

Countryside Character
Volume 7:
South East & London

*The character of
England's natural and
man-made landscape*

Wealden Greensand



Key Characteristics

- Large belt of Greensand typified by its scarp/dip-slope topography and by extensive belts of ancient mixed woodland of hazel, oak and birch together with more recent coniferous colonisation and plantations.
- Large sections of the winding Upper Greensand escarpment are noted for their steep 'hanger' woodlands with areas of remnant heath and wet heath.
- Settlements are generally scattered villages and hamlets linked by deep, overhanging, winding lanes with some small, irregular fields remnant of Saxon clearances.
- The Wealden Greensand in Hampshire and West Sussex comprises areas of high ground supporting a mosaic of open heath, beech/ash or oak/hazel/ash wooded hangers – or pine forest in Sussex – and rough grazing. There are broad river valley plains which support arable farming on light soils with large geometric fields.
- In the western Surrey area, the Wealden Greensand is flat with much heathland and former heathland. Towards the east, the slopes become steeper and are generally densely wooded with an extensive oak/birch/pine cover, numerous small woodlands and also 18th century conifer plantations. Farming is predominantly mixed with dairy pastures in small irregular fields with well-maintained hedgerows and shaws. The latter give a wooded feel to the area.
- In east Surrey and western Kent, there are many wooded commons ('charts') with oak/birch woodland.
- Tree-lined winding sunken lanes connecting small settlements built of sandstone or malmstone and the overall undulating and organic land form combine to give a sense of intimacy to the landscape.

- In the east of Kent, the Wealden Greensand has a gentler and more open aspect than the wooded west. This part of the area is also more marked by development with the presence of major towns and communication corridors such as the M26/M25/M20 and railway lines.
- Fruit growing is still a characteristic feature of the Kent Greensand.
- Older deer parks and more recent 18th century parklands are a distinctive feature of the Wealden Greensand with extensive views out over the Low Weald.

Landscape Character

This long, curved belt runs across Kent parallel to the North Downs and through Surrey, moving south to adjoin the Hampshire Downs before curving back eastwards to run parallel with the South Downs in West Sussex. Its local character varies as a result of changes in local topography, soils and land use but it is unified throughout the area as a result of underlying geology, scarp/dip-slope topography and the distinctive springline settlements below the Downs.



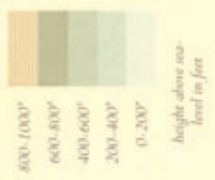
JOHN TYLER/DOWNS CONSERVATION BOARD

Rural cottages display the estate colours.

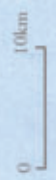
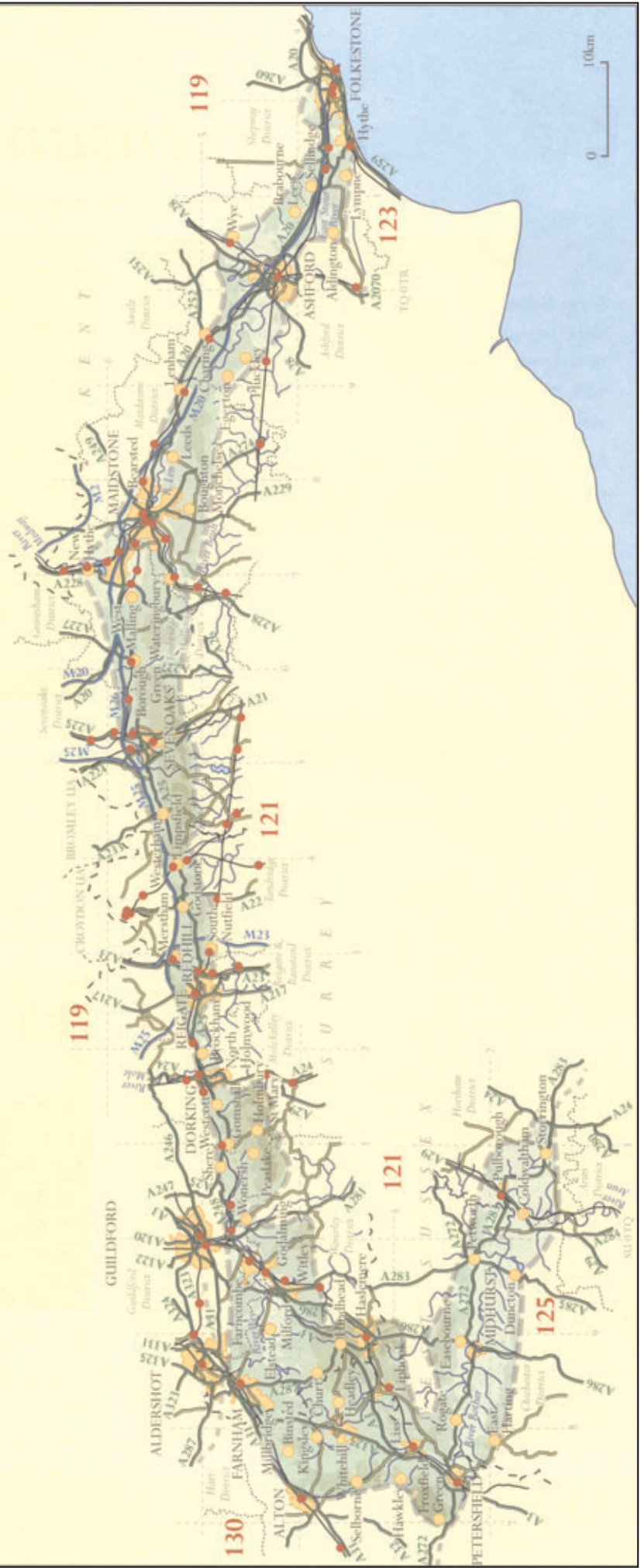
Extensive belts of woodland, both ancient mixed woods of hazel, oak and birch and more recent coniferous plantations, give the area a well-wooded feel in many



Character Area 120 Wealden Greensand



- Area 120 boundary
- Adjacent Area **121**
- Motorway
- A Road
- B Road
- Railway and station
- County boundary
- Unitary Authority
- District boundary



places. The dramatic 'hangers' of East Hampshire are a dominating local influence, within the Wealden Greensand. Contrast is provided by more open areas of sandy heath and wet heath found on the acidic soils, by the rivers and also by the mixed farming found throughout the belt.



JOHN TYLER/COUNTRYSIDE AGENCY

Wooded slopes form the backdrop for pasture valley bottoms with tree lined rivers.

To the west in Hampshire, Sussex (and west Surrey), the Greensand forms an intimate landscape with a diverse character. Landforms of the western Wealden Greensand vary from the more-or-less parallel sandstone ridges to the dramatic and steep scarp slopes and the rounded clay vales containing river valleys with broad plains. This variety is evident for example, in the Upper Greensand bench at the foot of the Downs in Hampshire. The small pasture fields and linear woodlands of the ridges give way to larger and more regular field patterns where the Greensand merges into the Gault clay. This arable landscape of large geometric fields is encouraged by the light fertile soils of the river Rother plain which cut through the sandstone. It provides a local contrast with the more intimate nature of the sandy soils dominated by small pasture fields. These sandy soils on the higher ground support some extensive heathland. The area is a mosaic of open heath (with some pine encroachment), beech/oak woodland and rough grazing. A few areas of high quality heather heath remain, such as at Iping Common. Other areas of former heath have reverted to rough grazing or have been planted with conifers. Sand and sandstone are quarried and exposed on the Lower Greensand ridges below which springs, fed by the sandstone aquifer, occur at fairly frequent intervals.

A notable feature of the southern arm of the Wealden Greensand is the extensive Northlands of West Sussex, in particular those associated with the river Arun and Amberley Wildbrooks where the water levels are

controlled by sluices and the flat, treeless landscape is given vertical interest by the numerous reed-filled ditches.

Further north and east from Hampshire into Surrey, the slopes become steeper and are typically densely wooded; the steep 'hanger' ash or beech woodlands, of East Hampshire being a locally dominating feature. Some of the woodlands are of oak/birch/pine but there are also conifer plantations which introduce harsh lines into an otherwise undulating and unstructured landscape. There are many small woodlands scattered through the area. Farming is mixed, with a high proportion of dairying. Hedgerows are in good condition and mark the boundaries of the small irregular fields.

The intimate, almost secretive, feel of much of the west of the Wealden Greensand (that is Hampshire, Sussex and west Surrey) is reinforced by the deep stream-cut gulleys and tree-lined winding sunken lanes leading to small settlements built of sandstone, or more locally, malmstone. Even the larger settlements retain a link with the landscape, not least through the use of local building materials.

This mixed intimate character continues across Surrey with woodland cover increasing. This is the most wooded part of the area with a high proportion of ancient mixed wood. Much of the woodland is, however, the result of conifer plantations on former heathland. Open heath is left only on commons such as Reigate Heath or at Frensham. Wooded commons known as 'charts' are a characteristic feature of this part of the Greensand as it moves into western Kent where the wooded topography intensifies and is particularly dramatic. Besides the woodland, the Surrey Greensand is characterised by open rolling farmland. In the south a traditional farmscape of small fields and thick hedgerows is retained. On flatter land, however, arable use is more common resulting in a loss of typical character. Some of the farmland in this heavily populated area is given over to small holdings and pony paddocks which can appear scruffy and unkempt, particularly where hedgerows are damaged and replaced with wire fences. The main river valley is the river Wey which cuts a broad watery plain with open meadows and typical waterside vegetation, including willow and alder. The Surrey Greensand is particularly important for recreation, as it is easily accessible from London and many of Surrey's major towns. The overall landscape, although mixed, is unified by the wooded character engendered by the many woodlands and shaws. In many areas the settlements and gardens bring a suburban feel and some smallholdings can often appear out of place, This can sometimes diminish the more natural character but provides contrast and variety within the landscape.

