Appendix R
Landscape Character Type R: Upper Coastal Plain

The *Upper Coastal Plain* is a gently undulating landscape lying at the foot of the chalk dipslope along the southern edge of the South Downs. This landscape type extends outside the National Park boundary to the south.

Description

Key Characteristics

- Low lying undulating landscape at the foot of the chalk dipslope forming a transition between the chalk downs and the flat lower coastal plain.
- The underlying geology (upper chalk) is masked by drift deposits of 'Head' (weathered and broken up material) at the foot of the dipslope which gives rise to stony fertile soils.
- Drained by a series of streams running southwards towards the sea, some dammed to form ponds.
- A strong network of hedgerows, hedgerow oaks and woodlands create structure – woodlands form links with the wooded downs to the north.
- Mixture of field sizes and shapes supporting a mixture of pasture and arable - regular rectilinear fields represent reorganisation of earlier field systems and recent enclosure of former commons.
- The coastal plain is well settled - nucleated historic towns and villages are located along the foot of the dipslope. Characteristic building materials include flint and brick.
- Extensive and complex sub-surface archaeology indicates that the fertile upper coastal plain has been intensively exploited by numerous farming settlements.
- A wealth of historic features including historic parklands, ancient woodlands (of medieval origin), irregular assarts and prehistoric earthworks.
- The plain is crossed by a large number of roads – many of which continue up the dipslope of the chalk onto the chalk downs.
- Sand and gravel pits indicate the economic value of the underlying drift deposits.

Physical Landscape

R.1 This transitional, gently undulating landscape is underlain predominantly by upper chalk forming a smooth, gently undulating topography. However, the solid geology is masked by thick deposits of 'Head' which give rise to well-drained flinty, silty and clayey soils known as argillic brown earths. These fertile soils give rise to good agricultural land (Grade 3 in DEFRA's agricultural land classification) which supports arable cropping, pasture and woodland.

R.2 There is a range of field shapes and sizes – from vast open arable fields to small irregular pastures. Woodland ranges from small copses to larger more extensive swathes that extend across the dipslope from the *Wooded Estate Downland* to the north.

R.3 There are few water courses in this landscape due to the underlying chalk. However, there are occasional springs and ponds on the southern edge where the chalk meets impermeable clays.

Perceptual/Experiential Landscape

R.4 Where hedgerows are intact and woodland remnants survive, the landscape is perceived as secluded and rural. However, where large modern enclosures dominate, the landscape has a more regimented open character.

R.5 The presence of undulating fields, hedgerows, woodlands and parklands give this area a rural character. However, the sense of tranquillity is eroded by the presence of sand and gravel pits and a golf course plus traffic on the A27.

R.6 Parts of the *Upper Coastal Plain* are accessible by car and on foot due to the presence of some rural roads, footpaths and open access land. However, many areas are inaccessible, notably the large scale arable landscapes and the private parklands. Opportunities for public access are provided by the public footpaths and bridleways that extend up onto the adjacent downs.

Biodiversity

R.7 This character area is dominated by arable land, together with scattered blocks of woodland, including some of ancient origin, as well as areas of broadleaved, mixed and plantation woodland. A large proportion of woodland is identified as a BAP Priority Habitat (deciduous woodland) and many are connected to a relatively intact hedgerow network, which includes frequent standard oaks. Small areas of BAP Priority Habitat good quality semi-improved grassland and lowland calcareous grassland, as well as occasional areas of neutral grassland, drains, ponds and streams, provide important ecological features in the local context.

Key Biodiversity Features	Importance
Deciduous woodland blocks (a BAP Priority Habitat), including ancient woodland.	Deciduous and ancient woodland supports notable woodland ground flora and breeding birds and invertebrates.
Good hedgerow network with standard oaks	Provides additional ecological interest within the arable dominated landscape.
Occasional semi-natural grassland, ponds and streams (including BAP Priority Habitat good quality semi-improved grassland and lowland calcareous grassland)	Provide refuge for a range of plant species, and invertebrates.

R.8 An area of BAP Priority Habitat lowland calcareous grassland at Highdown Hill (north of Ferring) is identified as providing an effective habitat network in Natural England's National Habitat Networks Mapping Project. An area of BAP Priority Habitat good quality semi-improved grassland, also at Highdown Hill, is identified as being suitable for restoration as it exists in a degraded or fragmented form.

