspiration** **Sense of history**

[10] *Adur and Ouse & Cuckmere and Pevensey Levels Catchment Abstraction Management Strategies*, Environment Agency (URL: www.environment-agency.gov.uk/business/topics/water/119927.aspx)

[11] *Medway Catchment Abstraction Management Strategy*, Environment Agency (URL: www.environment-agency.gov.uk/business/topics/water/119927.aspx)

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Water availability continued		**...continued from previous.** The major river valleys of the Rother and Brede provide water to fill Darwell Reservoir which supplies the Hastings area, while the Ardingly Reservoir supports the Barcombe abstraction outside of the NCA. The Hastings Beds as a groundwater provider have a predominant status of 'no water available'. The rivers of the NCA are predominantly classed as over licensed or having no water available.[12]			**...continued from previous.** Promote the use of winter water storage reservoirs on farms and restore and expand the network of ponds. Protect the water resources of the NCA by promoting good agricultural and land management practices. Further, promote sustainable use of water resources, protecting the aquifer, reservoirs and surface waters from over abstraction and safeguarding water supply. Further, promote the sustainable recreational use of the reservoirs.	

[12] *Rother Catchment Abstraction Management Strategy*, Environment Agency (URL: www.environment-agency.gov.uk/business/topics/water/119927.aspx)

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Genetic diversity	Sussex cattle including South Downs and Romney Marsh sheep Fruit varieties in traditional orchards	Livestock farming remains the main agricultural activity in the area and retains and supports significant numbers of Sussex cattle. Orchards can be found throughout the High Weald but are concentrated in Kent and the Kent/Sussex border, with over 1,430 ha of orchards present in the Kentish High Weald.[13]	Local	Sussex cattle are good for grazing tussocky grasslands. The breed is ancient in origin and of genetic heritage value. Grazing with rare breeds in the NCA benefits biodiversity, heritage and food provision. The more biodiversity-rich traditional orchards have declined by 90per cent since the 1950s and are few and far between – the remaining fragments largely being located around Brenchley and Matfield.[14] Traditional orchards support a far greater variety of wildlife such as lichens, invertebrates, owls and woodpeckers than commercial orchards but cost much more to maintain and harvest. Bees thrive in orchards – the blossom of fruit trees is an important source of pollen for bee colonies enabling them to build up the population and in good years produce surplus honey. Traditional orchards are threatened by a lack of management; public demand for products from the remaining small specialist growers is essential. A non-commercial interest in restoring neglected orchards and planting new ones with locally grown varieties will help to maintain this important habitat. Modern orchards, although less wildlife-rich than traditional orchards, can still be a valuable wildlife habitat and their maintenance requires a continued demand for local rather than imported fruit. Genetic diversity afforded by traditional varieties of fruit is also important for maintaining future food provision and resilience to disease and climate change.	Retain the genetic resource of traditional cattle that provide breed options suitable for quality meat. Encourage the use of traditional breeds on High Weald grasslands to contribute to the sustainable management of soils and benefits for biodiversity. Work with local communities and landowners to rebuild populations of traditional varieties of top fruit where appropriate, maintaining genetic diversity, biodiversity, pollination and sense of place and sense of history.	**Genetic diversity** **Sense of place/ inspiration** **Sense of history** **Biodiversity** **Regulating soil quality** **Regulating soil erosion** **Pollination** **Climate Regulation**

[13] Kent Habitats Survey 2003, in Kent High Weald Land Managers Pack (URL: www.grasslandtrust.org)

[14] Kent High Weald Land Managers Pack (URL: www.grasslandtrust.org)

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Biomass provision	Existing woodlands	The existing woodland cover (26 per cent of the area) offers significant potential for the provision of biomass, both through bringing unmanaged woodland under management or as a by-product of commercial timber production. The potential yield of short rotation coppice is medium throughout the NCA apart from small areas of low potential yield around Crawley, Crowborough and along the coast between Hastings and Bexhill. Miscanthus potential yield is high throughout the NCA, apart from small areas to the south and north-east of East Grinstead that have medium potential. For information on the potential landscape impacts of biomass plantings within the NCA, refer to the tables on the Natural England website http://www.naturalengland.org.uk/ourwork/farming/funding/ecs/sitings/areas/default.aspx.	Local	It may be possible to increase biomass production by supporting coppice management of deciduous woodland. However, this is challenging and a lack of markets for low grade broadleaved timber, particularly coppice has led to declines in rotational woodland management. This has had knock-on effects for the biodiversity of woodland habitats. While opportunities for a high potential yield of miscanthus have been identified, identifying suitable locations that do not compromise other interests may be difficult.	Bring local woodlands under traditional coppice management, at the same time improving the woodland habitat for wildlife, by extending the area of appropriately managed woodland to enhance habitats and species populations. Support sustainable woodland industry with wood fuel and wood use marketing to connect local woodland owners with local demand. Promote sustainable woodland management techniques (such as coppicing, pollarding and wood fuel production) to increase carbon sequestration and the resilience of tree species to climate change and disease.	**Biomass provision** **Biodiversity** **Climate regulation**