Further east, into Kent, and beyond the dramatic wooded topography, the Greensand becomes less distinctive. Although sunken lanes and hidden valleys are a feature of

the area around Sevenoaks and Maidstone, the landscape here, being less wooded, does not give such an impression of intimacy unless contained by remaining hedgerows and shelterbelts. The area is also more marked by modern human influence with major towns such as Maidstone, Sevenoaks and Ashford and numerous communication routes. Notable among the latter are the M25 and M26 near Sevenoaks and the M20 and rail lines around Ashford which follow the vale below the North Downs scarp. Generally the Kent Wealden Greensand in the east has a sandy and heathy feel and the landscape is relatively more open with mixed farming. The central area of the belt near the Medway, where lighter loams occur, is a major fruit growing area with orchards and associated windbreaks, plus chestnut coppice for hop poles. These introduce a more regular pattern of straight lines into the landscape. Hop growing is particularly common around Maidstone. Further east, however, both orchards and hops are being replaced by arable fields which are often irregular in shape reflecting the changes in landform. At its south eastern extreme the Greensand forms a notable scarp, formally a sea cliff, giving extensive views over Romney Marshes. Panoramic views across the Low Weald are frequent and extensive from the Greensand ridge above the scarp face.



JOHN TYLER/COUNTRYSIDE AGENCY

Designed parkland is a common feature within the greensand. Much of it is threatened by fragmentation through lack of appropriate management.

Physical Influences

This region includes the outcrops of Upper Greensand, Gault and Lower Greensand. In general terms the Upper Greensand and Lower Greensand form escarpments, separated by a clay vale formed on the Gault Clay.

The wide range of lithologies, from clay to sandstone in close proximity, give rise to many localised variations of

land use, and woodland cover. The soil ranges from poorly-drained alkaline over the Gault to free-draining acidic over the Folkestone Beds.

In the west, below the chalk escarpment of the North Downs, a low bench of Upper Greensand at the foot of the chalk escarpment is deeply incised in places by springline streams. Further away from the chalk escarpments, Gault Clay lowlands give way to the Lower Greensand rocks which include Folkestone Beds, Sandgate Beds and Hythe Beds. The coarse-grained, acidic and free-draining Folkestone Beds form a broad escarpment often associated with tracts of heaths and commons. The Sandgate Beds which give rise to heavier and wetter soils are often dominated by pasture. Major rivers such as the Rother flow in narrow alluvial floodplains across the easily eroded Sandgate Beds. The most elevated and steeply undulating relief is formed by the resistant calcareous sandstone (known as ragstone) of the Hythe Beds which form the main part of the escarpment. They support lime-tolerant plant communities in the otherwise generally acidic soil conditions of the Greensand region.

Areas of soft sandstone are easily eroded producing distinctive sunken lanes in the Greensand, cut deeply into the rock below the surrounding land surface. These lanes are historical and characteristic features of the landscape and are also used as part of the modern road system.

In contrast to the North Downs, surface water is an important feature on the Greensand. Streams and rivers drain off the dip-slope and there are many flooded quarry workings which are commonly hidden by trees from distant views.

Historical and Cultural Influences

The Wealden Greensand has been occupied since earliest times. Evidence of early occupation at Oldbury Hill in Kent is provided by the presence of palaeolithic flint tools and, at Abinger, traces of a neolithic hearth from c5000 BC suggest that this could be the oldest village in England!

Bronze Age tumuli are evident near Petersfield and are common on the higher ground of heathlands in Sussex. Iron Age forts exist, for example at Holmbury, Anstiebury and at Oldbury Hill. The Pilgrim's Way prehistoric track of the North Downs runs parallel to the Greensand and is closely associated with these features.

In contrast to the winding, eroded, sandstone lanes of the wooded west, Roman roads radiate from Canterbury to Ashford and Lympne and thence to Maidstone.

The Wealden Greensand area has significant woodland and estate parkland. The former has always been diverse, the lighter heathy soils of areas like Leith Hill having been planted with conifers and the heavier soils supporting



Walkers get a sense of seclusion walking along the sunken lanes and overgrown paths.

coppice and mixed woodland. There has been a considerable reduction in the amount of heathland since the 19th century.

The woodland provides a backdrop to the many landscaped parks of the area and has been used by designers such as Capability Brown to frame 18th and 19th century landscapes. Petworth in Sussex, Knole, Squerries Court and Leeds Castle in Kent are particular examples of the genre, together with Albury Park designed by John Evelyn, the 'father of silviculture' and many smaller gardens influenced by Jekyll and Lutyens. Artists such as Samuel Palmer, who had links with the Darent Valley, reflected the area in their paintings and Gilbert White, at Selborne in Hampshire, created his own small-scale designed landscape at his home using the dramatic hanger woodlands as his backdrop.

There are numerous quarries for local distinctive building stone, Ragstone or Bargate Stone and there is a history of disturbance to the landscape through mineral and sand abstraction. Other industry has concentrated along the river

valleys with the use of water power and charcoal. Iron workings, based on the local occurrence of ironstone, used Wealden timber and the associated hammer ponds are plentiful along the foot of the northwest escarpment. Water mills and some windmills were a source of energy and industry in the Tillingbourne and Rother Valleys.

Prosperity arrived in the 19th century with improvements in road and rail travel, turning much of the northern segment of the Wealden Greensand into a commuter belt. Original communication links ran in a strong east-west alignment along the lighter soils and ridge lines. North-south links remain relatively poor, whilst east-west links have strengthened. The south-east railway connected London to Dover in 1844 and subsequent links through the M20 and M26 have reinforced this particular transport corridor.

Small settlements are dispersed throughout the western and south western segment of the character area, linked by historic, sunken lanes. Rural buildings are typically of local

tile-hung ragstone or malmstone. Continued building has left a scattering of modern houses and large gardens, introducing urban influences into rural areas.

Buildings and Settlement

In the eastern Greensand, timber-framed buildings are a feature of the local landscape, as is weatherboarding. Many of the typical Greensand cottages and houses date from the 17th century or earlier. They typically have walls of tawny-brown sandstone, laid in rubble courses, often patterned by tiny pieces of dark carrstone in the mortar between the stones. This process known as 'galletting' was imitated in the late 19th century Arts and Crafts houses which also have elaborate large chimneys and intricate corner and window details of tile creasing.

Large houses set within extensive gardens are also found all over the Greensand. The gardens, often extensively wooded, screen the houses from view and contribute to the general impression of dense woodland.

The Hythe Beds provided hard stone for local buildings whereas the Folkestone Beds are a source of sand used in building. This has resulted in numerous quarries which are visible from elevated viewpoints. Malmstone and hearthstone in the Upper Greensand have also been quarried for building stone in East Hampshire. The Hythe Beds provide hard building stone in the form of ragstone or bargate stone which is extracted from numerous quarries particularly visible from the North Downs scarp. This stone is a distinctive feature of local buildings in Kent and significant in Surrey, particularly in rural areas.

Much of the eastern linear Greensand belt is heavily dominated by modern developments including substantial urban settlements, major road and rail networks and other forms of economic activity.

Land Cover

Away from the Gault Clay, the Wealden Greensand is generally noted for its cover of broadleaved and coniferous woodland within a network of pasture with hedgerows, arable land and heathland.

The diversity of soils is reflected in a similar range of woodlands. On the Gault clay there are semi-natural ancient woodlands which were formerly, traditionally managed woods. Oak standards and birch are prevalent on the lower Greensand while ash and hazel dominate the gault clays and upper Greensand with dogwood, elm, some small-leaved lime and sycamore, some oak and a diverse ground flora. Banks and ditches are frequent in these woods, together with occasional large ash stools, all evidence of the wood's age. Where the soil becomes more acid, holly, hawthorn, bramble and bracken begin to be found.

The outcrops of the Folkestone Beds produce more acidic sandy soils and the woods are generally oak and birch, associated with former heaths. Other species such as Scots pine, sweet chestnut, holly, rowan, hawthorn, bilberry and elm are also present. In all woods, wetter areas have willow and, to a lesser extent, alder, with ash, hawthorn, oak, hazel, birch and nettles.

The character and content of hedges also, to some extent, reflects their soils. On the Gault clay, hedges tend to be species-rich: dense at the base, they occasionally, have a few oak trees distributed along their lengths. On more acidic soils hedges have fewer species and often consist of only blackthorn or hawthorn. These are dense and trimmed low, with occasional oak trees, but are sometimes gappy. Without management, these hedges have grown into lines of tall shrubs, often comprising belts of ash, sycamore, oak, hawthorn or hazel hedgerow trees. Few hedges and unstructured fields is the pattern discernible in the north-west of Sussex where small rough pastures are used for horse grazing.

Ancient semi-natural woodland on the Wealden Greensand survives mainly on river valley, floors and on steep slopes. Ancient woodland is scarce on the Greensand plateau itself. These woodlands on the steep slopes of the scarp in the west of the area, comprise the hangers landscape for which the Greensand is renowned. The wooded commons (charts) of Kent and Surrey are also known local landscape features and can be considered ancient woodland.