R.9 Network Enhancement Zones have been identified around Highdown Hill, where land connecting existing patches of these habitats are likely to be suitable for the creation of grassland habitats. This will result in the joining up of existing habitats and subsequently improving the connections between them.

Historic Character

R.10 Prehistoric and Romano-British occupation of the character area is likely to have been extensive. However, surface traces of settlement are non-existent, having been completely removed by centuries of ploughing, with the exception of artefact scatters in ploughed fields and cropmarks/soilmarks visible in aerial photographs. Excavation has proved the survival of extensive and complex sub-surface archaeology. The various classes of evidence strongly indicate that the coastal plain was intensively exploited by numerous farming settlements, some of which were nucleated in nature, set within complex systems of fields and droveways. This carving up of the landscape culminated dramatically during the later Iron Age with the creation of the Chichester dykes, a series of linear boundaries delineating an area of high status settlement, a site known as an oppidum. Part of this system, known as the Devil's Ditch, lies within the *Upper Coastal Plain*.

R.11 The fertile soils were identified by the Anglo-Saxons, who established a string of nucleated settlements along the foot of the Downs and across the coastal plain. Some of these early settlements were located in areas formerly occupied by Roman villa estates.

R.12 By the medieval period, the *Upper Coastal Plain* formed an integral part of a sophisticated and efficient agrarian landscape based around sheep-corn husbandry. Nucleated villages were established along the fertile soils of the character area. The villages were surrounded by open fields, with woodland and downland pastures towards the extremities of the parishes. The open arable fields were manured by sheep flocks brought from the downland sheepwalks at night.

R.13 The changing economic and social conditions of the later medieval period saw the decline of the open field system, and many of the remaining open fields were enclosed on a piecemeal basis, often beginning with the lords' demesne lands. Much of the common gazing land was enclosed in the 18th-19th century and is recognisable on earlier maps as isolated blocks of regular rectilinear fields surrounded by irregular earlier enclosures, the generally poor quality of the land reflected in names such as Hungerdown. Much of this

earlier landscape has now been swept away by modern field amalgamation into large arable fields, interspersed with assart woods that were left after the surrounding woodland was cleared and enclosed as farmland. Much of the surviving woodland is of pre-1800 date, probably reflecting surviving medieval woodland.

Key Features of the Historic Environment	Importance
Nucleated settlements	Indicative of medieval manorial system based around open fields.
Early enclosures	Indicative of relative prosperity of the area, allowing early response to changing economic and social conditions.
Modern enclosures	Evidence for major reorganisation of landscape of more productive soil.

Settlement Form and Built Character

R.14 The settlement pattern in the *Upper Coastal Plain* is characterised by nucleated settlements located along the foot of the chalk downs. This conforms to Historic England's rural settlement designation of East Wessex Sub-Province within the South-eastern Province. The typical settlement form is of mid-late Anglo-Saxon origin and comprises nucleated groups of former farmsteads situated around the church and manor house, and set within groups of fields enclosed in the later medieval period but originally forming open fields farmed on a communal basis. Scattered isolated farmsteads derive from more recent enclosures during the 18th-19th centuries, and are set within large regular field systems that have replaced earlier patterns.

R.15 Building materials are typically flint, red brick, timber and clay tiles.

Evaluation

Ecosystem Services in the Upper Coastal Plain

R.16 Ecosystem services are the benefits people and society get from the natural environment. The *Upper Coastal Plain* provides:

Provisioning	■ Food provision– fertile soils support arable farming along with some dairy, beef and poultry farming. ■ Timber provision – from small to medium sized blocks of broadleaf woodland between areas of farmland and urban settlement. ■ Water availability – the small areas of the coastal plain within the National Park overlie important chalk aquifers. Surrounding urban settlements are reliant on groundwater and surface water abstractions for public water supply.
Regulating	■ Regulating water quality - the underlying chalk geology acts as a natural filtering system and helps to maintain the chemical and ecological status of water bodies. ■ Regulating water flows – the groundwater from the underlying chalk feeds many of the rivers, streams and wetlands in the surrounding area. ■ Regulating soil quality - the free draining soils are fertile and protecting their quality is important for maintaining agricultural yields, water infiltration and aquifer recharge. Excess nutrients being washed from the soils can cause pollution of the underlying chalk aquifer. ■ Regulating soil erosion – vegetative cover, particularly woodland and permanent pasture helps prevent soil erosion. ■ Climate regulations - broadleaf woodland plays an important role in local climate regulation. ■ Air quality regulation – woodlands play an important role in regulating local air quality. ■ Pollination – unimproved and semi-improved grasslands are important nectar sources for pollinating insects.
Cultural	■ Sense of place – the presence of woodland, some traditional villages and settlements with a local vernacular and view of the coast and out to sea provide a strong sense of place. ■ Tranquillity – this area provides pockets of relative tranquillity which contrast with the urbanised coastal plain to the south. ■ Recreation – opportunities for recreation and access, particularly associated with the woodland and access to adjoining downland areas from the urban settlements along the coast.
Supporting	■ Biodiversity – grassland and woodland cover provides important habitats for woodland plant species, lichens, fungi, breeding birds and invertebrates.

Sensitivities

R.17 This landscape type has many sensitive physical and aesthetic/perceptual features that are vulnerable to change.

Key Landscape Sensitivities	
1.	The rural character of the landscape which could be vulnerable to further built development.
2.	The wetland habitats associated with springs and streams.
3.	The strong network of hedgerows, hedgerow oaks and small woodlands which form important visual and ecological links with the wooded downs to the north and could be vulnerable to lack of management.
4.	Former common land remnants of which persist if only in place name.
5.	Early field enclosure patterns which could be vulnerable to field amalgamation or expansion.
6.	Nucleated historic villages exhibiting local building materials including flint and brick whose character and settings are vulnerable to change.

Key Landscape Sensitivities	
7.	Avenues, parkland trees, and woodland associated with historic parklands which contain key ecological features, and which are vulnerable to ageing and piecemeal change.
8.	Archaeological features such as the 'Devil's Ditch' which could be vulnerable to intensive farming methods.
9.	The rural character of the unmarked roads which could be vulnerable to 'improvements'
10.	Visibility of the landscape from the adjacent downs.

Change – Key Issues and Trends

Past Change

R.18 Past change includes:

Past Change	
1.	Enclosure of former commons in the 18th-19th century.
2.	Workings associated with gravel extraction leading to loss of habitat and leaving scars into the landscape in the 20th century.
3.	Reorganisation of earlier landscapes into large open fields during the 20th century. Loss of some field boundaries due to decline in hedgerow management.
4.	Decline in woodland management resulting in declining condition of some woodlands during the 20th century.
5.	More recent development of horse paddocks and associated fencing, stables and lights which can erode the rural character of the landscape and lead to the overgrazing of pastures.

Future Landscape Change

R.19 The likely future changes are set out in the table below:

Future Change	
1.	Increased temperatures may result in introduction of different crop types on mixed farms, which could change the visual character of the landscape.
2.	Increased drought conditions could affect the wetland habitats around springs and streams.
3.	Higher temperatures could also lead to incidence of different livestock pests and possible increased use of pesticides if pests and pathogens increase.
4.	Agricultural management will be driven by the changes in the world market and the agricultural policy. In this area of fertile soils, it is likely that agricultural production will continue to intensify with amalgamation of farms and potential new large scale farm buildings. On the other hand, land that is more marginal for farming will be vulnerable to purchase as hobby farms or for horse grazing.
5.	Positive landscape change could result from programmes to promote enhanced environmental management of hedgerows, hedgerow trees and woodland, as well as the restoration of former quarries.
6.	If Net Zero commitments are implemented, it is likely that there will be key changes to land use, including a reduction in grazing land to free up land for other uses such as bioenergy crop planting, and woodland related to afforestation initiatives. The demand for wood fuel as a source of renewable energy could result in improved management of woodlands.
7.	As this landscape contains many village settlements, it is likely to see some additional built development. This could result in increases in artificial lighting, expansion of villages, erosion of the rural character of the landscape and increases in traffic pressures on the rural roads. There may also be changes as a result of the cumulative impact of many small-scale changes to individual properties.