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Climate regulation	Soils Ancient semi-natural woodland Wetlands and grazing marsh Permanent grassland	The soils are predominantly mineral soils and most of the area has a low soil carbon content of between 0 and 5 per cent. However, the naturally wet very acid sandy and loamy soils (3 per cent) have mostly organic topsoils which are a store of carbon, while some of the flood plain soils (2 per cent) are peaty at depth or include small areas of peaty soils. There are areas of soils with a carbon content of between 10 and 50 per cent over Ashdown Forest and just south of Royal Tunbridge Wells reflecting areas of extensive heathland and woodland cover where soil organic levels are likely to be high. The woodland cover also creates soils that have higher carbon levels. The trees of the woods and forests of the area (26 per cent) store and sequester significant amounts of carbon.	Local	It has been recognised that UK woodlands and trees have the potential to play an important role in reducing greenhouse gas emissions.[15] Sustainable management of the NCAs woodlands with sustainably produced wood fuel and wood products could help fulfil this potential. This would also provide other services for example by restoring some of the local traditional woodland management techniques which have existed for centuries, benefiting sense of place and biodiversity. Favourably managed wetland, heathland and grassland habitats and maintaining or extending their extent will also be of benefit for carbon sequestration and storage, particularly carbon stored in undisturbed soils, with potential for multiple benefits such as water regulation (flooding) and biodiversity gains.	Promote appropriate land management practices in places that reduce greenhouse gas emissions and store carbon. Maintain, and where appropriate expand the area of woodland, ensuring the maintenance of the key components of the cultural landscape and to maintain continued contributions to carbon storage and sequestration. Undertake further research to understand the role of trees and woodlands in a changing climate and impact of climate change on the woods themselves. Maintain and where appropriate extend areas of permanent pasture to prevent loss of carbon dioxide and increase the potential for further carbon storage.	**Climate regulation** **Regulating water quality** **Regulating water flow** **Biodiversity** **Regulating soil quality** **Timber provision**

[15] *Combating climate change – A role for UK Forests: Main report. An assessment of the potential of the UK's trees and woodlands to mitigate and adapt to climate change*, National Assessment of UK Forestry and Climate Change Steering Group (2009)

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating water quality	Woodland Shaws Permanent pasture	The water quality of the area's rivers is mixed. The Tillingham is of 'good' ecological quality,[16] the rivers Rother and the Brede are both 'moderate' (both classified as poor for phosphates). The ecological quality of the Ouse and its tributaries range from 'poor' to 'good' and one section just north of Uckfield on its tributary, the Uck, is of 'bad' quality for overall biological quality, while further west, the headwaters of the River Arun are classed as 'moderate'. The estuarine waters along the coast are generally of 'moderate' ecological quality. The River Rother forms part of a Defra Priority Catchment and is of moderate status. Pevensey Priority catchment meanwhile falls within the southern part of the NCA, where pollution from sediment, nitrates and phosphates draining off arable land is the main issue.[17] Groundwater in the northern half of the NCA is classed as having 'poor' chemical status, while in the southern half it is classed as 'good'.[18] Current quantitative quality is good.	Regional	Water quality is important to this area in support of much of the biodiversity resource to be found associated with rivers, watercourses and wetlands. Careful management of grasslands and livestock, particularly minimising inputs, controlling access to watercourses and waste management is essential to maintaining good water quality of both underlying aquifers and surface waters. A good quality water environment can also have benefits for the economic and social amenity value of developments and improve the quality of urban areas.[19]	Maintain areas of permanent pasture with extensive grazing and low fertiliser inputs. Work with landowners, the private and public sector, and in partnership with water companies across rural and urban areas to work at the catchment scale to reduce surface and groundwater pollution, while simultaneously improving aquifer recharge, sharing best practice and adopting a collaborative approach to sustainable water management. Produce an NCA-wide assessment to identify the potential of naturally functioning rivers and flood plains to regulate water quality, reduce flood risk and enhance wildlife and fisheries. Promote the sustainable water principles of the Environment Agency's River Basin Management Plans, Catchment Flood Management Plans and Water Company's Water Resource Management. Explore opportunities to buffer watercourses and reservoirs and restore natural river geomorphology to improve water quality and reduce flood risk in settlements by regulating water flow. **Continued over...**	**Regulating water quality** **Regulating soil erosion** **Regulating water flow** **Biodiversity**

[16] For more information on Water Framework statuses in this NCA please see the relevant River Basin Management Plans (www.environment-agency.gov.uk/)

[17] Defra catchment priorities identified under the England Catchment Sensitive Farming Delivery initiative.