Up to the early 20th century the area was much more open with extensive heathland but new conifer plantations and scrub invasion on a wide scale have reduced the area of heath. Forestry plantations are a dominant land use within the Greensands, significantly contributing to the overall wooded character.

Traditional agricultural practices in the area include the fruit growing orchard belt where fields are separated with alder and poplar windbreaks. Recent conversion to arable farmland has reduced this area. Hops and chestnut coppices producing hop poles are also traditional of the area. Mixed farming, permanent pasture and arable farming is seen amongst the woodlands, commons and heaths. It is a zone of medium- and small-sized irregular fields and enclosed strip fields with a diminished hedgerow component.

The Changing Countryside

- Loss of heath; open heathland commons are compromised by encroaching birch, oak and pine scrub due to a decline in traditional management regimes which eventually obscures the characteristic open views from tops of hills.
- Past planting of conifers in ancient woodland has altered the character of these important features.

- The visual intrusion of mineral extraction operations has significantly affected certain parts of the Greensand – for example, sand extraction above Seale is very prominent when viewed from the Hog’s Back in the adjacent North Downs character area.
- Old landfill sites within former sand pits do not enhance the local landscape.
- Loss or neglect of traditional woodland coppice, fruit orchards and hedgerows.
- Localised damage from the 1987 storm.
- Potential landscape impacts arising from the development of the Channel Tunnel High Speed Rail Link and motorway widening schemes.
- Former commons and heaths associated with large military establishments have been to some extent protected from pressures often associated with public access and agricultural intensification. However, in other areas, military land use has resulted in significant landscape change.
- Fragmentation and degradation of designed parklands.
- General degradation of major river-floodplain landscapes.
- New roads and improvements often lead to the erosion of the enclosed and winding character of the local road network.

Shaping the future

- There are opportunities for the restoration of heathland by scrub and tree removal. Land, formerly, owned by the Ministry of Defence, may provide scope for increased conservation of heaths.
- The conservation of woodlands, fruit orchards, hop gardens and traditional coppice should be addressed.

- The sensitive design, layout and routes for major communications development is important within the character area.
- Many existing mineral extraction sites and landfill sites in former sand pits need assimilating into the landscape.
- The enhancement of hedgerows and other features needs consideration through appropriate agri-environmental land management schemes.
- Many historic and designed parklands are in need of restoration.

Selected References

- Kent County Council (1993), *Landscape and Nature Conservation Guidelines*, Kent County Council, Maidstone.
- Dipper, S (1995), *Landscape Assessment of West Sussex – Section 1*, West Sussex County Council, West Sussex.
- Countryside Commission (1991), *The East Hampshire Landscape CCP 358*, Countryside Commission, Cheltenham.
- Landscape Design Associates (1995), *A Landscape Assessment of the Sussex Downs AONB*, unpublished.
- White, J T (1977), *The South-East Down and Weald: Kent, Surrey and Sussex*, Eyre Methuen, London.
- University of Sussex, The Geography Editorial Committee (1983), *Sussex: Environment, Landscape and Society*, Alan Sutton, Gloucester.

Glossary

hanger: a wood on the side of a steep hill

shaws: strip of trees or bushes forming the border of a field

Low Weald



Key Characteristics

- Broad, low lying and gently undulating clay vales underlie a small-scale intimate landscape enclosed by an intricate mix of small woodlands, a patchwork of fields and hedgerows.
- Topography and soils vary locally in relation to higher drier outcrops of limestone or sandstone, which are commonly sites of settlements.
- The Low Weald generally includes an abundance of ponds and small stream valleys often with wet woodlands of alder and willow.
- Tall hedgerows with numerous mature trees link copses, shaws and remnant woodlands which combine to give the Low Weald a well-wooded character. Field trees, usually of oak but now declining, are characteristic of the area south-east of Dorking.
- Grassland predominates on the heavy clay soils while lighter soils on higher ground support arable cropping in a more open landscape.
- Rural in character with dispersed farmsteads, small settlements often include many timber and brick-built traditional buildings where not now dominated by recent urban development.
- Historic settlement pattern was dictated by a preference for higher drier outcrops of limestone or sandstone with moated manor houses being a characteristic feature.
- Urban and airport related development sprawl in the flat plain around Gatwick, and in the Horley-Crawley commuter settlements, contrast with the pleasant, wet, woody, rural character of the area and as such are less distinctively Wealden.
- Hop growing and orchards are still a distinctive land use in the east.
- The Kentish Low Weald is traversed by numerous narrow lanes with broad verges and ditches; these are continuous with the drove roads of the North Downs.

Landscape Character

The Low Weald is a broad low-lying clay vale which runs around three sides of the High Weald through Kent, Sussex and Surrey, bounded for much of its length by the Wealden Greensand. Topography and soils vary with higher drier pockets of land on the outcrops of limestone or sandstone - which are commonly the sites of settlements - within the often flat and wet soils of the vale.

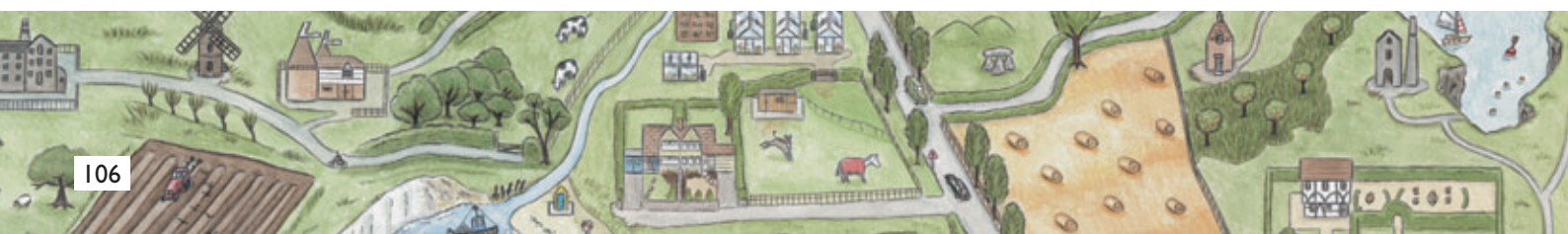


MARTIN JONES/COUNTRYSIDDE AGENCY

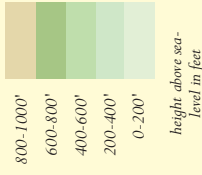
Many small towns and villages have been targeted for new housing development. Much is being constructed to national standards and has little in common with local characteristics.

The area is well-wooded, with many of the fields created by woodland clearance. It is also rich in ponds and small streams with riparian willows and alders reflecting its wet nature. Ponds are also evidence of a history of brickmaking, marl pits and the iron industry. Where major river valleys, notably the Arun, Adur, Beult and Medway, cross the Low Weald this wet character is accentuated by wet grazing lands with willow and sallow scrub. The Adur in particular has extensive wetland habitats in this character area, including marshes with water levels controlled by complex sluice systems.

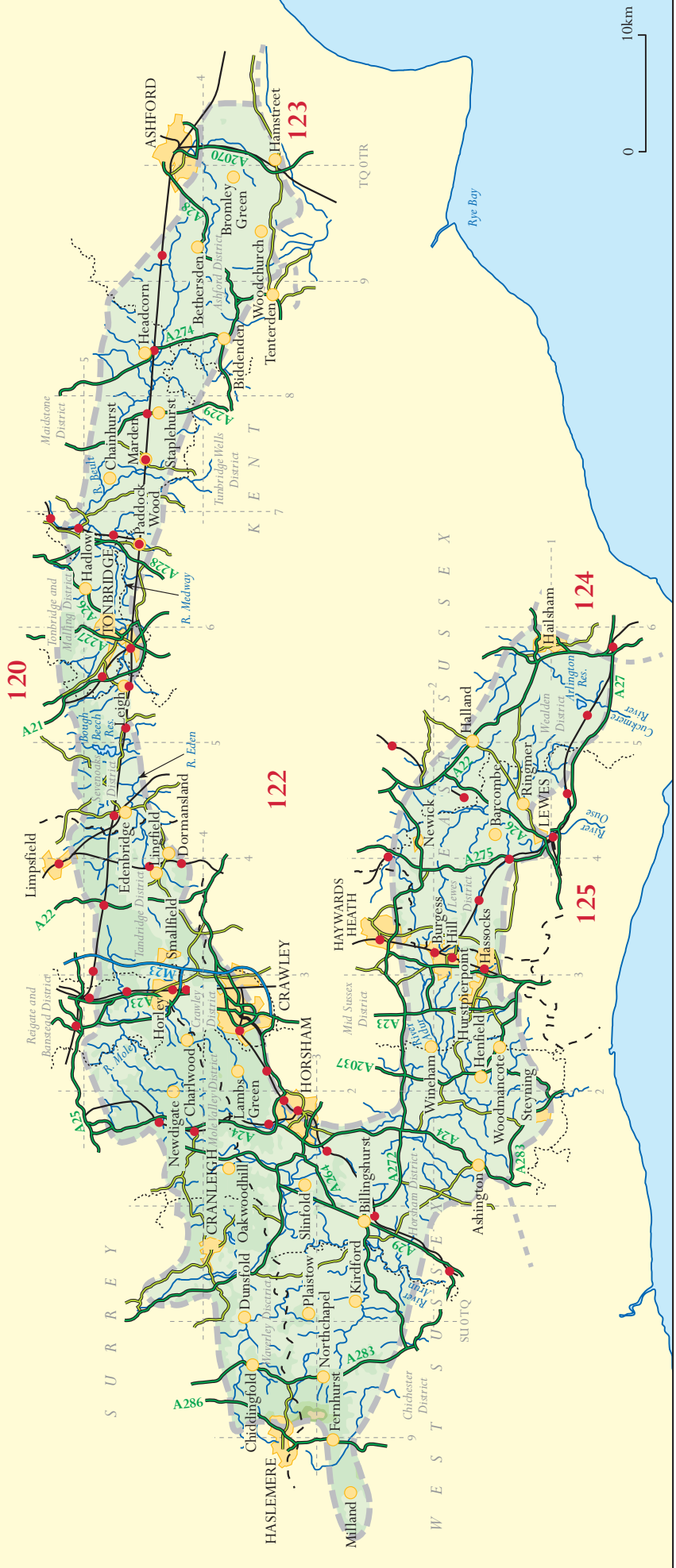
Hedgerows are tall with many mature trees and run between small copses of oak and birch. Chestnut and hornbeam coppice is also frequent, in many places a relic of the Low Weald's industrial history of charcoal burning for iron and glass production. The area is also characterised by remnant