[18] *Water for life and livelihoods*, Environment Agency (www.environment-agency.gov.uk/research/planning/33106.aspx)

[19] *River Basin Management Plan, Thames River Basin District*, Environment Agency (2009)

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating water quality continued					**...continued from previous.** Work with land owners, farmers and domestic property owners with private waste water systems to address issues arising from point source pollution such as improving farm infrastructure and finding innovative solutions to the treatment of domestic waste water.	
Regulating water flow	Fast flowing rivers and streams Wooded valleys Wetlands Permanent pasture Ponds	The NCA comprises an elevated area that naturally sheds water into its fringe and neighbouring areas. The underlying clay of the area means that there is often inadequate drainage; impermeable alluvial soils become waterlogged for much of the year and can prevent floodwaters from dispersing quickly. On flat lands. On slopes, once the soil is waterlogged the water has no option than to run over the surface causing flooding at the bottom of the slope. Flooding has recently affected most of the area's major towns, including Uckfield, Haywards Heath, East Grinstead, Crawley and Tunbridge Wells (as well as significantly in Tonbridge lying just to the north of the NCA). Due to the significant risk of flooding throughout and in adjoining NCAs, relevant catchment flood management plans identify a number of measures including increasing flood storage and management of run-off in locations that provide overall flood risk reduction or environmental benefits. Flood risk occurs near the coast due, predominantly, to poor surface water drainage and occasional blockages within culverts or drains, exacerbated by high tides and high groundwater levels, affecting Hastings and Bexhill. In some locations natural flood plains have been modified by farming and urban development with the result of increasing run-off to the lower parts of catchments.	Regional	Management of river catchments is critical to the regulation of flooding in major settlements within and outside of the NCA. Flood events are expected to increase with climate change and many of the rivers have a naturally flashy character and can be prone to winter flooding – for example that experienced in Uckfield in 2000.[20] Naturalising flood plains and creating wetland habitats will reduce flood risk and make a significant contribution to mitigating flood risk while also having positive impacts on biodiversity. Appropriate management of permanent pasture, shaws and hedgerows will also contribute to reducing the velocity of cross-land flows. Increasing urban development may also exacerbate the situation and it will be important to reduce run-off from new and existing development including through the implementation of sustainable urban drainage systems and good green infrastructure planning. There needs to be appropriate management within catchments to store water or manage run-off to help reduce and mitigate flood events.	Opportunity to increase understanding of the benefits of adopting river restoration policies that can make use of natural processes to reduce flooding, improve aquatic systems, increase amenity value, provide ecosystem services and reduce costs of maintaining current systems. Seek opportunities for integrated water and land management strategies for river catchments to reduce flood risk and increase water retention within catchments, learning from best practice examples. Maximise opportunities for natural processes to take place by restoring and expanding the functional flood plains along the rivers to bring about a reduction in flooding and increases in biodiversity, water quality and amenity value. Explore opportunities in the valley bottoms to look at pushing flood flows out of eroded water courses onto grassland and woodland to slow down flood flows.	**Regulating water flow** **Regulating water quality** **Regulating soil erosion** **Biodiversity**

[20] Adur and Ouse Catchment Abstraction Management Plan

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating soil quality	Permanent habitats – grassland, woodland Heath	Slightly acid loamy and clayey soils with impeded drainage, covering 62 per cent of NCA. There are five main soilscape types in this NCA; ■ Slightly acid loamy and clayey soils with impeded drainage, covering 62 per cent. ■ Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils (28 per cent). ■ Freely draining slightly acid loamy soils (4 per cent). ■ Naturally wet very acid sandy and loamy soils with high carbon content of up to 50 per cent which are found on the heaths 3 per cent) ■ Loamy and clayey flood plain soils with naturally high groundwater (2 per cent).	Local	The greatest risk to soil quality in this NCA is related to the predominance of permanent pasture and the impacts of inappropriate stocking or inappropriate use of machinery leading to soil compaction during periods of wet weather. The permanent habitats of grassland woodland and heath support soils of higher quality less prone to degradation. The slightly acid loamy and clayey soils with impeded drainage (62 per cent) are easily poached by livestock and compacted by machinery when the soil is wet, with weak topsoil structures easily damaged. Careful timing of activities is required to reduce the likelihood of soil compaction. The slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils (28 per cent) may similarly suffer compaction and/or capping as they are easily damaged when wet, which in turn may lead to increasingly poor water infiltration and diffuse pollution as a result of surface water run-off. There are areas of soils with a carbon content of between 10 and 50 per cent over Ashdown Forest and just south of Royal Tunbridge Wells reflecting areas of extensive heathland and woodland cover where soil organic levels are likely to be high.	Retain and where appropriate extend the area of permanent grassland, woodland and heath to protect soils, particularly in areas where a reduction in condition would result in erosion and subsequent impacts on productivity and watercourses. Identify and apply grazing regimes that increase sward diversity and increase the deposition and overall levels of organic matter. Manage with extensive grazing regimes to reduce stocking densities and avoid soil compaction. Also avoid compaction through unnecessary machinery use particularly during protracted periods of wet weather.	**Regulating soil quality** **Climate regulation** **Regulating soil erosion** **Regulating water flow**

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating soil erosion	Permanent semi-natural habitats permanent grassland Woodland and heath Hedgerows and shaws Arable margins	Just more than two-thirds of the NCA is susceptible to some form of soil erosion. The main soil type (loamy/clayey soils with impeded drainage, covering 62 per cent of the NCA) is prone to compaction and capping and slaking, leading to increased risk of soil erosion by surface water run-off, especially on steeper slopes. The freely draining slightly acid loamy soils (4 per cent) have enhanced risk of soil erosion on moderately or steeply sloping land exacerbated where organic matter levels are low where soils are compacted. Some of these latter soils are also easily eroded if heavily trafficked after heavy rain. The Eastern Rother and the Pevensey Levels Defra Priority Catchments both fall to a significant degree within the eastern half of the NCA, due in part to sedimentation of watercourses as a product of soil wash from agricultural land.[21]	Regional	Loamy clayey soils with impeded drainage support the predominantly arboreal character of the area and the permanent pasture in much of the area reduces the risk of soil erosion. Desiccation of heathland soils in drought can increase the risk of soil erosion.	Maintain areas of permanent pasture and be alert to the risks of soil erosion associated with any changes in land use, maintaining pasture in areas particularly prone to soil erosion or adjacent to rivers and streams. Plan for the creation of cross-land breaks, hedgerows and shaws, arable margins. Cultivation timings and alignments (cross-slope rather than with the slope). Explore best practice stocking ratios and appropriate movement of feeding stations.	**Regulating soil erosion** **Regulating soil quality** **Regulating water flow** **Climate regulation**

[21]Defra catchment priorities identified under the England Catchment Sensitive Farming Delivery initiative (URL: www.defra.gov.uk/foodfarm/landmanage/water/csf/documents/catchment-priorities.pdf)

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Pollination	Species-rich grassland Unimproved meadows Heathland Network of hedgerows and shaws Roadside verges	With over 3,000 ha of heathland and just less than 1,000 ha of grassland, this NCA contains an important source of nectar for pollinating insects. Managed in traditional ways through hay-making and grazing rather than the intensive farming methods of today, unimproved pastures contain a wonderful diversity of native wildflowers, grasses and the threatened green winged orchids vital for supporting bumblebees and other pollinating insects that feed on them. Oxeye daisy, bird's-foot trefoil, betony, yellow rattle, self-heal and red clover mix with meadow grasses such as the crested dog's-tail and sweet vernal grass providing an important source of nectar for pollinators and sweet hay for winter feed for grazing animals	Local	Unimproved meadows and extensive heathland provide important nectar-rich areas supporting an array of pollinating invertebrates. Lowland meadows are at risk due to changes in land management, for example from intensification or changes in land use. Further loss of this habitat would reduce the amount of nectar-rich flowers. Sympathetic management of road verges can be beneficial and are aesthetically pleasing, maintaining sense of place and on ancient routeways a sense of history, reinforcing the local identity and character of the area.	Increase the area of semi-natural habitat with emphasis on extending and connecting unimproved meadows and heathland. Work across sectors to create multifunctional green spaces incorporating sympathetic land management. Maintain and enhance the floristic diversity of hedgebanks, where possible to increase the range of flowering plants and increase the area, range and connectivity of habitat mosaics making connections between existing sites attractive to pollinators.	**Pollination** **Food provision** **Sense of place/ inspiration** **Sense of history** **Biodiversity**
Pest regulation	Existing semi-natural habitat Species-rich hedgerows Woodland Mixed farming	There are large areas of semi-natural habitat which will support species that will aid pest regulation.	Regional	Although there is a reasonable spread of rich semi-natural habitat and pastoral landscape across the NCA there is scope to improve the condition of this habitat through appropriate management and to extend it where possible. The proximity of the area to continental Europe may make it more susceptible to new pest arriving into the country.	Maintain and expand the area of semi-natural habitats, throughout the NCA to provide a range of niches to support pest regulating species including invertebrates, birds and mammals. Through mechanisms such as agri-environment schemes, encourage the use of field margins, beetle banks and headlands in arable land, to encourage pest regulating species in close proximity to food crops.	**Pest regulation** **Pollination** **Biodiversity** **Food provision**