Character Area 121 Low Weald



- Area 121 boundary
- Adjacent Area
- Motorway
- A Road
- B Road
- Railway and station
- County boundary
- District boundary



strips of cleared woodland or 'shaws' which combine with the generally small, densely hedged field enclosures to enhance the woody nature of much of the vale. Other parts of the Low Weald to the south-west, in Sussex for instance, are often more open and exposed in character.



MARTIN JONES/COUNTRYSIDE AGENCY

Traditional orange-red brick and tile hung buildings reflect the use of local Weald clays and provide vivid contrast with rich green vegetation.

Agriculture in the Low Weald is largely pastoral due to the heavy clay soils with either forage or grazed grassland. However, where there are lighter soils on slightly higher ground a more mixed farming is found, including arable and fruit growing on the drift deposits of brickearths in Kent. Arable cropping is often associated with larger fields, a much more sparse hedge pattern and fewer trees in contrast to the characteristic well-wooded pastoral appearance of the Low Weald.

Much of the Low Weald is essentially, rural in character and has a pleasant wet woody character. Settlements are mainly villages or small hamlets and usually built of brick reflecting the use of local Weald clays, or more locally (as at Horsham) of stone for roofs, providing islets of very local character. Timber-framed buildings are common at the eastern (Kent) end of the Weald, with oast houses and weather-boarding in the fruit and hop growing areas close to Romney Marsh.

The most notable variation in the Low Weald character is provided by the contrast of the urban and airport sprawl in the flat plain around Gatwick, including the Horley-Crawley area. The natural character of this area is flatter and less-wooded, ie less distinctively Wealden, and the airport and associated road and rail developments have destroyed its rural feel. Major settlements at Crawley and Horley have resulted in suburban sprawl within the rural character of the Low Weald.

The clay soils produce rich green grassland and woodland vegetation which provide a vivid contrast to the intense orange-reds of the locally produced Wealden clay bricks characteristic of many of the Low Weald villages.

The well-wooded character restricts many views within the area although even small rises in terrain permit longer views. Parts of the Low Weald have an unusual remote quality, especially in Kent. Elevated landforms outside the character area such as the Wealden Greensand, the North and South Downs and the High Weald form important backdrops in many views.

Physical Influences

The Low Weald area coincides with the outcrop of the Weald Clay, below the irregular escarpment of the Greensand belt and the Chalk. It gives rise to a broad vale that is typically lowlying and undulating, rarely, exceeding more than 30 m - 40 m AOD, with many areas as low as 15 metres. Towards the south, the undulations become rolling and larger in scale.



STEPHEN DAVIS

Carpets of bluebells are typical of the significant areas of semi-natural woodland. The characteristic oak standard over hazel coppice reflects past management.

Localised deposits of limestone and sandstone form gentle ridges and high points throughout the Low Weald. In many places, these are the sites of farmsteads, hamlets or larger settlements. The Weald Clay produces heavy, poorly-drained soils which are nutrient-poor and are largely used as pastureland, with arable crops less common. Drift deposits of brickearths in the Kent area give rise to good quality soils suitable for hop and fruit growing. It also supports a prosperous brick and tilemaking industry, producing a wide range of bricks from numerous sites. As the deposits extend to deep levels, surface disturbance and visual impact caused by excavations are relatively minimal.

The Low Weald is heavily dissected by river floodplains and many small, narrow and commonly sunken streams cut into the heavy clays locally forming flat lowlying areas, such as the plain around Gatwick. Ponds are frequent on the edges of fields and in woodlands although they tend to be small and are often silted up. Some are the result of past quarrying for brick-making, marl pits or the early iron industry. Much of the area is subject to localised flooding.

Historical and Cultural Influences

A Roman iron industry that once thrived in the Low Weald was revived from the late 15th century. It left old hammer ponds, which are now valuable archaeological and wildlife sites, and has also ensured the management and survival of large areas of woodland.

The wild and wooded appearance of the Wealden area led the Romans to call this area *Sylva Anderida* which the Saxons later amended to *Andredswald*. Deforestation in subsequent centuries, mainly for shipbuilding and charcoal smelting, has left only remnants of the original wood in existence today. The Low Weald retained a high woodland cover until Domesday, when about two-thirds of the area was still wooded. Clearance was very piecemeal, often leaving belts of wood known as 'shaws' between fields. Today many fields are still bounded by these shaws while other fields are formed from cleared land along woodland edges (assarts), typically resulting in woods with very irregular shapes. This led to the characteristic settlement pattern of small hamlets and ancient farmsteads. Many hedges may also have originated as remnant woodland strips as reflected by their often species-rich composition, including ancient woodland indicator species.

The Low Weald has inspired poets such as Edmund Blunden and 20th century, artists such as Rowland Hilder. The Low Weald landscape is also the setting for H E Bates' *Larkin* books dramatised as *The Darling Buds of May*.

Buildings and Settlement

Owing to the original wooded nature and heavy clays of the Low Weald, settlements tend to be very small and scattered and are often just linear groups of houses along roadsides following transport corridors through the Weald. Many villages are centred on greens or commons. The majority of rural buildings are traditional in character with the common use of local brick weatherboarding and tile-hung buildings. Older houses are half-timbered, locally with slate roofs. The muted colours of the soft grey of the timber, the gentle ochre or white-washed walls and the massive greeny-grey stone tiles (Horsham slabs) provide contrast with the greens of their rural settings. Black weather-boarded barns with half-hipped roofs are also common features.

Although many lanes are narrow and enclosed between hedges, with occasional views from gateways, the poor ground conditions for early travellers resulted in broad trackways to allow horse-drawn vehicles to avoid water-logged areas. This is still reflected today, in the many country roads with wide verges and attendant ditches that cross the area.

Land Cover

The heavy clay soils are notoriously difficult to cultivate so that permanent pasture is the main farming use. Arable farming is associated with the lighter soils on higher ground and there is fruit farming in the east in Kent. Fields are generally small and irregular, divided by a dense network of hedges and shaws that create a small-scale landscape, except where hedges have been removed. Occasional lines of single trees mark out vanished field hedges while small copses and tree groups frequently occur within the fields and as part of the hedgerow pattern. Hedges are generally species-rich with oak, ash, field maple and holly also occurring as hedgerow trees. Many of these hedges typically occur as low, square-cut or tall, uncut hedges. Many were still woodland strips as recently as the late 19th century.

The extent of woodland cover varies depending on the original level of clearance for agriculture, yet a good deal remains. Broadleaved woodland is common and significant areas of semi-natural ancient woodland occur, particularly below the Wealden Greensand. The ancient character of many woods is reflected by their large coppice stools, banks and ditches. Oak is the principal tree of the Low Weald and the characteristic woodland often has oak standards over hazel coppice. Areas of base-rich soil on limestone outcrops support ash with field maple and hazel. In addition to these woodland types there are pockets of older coppice with mosses and sedges often invaded by birch. Coppiced woodland varies between chestnut, hornbeam or hazel, with goat willow, hawthorn and holly as shrub species. Shaws are remnants of more extensive woodland and therefore have similar species and have often been managed in similar ways. For example, the wider shaws are often coppice, with standards.

The courses of the many small rivers and streams that meander across the Low Weald are marked by numerous riparian trees. In many cases, the ponds, unimproved permanent pastures, road verges, small rivers and streams of the Low Weald are habitats of high value for nature-conservation.

The Changing Countryside

- Urban influences have affected many large parts of the rural area, especially around Gatwick Airport and Horley, owing to the accessibility and popularity of the character area.
- Development pressure is focused mainly on the towns and the area on the boundary between the Low Weald and the High Weald (an Area of Outstanding Natural Beauty).



JOHN TYLERSUSSEX DOWNS CONSERVATION BOARD

Views from the South Downs show the low lying gently undulating Low Weald with its mosaic of pasture, arable and mature woodland linked by hedgerows.

- Continuing creeping fragmentation of farmland around houses into gardens or pony paddocks, sometimes with conifer hedges.
- Past pressures on ancient woodland arising from past conversion to conifer plantations, damage through neglect, and/or damage through old consents for the working of clay pits.
- Loss and decline of hedges and hedgerow trees, and consequential fragmentation of landscape structure, due to lack of management and farm diversification.
- Riparian landscapes under pressure from decline and neglect, including loss of farm ponds, as agricultural practices have intensified.
- Loss of traditional hop gardens, orchards and associated wind-break features.