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Regulating coastal erosion and flooding	Hastings cliffs	This section of coast covers from Fairlight Cove in the north to the south-western edge of Bexhill, bordering the Pevensey Levels shoreline further east. This area of coastline is built up with the towns of Bexhill and Hastings but also includes the Hastings Cliff to Pett Beach SSSI which is a coastal site of geological and biological importance. A number of habitats are represented including woodland, scrub, maritime grassland and vegetated shingle beach. Hastings Cliffs are actively eroding soft cliffs on the south coast of England; the clay cliff slopes are eroding and support a range of habitats from bare ground and flushes to maritime grassland and scrub reflecting the successional development of vegetation following cliff falls.	Regional	The policy along the urban frontage of Bexhill and Hasting is to 'hold the line', which will result in significant narrowing of the foreshore due to predicted sea level rise, and could impact upon the tourist economy of the town and compound the phenomenon of 'beach squeeze'. The clifftop village of Fairlight in the north is fronted by a mixture of active landsliding cliffs, simple vertical cliffs and a cliff toe defence structure to limit erosion – the proposed policies are a combination of 'hold the line', 'no active intervention' and 'managed realignment', aiming to maintain natural processes that preserve and enhance geological and landscape interest while protecting cliff-top properties where feasible. The long term policy between Fairlight and Hastings, an area of unprotected cliffs of international environmental and geological importance, is to allow natural cliff retreat under 'no active intervention', preserving their interest while also supplying sediment to the area's shoreline and the shoreline further east. In the long term there will also be a need to re-route sections of the Saxon Shore Way coastal footpath.[22]	Maintain active and uninterrupted erosion to allow natural processes to prevail were possible, especially where this supports and enhances natural flood defence mechanisms and allows for the exposure and interpretation of nationally important geological formations and coastal geomorphological processes.	**Regulating coastal erosion and flooding** **Sense of place/ inspiration** **Biodiversity** **Geodiversity**

[22] *South Foreland to Beachy Head Shoreline Management Plan* (URL: www.se-coastalgroup.org.uk/assets/smpr/docs/html/frameset.htm)

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Sense of place/ Inspiration	Pastoral landscape Steep-sided densely wooded valleys with meandering streams and rivers Unimproved meadows Distinctive and dynamic coast Vernacular architecture	Sense of place is provided by a highly distinctive and strongly medieval landscape. The NCA rises above the Low Weald as a central core of faulted clays and sandstones, with deeply incised ridges tending east-west from which rise numerous gill streams that form the headwaters of many of the main rivers of south-east England. Ashdown Forest is one of the most extensive areas of heathland in south-east England. Fields are typically used for grazing and small-holdings, many containing unimproved, species-rich meadows, also with a tradition of orchards and hop gardens, particularly to the east. Reflecting the medieval character of this landscape (considered to be one of the best surviving coherent medieval landscapes in northern Europe) there is a dispersed historic settlement pattern of farmsteads, hamlets and late medieval villages linked by ancient routeways (now roads and rights of way) in the form of ridgetop roads and a dense system of radiating droveways, often narrow, deeply sunken and edged with trees and hedgerows and wildflower-rich verges and boundary banks. Vernacular buildings have a strong local character influenced by a variation in locally available, building materials resulting in an abundance of weatherboard, brick, tile, stone or rendered buildings. Oast houses, stone church towers and spires add to the local distinctiveness. **Continued over...**	National	The High Weald has a very strong character defined by its underlying geology. It has a clear sense of identify with the majority of the NCA being designated as an AONB. Today the High Weald, and particularly Ashdown Forest, is well-known internationally as the home of the character of Winnie the Pooh. The forest also inspired William Robinson who pioneered the English natural garden movement and writers such as Rudyard Kipling.	Identifying, protecting and reinforcing the distinctive elements and features of the landscape are essential to maintaining the distinctive and inspirational character of the area. Ensure that new development respects local settlement patterns and building materials to avoid the loss of historic evidence through insensitive development or management. Maintain the dispersed settlement pattern by managing the setting of villages together with the integrity of their vernacular styling. Maintain the historic division of field patterns. Ensure that the repair, restoration or conversion of vernacular buildings is carried out with due regard to their historic environment, using local materials and techniques to maintain local distinctiveness, construction techniques and traditions. Work with local communities to encourage the continuation of traditional land management practices and land uses that are intrinsic to the High Weald landscape and sense of place. **Continued over...**	**Sense of place/ inspiration** **Sense of history** **Biodiversity**

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Sense of place/ Inspiration continued		**...continued from previous.** Small hammer ponds, large reservoirs and a considerable number of country houses with their associated parklands are other significant features within the High Weald landscape, adding interest and variety.			**...continued from previous.** Explore opportunities to conserve the cultural heritage of local authors and artists by maintaining the traditions that create the High Weald's distinctive landscape and local sense of place. Due regard should be given to the core components of natural beauty in relation to planning of development for towns and villages within and adjacent to the AONB.	
Sense of history	Historic Parks and Gardens Historic building such as farmsteads Maritime history such as shipbuilding Settlements Battle Abbey	The history of the landscape is most evident in the medieval pattern of fields, Wealden iron industry, wealth of historic parks and gardens, historic buildings including farmsteads, connections with maritime history such as shipbuilding and woodland and settlement linked to the practice of cultivating small parcels of land for rent or "assarting". Settlement pattern of villages, hamlets and scattered farmsteads is dispersed and largely sited on ridges linked by a dense network of sunken, winding roads. Buildings are traditionally constructed in white weatherboard, red brick and hung tiles of varying local styles, with many of the larger towns such as Tunbridge Wells, Crowborough, East Grinstead, Bexhill, Hastings and Horsham having good examples of high quality vernacular architecture. Oast houses linked to the past growing of hops, particularly to the east, timber framed barns and stone churches, the latter forming key landmarks on ridges, are also distinctive features. **Continued over...**	International	Damage to historic buildings, historic routeways, boundaries and archaeological monuments through lack of awareness, plough damage, poor maintenance or management. Much below ground heritage may be undiscovered, particularly in woodlands and care should be taken not to damage or disturb buried heritage assets. Plough and cultivation damage in a predominantly pastoral landscape, may be less of an issue than poach and animal damage. Woodland archaeology is susceptible to damage from forestry operations or wind-thrown trees in unmanaged woods. Woodland archaeology is susceptible to damage from forestry operations and wind thrown trees in unmanaged woods. Good management practices need to be maintained to ensure that historic parks and gardens continue to be key representative features of the High Weald landscape. Emphasis should be placed on the need to protect and interpret the wealth of heritage present.	Increase protection of above and below ground archaeology and designed parkland. Recreational opportunities such as circular walks linked to the positive management and conservation of historic features to aid understanding, enjoyment and sense of wellbeing. Increase protection for and awareness of the best preserved examples of networks of historic routeways. Increase identification, recording, management, promotion and understanding of the historic assets, improved management and understanding of the historic environment. Opportunities to enhance the setting, interpretation and legibility of heritage assets should be indentified and realised. **Continued over...**	**Sense of history** **Biodiversity** **Geodiversity** **Sense of place/ inspiration** **Recreation**