Shaping the Future

- Conservation of characteristic shaws, ancient woodlands and coppice should be considered.
- New woodland planting of shaws and hedgerows would help integrate existing and proposed developments.
- The conservation of farm woodlands, riparian landscape features and ponds would be beneficial.
- The retention of the character of rural lanes is important.
- The restoration, conservation and re-creation of hedges within the Low Weald, including new planting of hedgerow trees, would improve the landscape structure.

Selected References

- White, J T (1977), *The South-East Down and Weald: Kent, Surrey and Sussex*, Eyre Methuen, London.
- Kent County Council (1993), *Landscape and Nature Conservation Guidelines*, Kent County Council, Maidstone.
- Brandon, P (1970), *The Sussex Landscape*, Hodder and Stoughton, London.
- Surrey County Council (1994), *The Future of Surrey's Landscape and Floodlands Part 1: An Assessment (Consultation Draft)*, Surrey County Council.

Glossary

AOD: Above Ordnance Datum

islet: little island or small piece of land markedly different from its surroundings

shaws: strip of trees or bushes forming the border of a field



STEPHEN DAVIS

Damp grassland is characteristic of the whole area, occurring on poorly drained heavy clays. Where the land has not been agriculturally improved, species such as green winged orchid and meadow saxifrage can be found. The densely hedged fields enhance the wooded character of the area.

South Downs



Key Characteristics

- Prominent Chalk outcrop rising gently from the South Coast Plain with a dramatic north-facing scarp and distinctive chalk cliffs formed where the Downs end abruptly at the sea. A chalk landscape of rolling arable fields and close-cropped grassland on the bold scarps, rounded open ridges and sculpted dry valleys.
- Lightly settled landscape with scattered villages, hamlets and farmsteads – flint is conspicuous in the buildings, walls of villages, farms and churches.
- Roman roads and drove roads are common and characteristic features and the area is rich in visually prominent prehistoric remains, particularly Neolithic and Bronze Age barrows and prominent Iron Age hillforts.
- In the east, rivers from the Low Weald cut through the Downs to form river valleys and broad alluvial floodplains with rectilinear pastures and wet grazing meadows – a contrast with the dry uplands. Above these valleys, the high, exposed, rounded uplands of white chalk have a simple land cover of few trees, an absence of hedgerows, occasional small planted beech clumps, and large arable areas and some grassland.
- The eastern Downs have a distinctive escarpment which rises prominently and steeply above the Low Weald. It is indented by steep combes or dry valleys.
- Woodlands – both coniferous and broadleaved – are a distinctive feature of the western Downs.
- In the west, large estates are important features with formal designed parkland providing a contrast to the more typical farmland pasture.

Landscape Character

The South Downs are a long prominent spine of chalk which stretches from the chalk downland of Hampshire, eastwards across West Sussex until it is sheared off at precipitous coastal cliffs in East Sussex. The steep, northward-facing

chalk escarpment of Sussex overlooks the patchy mosaic of fields, woods and heathlands of the Low Weald and, further west in Sussex, the Wealden Greensand. The western edge of the Downs flows into the chalk of the Hampshire Downs and, to the south, the Downs dip giving way to the narrow wedge of coastal plain and farmland which separate them from the English Channel.



JOHN TYLER/DOWNS CONSERVATION BOARD

The white cliffs of the Severn Sisters, Beachy and Seaford Heads mark the spectacular eastern end of the South Downs where they join the sea.

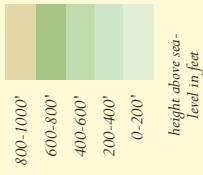
The Downs are a dramatic and well defined Chalk outcrop with an elevated, open and expansive character. Traditionally the Downs have been an important arable asset with, now in limited places, a sweep of rolling close-cropped chalk grassland or woodland on many of the scarp slopes. This uniform and informal landscape is often covered in a large-scale pattern of grass leys and cereals, giving a regular but often fragmented appearance. The Downs still have a ‘wild’, exposed, and remote character, greatly valued in the heavily populated south.

Within this simplified overall pattern there are important contrasts. In the west in Hampshire, the landscape is open and dominated by agriculture and grassland. The steep



Character Area 125 South Downs

- Area 125 boundary
- Adjacent Area
- Motorway
- A Road
- B Road
- Railway and station
- County boundary
- Unitary Authority
- District boundary



scarp slopes fade in prominence beyond Beacon Hill to St Catherine's Hill and Twyford Down where they meld into the open chalk landscape of the adjoining Hampshire Downs. The axis here of the ridge is less noticeable and the east/west alignment is visibly lost and becomes more complex as the Downs diminish. Moving east, extensive woodland creates a more enclosed character as the Downs pass into West Sussex. Further east still, the dry, rolling uplands are cut through with major valleys as the rivers from the Low Weald meander through wet meadow pastures to the English Channel.

On the main scarp in the east, mature woodland sits on the lower slopes while the rough texture of chalk downland turf, often patchy with scrub, dominates the landform and contrasts strongly with the pastoral lowlying patchwork pattern of the Low Weald. The scarp face has few articulating features (although Mount Caburn and Beddingham Hill are noted exceptions) and dominates in southerly views from the Low Weald. In the west the scarp is often clothed in continuous woodland which enhances the linear landform and disguises undulations in landform. The trees on the skyline give scale and definition to the scarp face which means that the deceptive sense of great height is lessened.

Physical Influences

The east-west Chalk ridge of the South Downs is the southern remnant of a once extensive dome of Chalk. The central Wealden portion was eroded during the Tertiary period leaving two ridges – now known as the North Downs and the South Downs. The South Downs have a gentle but broad rolling dip-slope inclined to the south, with a dramatic north-facing escarpment.

Butser Hill, Beacon Hill and Old Winchester Hill form prominent ridges in Hampshire before the South Downs gradually diminish to the west. The escarpment in Sussex forms an undulating ridge along the northern margin of this character area, broken only where the principal river valley systems have eroded a route through to the coast. In other places, steep combs, as at Devil's Dyke, slice into the scarp. It is a steep but rounded slope, with combs cut back into the ridge line, whilst in other places spurs and chalk outliers protrude into the Low Weald below. Southwards from the main scarp, lines of hills and ridges form an intermittent but prominent secondary escarpment which result from variations in the resistance of the different Chalk outcrops. Ancient wave platforms, features of the dip slope, are also common and finally at the Seven Sisters - a range of white chalk cliffs between Eastbourne and Brighton - the South Downs drop abruptly to the sea.

The mass of Chalk in Sussex has been cut into separate blocks by the valleys of the principal rivers – Arun, Adur,

Ouse and Cuckmere – which flow through to the sea. Flat valley bottoms and a meandering river course enclosed by steep-sided slopes with minor cliffs, are, in many places, typical features of these river valleys. The valley floors provide a strong contrast to the surrounding open fields on the higher ground. The river Meon in Hampshire follows a similar course and cuts through the South Downs, the valley broadening in the adjoining coastal plain, until it reaches the sea.



JOHN TYLERS/SUSSEX DOWNS CONSERVATION BOARD

Broad alluvial floodplains, such as the Cuckmere Valley pictured here, consist of fertile pasture used for dairy cattle. Other river valleys such as the Ouse, Arun, Meon and Adur cut through the Downs and provide contrasting narrow belts of flat land within the rolling landscape of the chalk.

Historical and Cultural Influences

Extensive clearance of forest for grazing, and the first introduction of domestic animals and crops, occurred during the Neolithic period. The Chalk Downs were favoured for their light, easily cultivated soils, defensive advantages and relative accessibility as shown by evidence of Neolithic tracks. Clearance was aided by the locally available flint (from the chalk) for tools as evidenced by the Neolithic flint mines at Cissbury Ring and evidence at Old Winchester Hill. The Trundle, a causewayed camp of concentric rings and ditches prominently sited on the dip slope, is one of the best examples of Neolithic enclosure in the country used for holding stock, for ceremonies and trading.

There is evidence to suggest that, during the Bronze Age, there was a temporary change to a nomadic pastoral system, before a return to general mixed farming. The increase in woodland clearance and active management would have created open landscapes and extensive grasslands on the ridge of the Downs. The round barrows

of the Bronze Age are among the most common archaeological features found on the Downs including, for example, the burial mounds of the Devil's Jumps near Hooksway and those on Bow Hill above Kingley Vale and at Old Winchester Hill.

As agricultural communities became more nucleated and widespread in the Iron Age, the south facing dip-slope became covered with well-defined field systems (of small geometric fields bounded by lynchets), managed woodlands and pasture. Hillforts sited prominently in strategic locations, such as Cissbury Ring and Old Winchester Hill, reflected political and economic centres while other remaining earthworks such as cross dykes represented boundary demarcations or stock enclosures.



The South Downs consist of an archetypal chalk landscape of rolling hills, steep scarp slopes with dry valleys and a rich archaeological character. Centuries of sheep grazing on steep slopes have produced a network of tracks following the contours of the hills.

The Romans, further exploiting the light soils, created large arable estates and agricultural trade increased. By the 10th century, the availability of pasture on the Downs coupled with the fertile soils of the South Coast Plain enabled further enrichment of the estates. In some cases, these early estates gave rise to the large and rich estates of later centuries. The latter included impressive country houses, which were to share in the influencing of the English Landscape Movement, and the spread of parkland with its expansive pasture, clumps and follies.