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Sense of history continued		**...continued from previous** The area was known as the 'Foundry of England', with the Wealden iron industry (15th–17th century) based on sandstone, iron ore, water and coppice timber and associated industries, leaving a legacy of extensive coppice woodlands with charcoal used for the forges and characteristic 'hammer ponds' which provided power and forge sites. Wealth generated by the iron industry and latterly London merchants resulted in large estates, grand houses and parklands including Eridge Park, one of the oldest deer parks in the area, Ashburnham Place, Grattons Park and Sissinghurst, as well as the designed landscapes of Repton's Bayham Abbey and Penshurst Place. Aspects of history likely to be most evident to the general public include Ashdown Forest, a former Royal Hunting Forest which forms the literary landscape much loved by readers of Winnie-the-Pooh books, as well as the area's parklands and grand country houses and traditional oast houses and other historic buildings and towns.			**...continued from previous** Promote the widespread use of local timber in construction with support for good design and specification and merging traditional skills with new management practices. Promote information on the historical development of towns, villages, hamlets, farmsteads and their hinterlands and historic parks and gardens including historic maps and accessible online information. Promote improved design quality supported by the adoption of High Weald AONB specific design guidance on built form, architectural detail, composition and layout of space and local materials.	
Tranquillity	Ashdown Forest Woodlands Network of small fields	Tranquillity levels have declined significantly in recent years, with undisturbed areas having decreased from just more than 76 per cent in the 1960s to 44 per cent in 2007. The largest areas of tranquillity lie away from the main transport corridors (namely the M23 and main A roads) and the major settlements including Royal Tunbridge Wells, Hastings, Bexhill, Heathfield, Crowborough, Uckfield, East Grinstead, Crawley, Horsham and Haywards Heath. The pastoral, heavily wooded, medieval character of the landscape has a strong sense of tranquillity, accentuated by the traditional dispersed character of villages, sunken lanes, the wooded gills and intimate views, which together create a strong sense of timelessness.	Regional	The population surrounding the NCA is high (873,000 people live in wards wholly, or partly within 5 km of AONB and adjacent to areas of economic success (Crawley/Gatwick). Pressure for growth in south-east England generally in terms of housing and infrastructure also have an impact on the tranquillity of the area, although the AONB designation does help to alleviate this pressure in certain areas of the NCA. This context highlights the pressures on the NCA and the importance of the need for tranquil places to visit.	Maintain the tranquillity of the area and limit the visual impacts of large infrastructure through careful design and planning. Support for projects that contribute to the conservation and management of special qualities and locally valued features such as tranquillity and dark skies historic features such as abbeys and hop gardens.	**Tranquillity** **Sense of place/ inspiration** **Sense of history** **Biodiversity**

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Recreation	Public rights of way Access land Common land Coast	Recreation is supported by the area's 3,043 km rights of way network (with a density of 1.74km per km^2), including the Sussex Border Path, High Weald Landscape Trail and Weald Way, as well as a significant area of open access land totalling 1,938 ha (1.1 per cent of the NCA). Ashdown Forest is the largest free public access space in south-east England, lying at the heart of the High Weald AONB and a particularly popular and important recreational asset. Further significant recreational opportunities are provided by the area's reservoirs, with watersports and angling provided by the Ardingly, Weir Wood and Bewl Water reservoirs; the latter is the largest lake in south-east England. Hastings and Bexhill are popular seaside resort towns on the south coast.	National	Opportunities for access throughout the area in rural, coastal and urban green spaces is valuable for health and wellbeing, particularly mental health and provision is currently available through a network of green spaces and rights of way network. There is a need to increase the range and extent of access opportunities to better meet the needs and diversity of leisure users. Quality rights of way networks need to be prioritised in areas close to towns, villages, visitor attractions and within AONB rural tourism hubs and honey pot sites such as Ashdown Forest. Recreational activities within the NCA span a wide and sometimes conflicting range. From activities such as bird watching, walking, enjoying the views to more active ones such as mountain –biking, and rock climbing.	Maintain the current access network and create additional links, particularly those that relieve pressure on sensitive sites through a network of greenspaces and linear access. Explore opportunities to increase quality rights of way (ROW) networks in heavily utilised areas within the High Weald. Increase understanding and enjoyment through education and interpretation materials especially where this helps highlight the sensitive features of designated sites, ensuring that access balances recreational enjoyment with the protection of biodiversity, geodiversity and historic features. Develop and improve the quality of greenspace and rights of way to meet the demands and needs of locals and visitors alike Integrated management of the resources for informal open air recreation to facilitate 'green' use by residents and visitors. Promote sustainable tourism initiatives that target a broad range of visitors and where practical reduce car dependency and contribute to conserving and enhancing the landscape's biodiversity and tranquillity.	**Recreation** **Sense of place/ inspiration** **Sense of history** **Tranquillity**