By the 19th century, beech plantations had begun to appear and prosperous mixed farming of cereal and fodder together with sheep pasture characterised the Downs. However, this period was followed by a depression caused by cheap imports from abroad which led to a decline in grazing and cereal production. Farm buildings, hedgerows and woodlands all became neglected.

The present day concentration of woodland in the central part of the Downs is partly due to land ownership by large estates, coupled with the more sheltered inland location. Large-scale timber production had historically been linked to the navy at Portsmouth and had tended towards the thinner soils of the upper slopes, thus changing the inherent vegetation pattern.

Buildings and Settlement

With the exception of the major north-south routes which cut through the open Downs, there are few roads within the Downs themselves and, where they do occur, they are small and rural. Settlement is sparse, being confined to scattered villages, hamlets and moderately large, isolated farms with traditional barns.

The eastern end of the Downs is hemmed in by the coastal plain conurbations; these are less intrusive in the west, but pylons, telecommunications masts, road traffic, glass houses and recreation grounds are widespread throughout the area. The urban area itself is visually very intrusive in the east, along the southern edge of the dip-slope, particularly where there are densely built-up areas on relatively elevated land.

On the lower parts of the Downs there are scattered groups of modern farm buildings tucked into the dry valleys of the dip slope, or clustered along the foot of the escarpment. The remainder of the Downs has limited settlement and few buildings.

The traditional buildings are of brick or flint, brick quoins and window details and roofs, of tile or slate. Apart from the large flint barns on the open sites in the Sussex Downs, there are generally few buildings or roads on the open spurs and the often isolated farm buildings are reached by long chalky tracks.

Many villages nestle in the valleys, alongside a stream. They tend to be small clusters of traditional flint and brick buildings, set within mature trees and sometimes surrounding a village pond. Such villages are commonly associated with the parkland estates which are evidenced by the presence of well-built enclosing walls of flint. Single farmsteads, many with large modern buildings, are common here. On the south margins of the dip slope, villages tend to have a more diverse mix of buildings, the traditional flint interspersed with rendered and brick houses.

Notable exceptions to the traditional built character include the urban extension of Worthing, Brighton and Peacehaven, and the dual carriageways of the, M3, A24, A3 and A23. One of the more recognisable, recent developments in the area is the ridgetop grandstand of Goodwood Racecourse which breaks the saddle of the skyline above Goodwood. Arundel Castle is an imposing building, sitting high above the Arun floodplain, it is one of the most distinctive landmarks in the area. Much of it is a relatively new

JOHN TYLER/SUSSEX DOWNS CONSERVATION BOARD

structure, though the original castle was a Norman motte and bailey.

Windmills with huge white sails were once a regular feature in the South Downs landscape. Now only a few remain such as the Jack and Jill windmills perched on the crest of the Chalk near Clayton and also the prominent Halnaker Windmill, above Goodwood, which can be seen from parts of the South Coast Plain.



The A27 cuts through the downland on the northern fringes of Hove, introducing development pressures from the encroaching town.

Land Cover

The land use pattern of the South Downs is predominantly centred on cereals and sheep, and also woodland that has survived on the steeper slopes which were traditionally difficult to clear. However, extensive plantations exist on the enclosed uplands of the dipslope in western Sussex. Cereals are grown predominantly on the deeper soils of the less exposed lower slopes. The vivid colours of the crops and the texture of the chalk fragments in ploughed soils are a particularly noticeable feature on the Downs.

The grazing of sheep maintains open and homogeneous semi-natural chalk grassland habitats that are noted for their particularly rich botanic diversity. The chalk downland turf is seen as the traditional clothing of the Downs, especially those steeper scarp slopes in the east and far west where it has developed over centuries without cultivation or chemicals. The appearance of naturalness is enhanced by the diversity of plant species, some of them rare flowering herbs, which combine to form the soft springy turf. However, due to a decrease in sheep farming, chalk grassland now only remains in small areas which are often isolated and difficult to manage. As a result, downland farming is now mainly a combination of arable crops and improved grass leys. The lack of grazing has led to the invasion of scrub in most of the chalk grassland areas which detracts from the traditional smooth appearance of the South Downs landscape.

There are scattered copses on the skyline but generally there are few trees or woods in the eastern Downs. Hedgerows are rare but, where they occur, they tend to be sparse, narrow and sporadic, with a few stunted trees. They tend to be near isolated upland farmsteads or alongside ancient chalky tracks.

Tree cover creates a much more enclosed atmosphere in the centre of the Downs with intensive farming, enclosed by hedgerows with hedgerow trees, and scattered woodland. A number of designed parklands, sometimes altered by cultivation, are also found to the west.

The present day tree cover is either broadleaved woodland, with beech, ash and sycamore, or is mixed with conifers. There are also some large plantations of Corsican pine and western red cedar and isolated remnants of yew forest. The chalk ash or beech hangers on the escarpment of East Hampshire are notable features. English elm is now largely confined to areas around the coastal towns of East Sussex and the Cuckmere Valley.

The vegetation of the river valleys is markedly different. There are permanent semi-improved pastures providing grazing for cattle in late spring and summer. The pasture at the edges of the valleys is often enclosed by hedges and copses, lines of alder, and willow and poplar, some of which are pollarded. The alluvial soils – some of the most productive in the area – support crops and intensive dairying.

Many of the Downland footpaths and bridleways follow drove roads and transport routes which have been used for centuries along the accessible downland tops. The high parts of the Downs, including the South Downs Way, are the most important recreational features of the Downs. The escarpment tops and the coastal headlands are particularly popular places due largely to the panoramic views, ease of access and apparent sense of remoteness.

The Changing Countryside

- Past expansion of arable cropping, improved grass leys, intensive livestock systems and scrub encroachment have reduced the extent of chalk grassland since 1945. Most of what remains are isolated remnants restricted to the steep scarp slopes.
- More recently, there has been a reversion of significant arable areas to grassland and restoration of sheep grazing. Also fencing of significant areas of the Downs under the South Downs Environmentally Sensitive Area scheme.
- Afforestation, both coniferous and beech, has occurred since the 19th century but is less of an issue today.
- Loss and decline in quality of beech hangers/woodland in the central part of the Downs landscape due to lack of management and storm damage.



JOINTTILERSUSSEX DOWNS CONSERVATION BOARD

Brick and flint cottages are characteristic of the few scattered villages and hamlets to be found in the South Downs.

- Modern drainage of the river valleys alters the traditional character, producing a more formal, regularly patterned landscape of arable fields – for example, significant areas of wet grassland in the Cuckmere, Arun and Ouse valleys are under pressure from drainage and lowering of the water table.
- The open landscape is vulnerable to change from new farm buildings, urban edge pressures extending from the heavily built-up coastal fringe onto the Downs and from prominent communication masts on exposed skylines.
- Pressures for road improvements often associated with major cuttings and/or tunnels in the Downs.
- Increasing recreational pressures including greater demands on public rights of way by walkers, horse riders, mountain bikes and from off-road vehicles. Visitors to honey pot sites and demand for formal recreation such as golf courses, are also increasing within the Downs.
- Damage to, and loss of, archaeological remains from agricultural and recreation uses.
- Winterbournes are becoming increasingly dry from continued over-abstraction of the chalk aquifer and lack of recharge due to successive dry years.
- Disused chalk quarries are visually prominent features within the downland slopes and have been utilised as major landfill sites.
- Loss of traditional boundaries such as hedgerows and flint walls to the increase in use of different types of fencing.

Shaping the future

- The management of wetlands and river valleys, possibly by use of natural processes, needs to be addressed.
- The protection of existing chalk grassland from agriculture or scrub invasion can be achieved through sympathetic grazing and scrub management regimes. This might include targeted reversion of arable to permanent pasture, in particular the creation of species-rich chalk grassland on the upper and the steeper slopes of the Downs and in parkland.
- The conservation and restoration of beech hangers and valley woodland on the escarpment needs to be considered.
- There is scope for tree planting on the edge of settlements adjacent to downland farms.
- There are opportunities to protect archaeological remains within their setting.

Selected References

- Landscape Design Associates (1995), *A Landscape Assessment of the Sussex Downs AONB*, unpublished.
- Countryside, Commission (1991), *The East Hampshire Landscape CCP 358*, Countryside Commission, Cheltenham.
- Brandon P (1970), *The Sussex Landscape*, Hodder and Stoughton, London.
- Dipper S (1995), *Landscape Assessment of West Sussex - Section 1*, West Sussex County Council, West Sussex.
- White J T (1977), *The South-East Down and Weald: Kent, Surrey and Sussex*, Eyre Methuen, London.
- Sussex Downs Conservation Board and Countryside Commission (1996), *The Landscaps of the Sussex Downs Area of Outstanding Natural Beauty*, CCP 495.
- MAFF (1995), *South Downs Environmentally Sensitive Area Landscape Assessment*, (unpublished).

Glossary

hanger: a wood on the side of a steep hill

leys: land put down to grass or clover for a limited period of years

South Coast Plain



Key Characteristics

- Major urban developments including Portsmouth, Worthing and Brighton linked by the A27/M27 corridor dominate much of the open, intensively farmed, flat, coastal plain.
- Coastal inlets and 'harbours' contain a diverse landscape of narrow tidal creeks, mudflats, shingle beaches, dunes, grazing marshes and paddocks. From the Downs and coastal plain edge there are long views towards the sea and the Isle of Wight beyond.
- Trees are not a dominant feature – there are some small woods and a few windswept individual trees in the farmland or the occasional poplar shelter belt.
- A pattern of large arable fields, defined by low hedgerows, are often interspersed by horticultural glasshouse 'estates' and isolated remnants of coastal heath.
- The complex series of creeks, mudflats and shingle beaches along the coastal edge becomes less apparent to the east with the intensively-farmed plain increasingly dominated by disordered seaside towns and leisure developments.

Landscape Character

The South Coast Plain lies between the dip slope of the, South Downs and the waters of the English Channel, Solent and part of Southampton Water. The Plain stretches from Southampton Water in the west, widening to about 10 miles across to form the Manhood Peninsula and Selsey Bill, before tapering eastwards towards Brighton. The coastline includes several inlets such as Chichester and Langstone Harbours which are particularly distinctive local landscapes.

The flat coastal plain has, in part, an intricately indented shoreline and, although rather exposed to south-westerly winds, temperatures are relatively warm, soils are high quality and the growing season is long. The area is thus intensively farmed and includes a prosperous horticultural industry with glasshouse, development and tourist trade.

The area exhibits one of the longest and most concentrated stretches of shoreline ribbon development in Britain and each coastal town or village has developed almost to the high water mark.

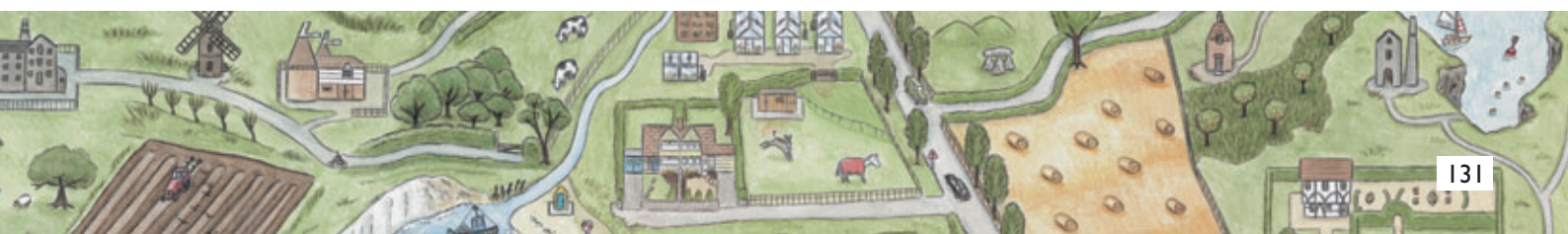
The Plain is broadly divided into the coastal margins which are heavily influenced by the sea, the expansive lower coastal plain which occupies most of the area, and the upper coastal plain. The latter forms the transitional area between the lower plain and the Chalk dip slope of the South Downs to the east and with the South Hampshire Lowlands further west.



JOHN TYLER/COUNTRYSIDE AGENCY

Mud flats and salt marshes with characteristic inlets fringe the undeveloped harbours.

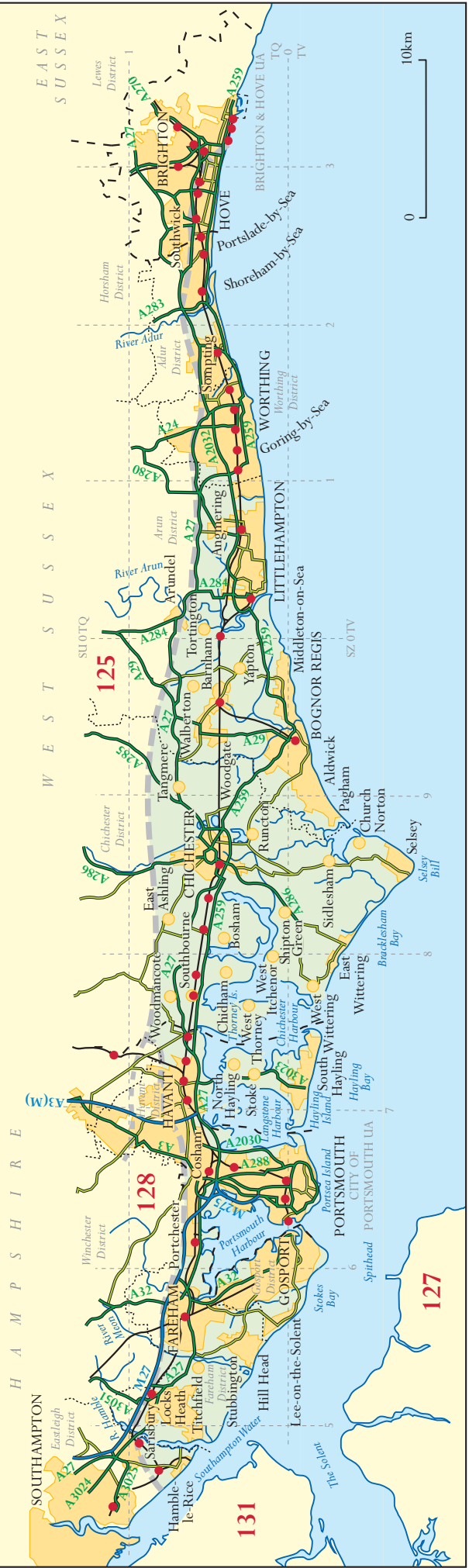
While large parts of the coastal margins have been urbanised by the spread of seaside towns and budget holiday accommodation, the remaining open coastline contains secretive inlets and enclosed harbours. The exposed shoreline is an exhilarating, open, linear landscape of shingle and sand with the great expanse of the sea itself as a backdrop. This shoreline is intermittently indented with inlets and estuaries where broad expanses of sheltered water are edged by an attractive mix of mudflats, marshes, wetland scrub and lowlying fields occasionally interrupted



Character Area 126 South Coast Plain

0-200'
height above sea-level in feet

- Area 126 boundary
- Adjacent Area
- Motorway
- A Road
- B Road
- Railway and station
- County boundary
- Unitary Authority
- District boundary



by small creeks. Chichester Harbour, for example, is one of the largest natural harbours along the South Coast Plain with a diverse, landscape of numerous inlets interspersed with fairly open agricultural peninsulas and wind-sculpted woodlands. Picturesque harbourside settlements are typically clustered around small boatyards and marinas while numerous moored sailing boats dot the harbour edge. Other inlets provide contrast to this scene such as Pagham Harbour which retains an overriding sense of remoteness. This is due in no small way to the extensive tidal mudflats fringed by marsh vegetation and populated by large numbers of migratory birds. In contrast to the relative peace and remoteness of the Sussex harbours, the highly developed and historical Portsmouth Harbour is constantly busy with sailing boats, Cross channel ferries and naval warships.

In the lower plain, the wide scale and treeless farmed landscape is dominated by large arable fields. Views north are contained by the rising dip slope of the Downs, but views seaward are without definition and tend to lack depth and perspective. The urban fringes of the sprawling seaside resorts are pronounced, as is all urban development in this flat landscape. Some smaller-scale landscapes also exist within this part of the Plain such as the quiet hamlets, traditional village centres, pastures, and minor roads. The chalk quarries of Ports Down are notable features and can be seen from some distance, both from the adjoining land and at sea.

To the north and east of the area, the upper coastal plain combines the flat, regular patterns of large fields with the gentle forms and patterns blending into the openness of the lower dip slope of the South Downs. The landscape is varied, incorporating both open arable farmland and low density settlements, with a more well-wooded and semi-enclosed (somewhat suburban) character locally, particularly to the west of Chichester. Hidden, intimate valleys and woods are a distinctive characteristic of the upper coastal plain to the east, such as the valley of Binsted with its steep slopes and winding lane, and the ancient woodlands of the Tortington and Titnore Lane area. The latter are on the southernmost flanks of the Chalk outlier of Highdown Hill which in itself is a unique and prominent feature on the plain.

Even where the plain is enclosed by a mixture of woodlands, the presence of windswept trees and occasional glimpses of the Isle of Wight reflect the generally open and exposed coastal location.

Physical Influences

Geologically, this landscape is part of a broad plain of flinty marine and valley gravels extending several miles inland to the dip slope of the South Downs and the South Hampshire Lowlands. The plain slopes gently southwards towards the coast becoming almost imperceptible; at Hayling Island the

landscape is flat, save for the undulating sand dunes. The continuity of the Plain is interrupted by many streams and rivers which flow to the sea – in the case of the river Hamble through a wooded valley. The superficial gravel deposits give rise to deep and well-drained brown earths which occur widely over much of the area while thinner chalky soils have formed over the distinctive Chalk outlier of Highdown Hill.

The coastal plain comprises essentially two units, a lower plain between 10 and 15 metres AOD and an upper plain between 30 and 40 metres. Each of these plains is underlain by clayey, sands, and gravelly deposits of raised beach, head gravel and brickearth deposits laid down when relative sea levels were higher than at present. The Upper Raised Beach Deposits contain unequivocal evidence of 'Boxgrove Man', his artifacts and an extensive mammalian fauna indicative of pre-Anglian glaciation (>450,000 years ago) age. Boxgrove Man therefore provides evidence for the earliest known human occupation of the British Isles.



IAN MCGOWAN PHOTOGRAPHY

Long linear shingle beaches and sand dunes are dominant features which are enjoyed by residents of the highly developed hinterland.