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Biodiversity	Pevensey Levels Ramsar site Ashdown Forest Special Protection Area (SPA) and Special Area of Conservation (SAC) SSSI	This NCA has more than 33,400 ha of priority habitats, covering 19 per cent of the area. This includes 8,000 ha of woodland (wet woodland, lowland mixed deciduous woodland and lowland beech and yew woodland), 3,200 ha of lowland heathland, 850 ha of undetermined grassland and 570 ha of coastal and flood plain grazing marsh. The NCA contains 2 SACs, 1 SPA and 1 Ramsar site and 3 per cent of the area is designated as SSSI (5,400 ha). Ashdown Forest SPA and SAC is one of the largest single continuous blocks of lowland heath in south-east England including both dry and wet heath. Ashdown Forest is an SPA because it supports bird populations of European importance. Hastings Cliff is designated an SAC for vegetated sea cliffs of the Atlantic and Baltic coasts types.	International	The majority of the designated habitats are in favourable condition. With a landscape of rolling hills, woodlands and field systems that date back to Anglo-Saxon times, the High Weald is home to several kinds of grassland butterflies including the common blue, dingy skipper, and small copper. Bumblebees, moths, and hoverflies are among important pollinators feeding here and the barn owl, green woodpecker and skylark are often seen. Bats, voles Dartford warbler, nightjar, lapwing and hedgehogs are among the wide variety of species contributing to this area of high biodiversity. The NCA has existing high levels of ecological connectivity and porosity for many species associated with lowland pastoral landscapes. However, a decline in agriculture and woodland management together with access and recreation management could impact on habitat quality. Species-rich grassland creation and restoration using locally sourced seed has been prominent in the NCA but unimproved meadow sites remain at risk from neglect, lack of grazing, tree planting and ploughing. The over-shading effect of rhododendron combined with its dense, acidic leaf litter can pose a threat to ancient woodland particularly in gill woodlands which retain rich assemblages of vulnerable 'Atlantic' bryophyte species (mosses and liverworts), ferns and lichens. **Continued over...**	Enhance ecological networks, including the condition and connectivity of habitats along routeways for wildlife. Maintain extent and prevent further loss or degradation of unimproved grassland and heathland, increasing the favourability of designated sites but appropriately managing all sites and expanding, linking and buffering. Establish ecological habitat networks to assist vulnerable species such as heathland birds and lichens and bryophytes in parkland and on rocky outcrops adapt to climate change including connectivity beyond the AONB. Enhance, buffer and connect the High Weald habitats. Ensure that ecological networks also contribute positively to landscape character. **Continued over...**	**Biodiversity** **Climate regulation** **Pollination** **Sense of place/ inspiration** **Tranquillity** **Recreation**

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Biodiversity continued				**...continued from previous.** There is a need to maintain the routeway boundaries that form part of the habitat mosaic of the High Weald, to maintain this key component of what is a rare UK survival of an essentially medieval landscape, the network of existing hedgerows and hedgebanks make an important contribution to the connectivity of habitats and should be managed to maintain their structure and condition. Degradation of unimproved grassland and heathland can have lead to further habitat loss and have a wide range of implications on wildlife. Dispersed settlement patterns provide benefits to species such as birds and bats through the repair restoration and conversion of buildings. Improved ecological habitat networks could provide better conditions for vulnerable species such as heathland birds. Parklands and rocky outcrops could provide better habitats for lichens and bryophytes.	**...continued from previous.** Explore opportunities for working with landowners to ensure sympathetic management of semi-natural grasslands such as mowing for hay, low intensity grazing by livestock, or a combination of both management techniques as appropriate. Encourage opportunities that provide wildlife benefits such as for bird boxes and bat roosts through the repair, restoration and conversion of buildings. Control invasive non-native species to prevent or reduce damage to native species populations and habitats.	

Service	Assets/ attributes: main contributors to service	State	Main beneficiary	Analysis	Opportunities	Principal services offered by opportunities
Geodiversity	Rock exposures Sea cliffs Wealden anticline	There are 17 geological Site of Special Scientific Interest and 3 mixed interest SSSI. There are 38 Local Geological Sites within the NCA. A complex sandstone and heavy clay landscape, with a combination of ridges and steep sided valleys. Hastings Cliffs are nationally important for geology and geomorphology, making it important to maintain and observe natural processes. The coastal geomorphological processes are also of considerable importance and demonstrate a naturally functioning coastline.	National	The geological sites provide important access to geodiversity, enabling the interpretation, understanding and continued research into the geodiversity of the NCA. Exposure of these features also makes a positive contribution towards sense of place and sense of history. There is a need to manage the geological features appropriately to avoid the potential degradation and loss of oceanic communities of ferns, mosses, liverworts and lichens found on Sandrock and which are dependent on a mild and moist microclimate.	Maintain views of and access to geological features and exposures and where appropriate, improve access to cuttings, quarries and other exposures of geological features to enable improved understanding and enjoyment of geodiversity and sense of history. Further understanding and appreciation of sandrock exposures to help reduce threats and or inappropriate use and management. Maintain the nationally important sandrock exposures to conserve the fern, moss and liverwort communities they support and to protect their value as some of the most significant sites of prehistoric archaeology in the area. Maintain natural geomorphological processes, particularly along rivers and the coast that contribute to the regulation of coastal flooding. Maintain and enhance all existing rock exposures and natural land forms that are important for understanding the origin and geological development of the High Weald. Work to secure geological conservation as an integral part of the development process.	**Geodiversity** **Sense of place/ inspiration** **Sense of history** **Biodiversity** **Water availability** **Regulating water flow**

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NATURAL ENGLAND

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