The wave-cut benches underlying the upper and lower coastal plains are cut into folded Chalk and Tertiary strata preserved in a series of en-echelon synclines and anticlines. One of the latter forms Ports Down which makes a prominent backdrop to the coastal plain in the west.

The lower plain is cut by southward-facing streams, locally termed 'rifes', each of which have dry headwater extensions over the upper plain and on into the Chalk dip slope of the South Downs. Towards the west, the lower coastal plain grades into terrace flats attributed to the 'Solvent river', present in the area during low sea-level events of the Ice Age.

The plain is crossed by rivers such as the Arun, Adur, Hamble and Meon which locally form wide alluvial floodplains. Now flooded, gravel pits comprise some of the largest areas of freshwater in the region. Over the superficial deposits lies a range of fertile soils which combine with the flat terrain and favourable climatic conditions to result in high quality agricultural land.



Picturesque waterside settlements are attractive features of the less developed harbours.

The sand and shingle beaches have been shaped by the complimentary processes of erosion and deposition since the last major change in sea level, forming spits across river mouths and inlets. Loose sand has gradually formed modest sand dune systems in some places. Around Selsey, outcrops of brickearth and chalk have been eroded to form low cliffs. Chichester and Pagham Harbours are submerged shallow valleys, dominated by mudflats built up through the deposition and stabilisation of silt and mud transported by streams.

The three harbours of Chichester, Langstone and Portsmouth are interconnected by narrow channels and together form the largest intertidal area on the south coast.

Historical and Cultural Influences

The coastal area (particularly in and around Langstone Harbour) has disclosed extensive palaeoenvironmental evidence of early exploitation. It was, however, the Neolithic forest clearance and grazing, with the introduction of domestic animals and crops when the climate was warm and the land lightly wooded and accessible, that began to open the landscape.

The Romans recognised the agricultural potential of the coastal plain as reflected by their establishment of Chichester between 43 and 61 AD as an important new market town and military centre. Important villa sites, now inland but once on the coast, are still evident as is the Roman fort at Portchester.

By the 10th century, a system of rich agricultural estates

was established to exploit the coastal plain's fertile soils, along with the pasture on the adjacent Downs and the timber and stock rearing of the Wealden fringe further north. By this stage the South Coast Plain would have been developing its reputation as one of the most fertile and intensively cultivated areas of Britain; the prevalence of market gardens and smallholdings on the coastal plain today in Hampshire bears witness to this long history of cultivation.

From 1066, the Norman period saw inland Saxon towns develop outports at New Shoreham and Littlehampton, from which goods could be traded more effectively. Agriculture was prospering and allowed the economy to diversify and the number of market towns to expand.

After an agricultural 'golden age' in the 19th century, cheap imports from America and southern Europe led to a decline in local cereal production and sheep grazing. The establishment of the railways brought new access to the coast and the seaside towns doubled in size by the end of the 19th century. Between 1837 and 1939 large parts of the coastline were built over as the tourist trade grew following the lead of Brighton. This had been prompted by contemporary writings on the health benefits of sea air and bathing. Originally served by paddle steamer from London, Brighton promoted the development of the railway and excursion fares from the capital. As demand increased so the smaller resorts such as Worthing, Littlehampton and Bognor Regis developed along with the rail link in the latter half of the 19th century.

Buildings and Settlement

Within the coastal margins, building materials were traditionally mixed largely reflecting the proximity of the sea for importing raw materials. Timber frames, flint, cob and thatch are all common. The medieval churches around the harbours are of flint and stone. Today, the character of settlement is mixed with traditional harbourside hamlets providing contrast with the recent holiday and residential villages that have sprung up along the shoreline and fringes of villages. Modern marinas and boatyards have also added to the harbour landscape. Urban expansion, industrial paraphernalia and caravan accommodation associated with the edges of seaside towns is prominent along the coastal margins.

On the lower coastal plain, settlements are dominated by suburban villages and the extensive seaside towns between Brighton and the edge of Southampton. Large reflective glasshouses, advertisement signs for farm shops, nurseries and equestrian facilities, golf courses, horse paddocks and industrial and institutional buildings all bring a suburban character, which confuses the definition between the urban centres and their rural hinterland.

The ancient market town and compact cathedral city of Chichester sits at the centre of this character area, with its distinctive spire forming an important landmark. To the east, numerous villages form a fairly continuous residential sprawl, although this pattern includes some traditional flint hamlets and farm buildings. Along Southampton Water, smallholdings and bungalows are scattered but merge with the increasingly suburban outreaches of Fareham towards the Solent. Several large offices and residential tower blocks and gas holders in the larger towns dominate long-distance views.



PORTSMOUTH COMMERCIAL PORT

The natural harbours have lent themselves to development leading to a thriving maritime trade.

To the north at the base of the Chalk dip slope, settlement is more dispersed. A network of typically-winding secondary and minor roads, usually hedged or wooded, links together small flint villages, isolated dwellings and farm buildings, and the mixed housing styles of village fringes.

Many villages have retained their attractive medieval and late medieval core often arranged around a green or market area and the varied vernacular architecture displays strong relationships with its region.

Land Cover

Along the coastline itself, the vegetation is typified by a scanty covering of low growing, often mat-forming, specialised plants which can tolerate the saline conditions and mineral substrate. The shifting, dry shingle, mud and sands of the shoreline are particularly hostile to the establishment of vegetation and are generally devoid of cover, except where shingle-loving species and sand dune grasses have colonised naturally or by introduction. On the newly-formed ground of the mudflats in the inlets, pioneering intertidal marsh communities have colonised and these demonstrate a well-defined succession of plant types and species towards the land. Although not a dominant characteristic, scrub and small areas of wind-sculpted woodland persist on some coastal fringes, particularly around the sheltered inlets. Oldpark Wood, near Bosham Hoe, is a significant example.

Semi-natural communities occur almost as 'islands' within the arable land which project into the peninsulas from the lower coastal plain. This is a fertile area which supports intensive arable farming and horticulture, with some dairy, beef and poultry. Areas of medium-quality agricultural land where soils are shallow, stony and poorly drained, often support good quality permanent grassland such as the Arun floodplain.

The thicker gravel deposits support a mixture of high and medium quality soils which are intensively farmed where the soils are flintier. The area also supports mixed farming, including pig rearing, with horse paddocks and grazing on the poorer land.

The lower coastal plain, particularly in the west, is typically a homogeneous landscape of large open fields with few trees or hedgerows. Drainage ditches, wire fences or low banks are more usual as field boundaries. The sense of exposure within this open landscape is heightened by the odd stunted and windswept oak that stands along the lines of former hedges. A small number of isolated coastal heaths and woodlands occur on the open plain, with shelter belts of pine, oak or poplar shielding buildings from exposure to the wind.

In the upper coastal plain, tree cover varies. There is a strong network of small and medium-sized broadleaf woodlands, including some which are ancient and semi-natural, well-linked by hedgerows and garden exotics to provide an enclosed field framework. The landscape pattern comprises coniferous plantations, some ancient woodland, and a strong frame of small fields, woods and hedgerows. This quite high degree of vegetation cover is especially notable in contrast to the relatively treeless open lower coastal plain. In many places

woodland accentuates the prominence of elevated towns, as in the case of Arundel where the well-wooded landscape separates the town from the suburban villages to the west.

The Changing Countryside

- Mineral extraction, landfill and flooded gravel pits.
- Small villages engulfed by the expansion of urban coastal developments.
- Possible, pressure for new service areas along A27/M27 in the future.
- Ribbon development, holiday camps and caravan parks.
- Pressures for recreational uses and marina/harbour developments along the coast.
- Development of large modern glasshouses.
- Construction of rock islands as coastal protection measures immediately off the coast have a major visual influence.
- Coastal dredging operations may exacerbate erosion of the coastal edge resulting in the loss of distinctive landscape features such as coastal marshes.
- Future changes in sea level may become an important issue given that the South Coast Plain's flat low-lying nature makes it particularly vulnerable to rises in relative sea level.
- Loss of hedges and hedgerow trees owing to field enlargement.
- Recent significant loss of tree cover due to Dutch Elm disease and storm damage.

Shaping the Future

- The conservation of woodlands and new planting should be considered where appropriate.
- There are opportunities for the reversion of arable fields to grazing pasture.
- The conservation of wetlands – including those of the intertidal zone – is important to the area.
- There is scope for further restoration of field hedges and hedgerow trees under appropriate agri-environmental land management schemes.

- Coastal zoning and management would balance nature conservation, landscape and recreational interests.



Fertile soils are intensively farmed, with a prosperous market garden and horticultural trade reflecting the relatively warm temperatures and long growing season.

Selected References

- Millward R and Robinson, A (1973), *South-east England – The Channel Coastlands*, Macmillan, London.
- Dipper S (1995), *Landscape Assessment of East Sussex – Section 1*, West Sussex Counts, Council, West Sussex.
- Hampshire County Council (1993), *The Hampshire Landscape*, Hampshire Counts Council, Hampshire.
- Hinton D A and Insole, A N (1988), *Ordnance Survey, Historical Guides: Hampshire and the Isle of Wight*, George Philip, London.
- Countryside Commission (1992), *The Chichester Harbour Landscape CCP 381*, Countryside Commission, Cheltenham.
- Brandon P (1970), *The Sussex Landscape*, Hodder and Stoughton, London.
- Langstone Harbour Board – Langstone Harbour Management Plan – February 1977.

Glossary

AOD: Above Ordnance Datum

en-echelon: arranged in a stepped formation in parallel lines

substrate: surface on which organism grows