Broad Management Objective and Landscape Guidelines

The overall management objective should be to conserve the rural setting to villages and historic features of the landscape and enhance the condition of the network of hedgerows, hedgerow oaks and woodlands that link with the wooded downs to the north.

Guidance for Landscape Management

A. Conserve and manage wetland habitats associated with spring and streams and seek to extend unimproved meadow grassland.

B. Manage the hedgerows to conserve an intact hedgerow network. Monitor regeneration of hedgerow trees and consider re-planting where necessary.

C. Consider re-introducing traditional woodland management techniques, such as coppicing and thinning and encourage interest in, and marketing of, local wood. This will also ensure a diverse species and age structure and minimise risk of damage as a result of increased storms and high winds.

D. Restore disused gravel workings to grassland, scrub, woodland and wetland habitats.

E. Be alert to potential new pests and diseases and plan for their management. Continue to monitor native species to assess changes in numbers and distribution. Monitor and control the spread of invasive species which are a cause of decline in native habitats, such as Rhododendron *Rhododendron ponticum* in the woodland. Refer to the SDNP INNS Strategy.

F. Conserve the irregular medieval enclosures around the medieval nucleated settlements and isolated farmsteads which provide a sense of historic continuity and landscape texture – avoid field expansion in these areas.

G. Conserve historic designed landscapes, and their settings, encouraging the management/ restoration of permanent pasture, parkland trees, avenues and clumps of trees.

H. Conserve and manage prehistoric and later earthworks, such as the 'Devil's Ditch', promoting sensitive agricultural practices in their vicinity.

I. Resist road 'improvements' that would threaten the rural character of the unmarked roads.

J. Encourage sympathetic integration of horse paddocks through maintenance of hedgerow field boundaries and avoiding overgrazing of pastures.

K. Manage visitor and recreation pressure, where necessary, by diverting people away from particularly sensitive sites and habitats, particularly visitor numbers associated with the South Downs Way. Develop new coastal recreational routes in areas which are at greatest risk of erosion.

Guidance for Integrating Development into the Landscape

A. Conserve the nucleated form and rural character of historic villages. Promote the use of local building materials (notably flint and brick) to retain sense of consistency through the character area.

B. Monitor the effects of incremental change to buildings – develop design guidance to help resist suburban style garden boundaries, kerbs, and lighting that could erode the rural character of the area.

C. Integrate built development on the edges of villages or farms into the landscape using native planting of broadleaved species and maintain the rural setting to settlements.

D. Take account of views from the adjacent downs in association with any change in the coastal plain, including representative views identified in the View Characterisation and Analysis, such as the sea views from Highdown Hill.

Woodland strategy and suitable species

R.20 The arable farmland of the LCT has a strong network of woodland and hedgerows with frequent hedgerow oaks, with 9.18km^2 of woodland, including broadleaved, mixed and plantation woodland covering 34% of the LCT. The woodland strategy is to conserve and retain the existing landscape pattern through augmentation, encouraging planting of indigenous species woodlands, maintaining visual and ecological links with the wooded downs to the north.

R.21 Appropriate plant species may be informed by the National Biodiversity Network Gateway, relevant Biodiversity Action Plans and biological records from the relevant Biological Records Centre.

R.22 Ensure any purchased plant stock is through reputable nurseries, operating the Plant Health Assurance Scheme (once it has been trialled) to protect against the risk of *Xylella fastidiosa* and other plant health risks.

Character Areas The *Upper Coastal Plain* landscape is represented by one character area in the South Downs – this area occurs along the southern boundary of the National Park between Funtington and Durrington.	
R1:	South Downs Upper Coastal Plain

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Location and Boundaries

The *South Downs Upper Coastal Plain* character area is a narrow strip of land on the southern boundary of the National Park between Funtington and Durrington. It forms a transition between the chalk downs to the north and the lower coastal plain to the south (outside the National Park). The northern boundary of the area therefore represents a transition, but is drawn along a line that represents a change in underlying geology. The southern boundary of the character area is formed by the National Park boundary, but in reality the *South Downs Upper Coastal Plain* landscape extends beyond the National Park boundary.

Key Characteristics

- The northern edge of the low lying, undulating, fertile strip of land between the dipslope of the South Downs and the sea.
- The underlying geology (upper chalk) is masked by drift deposits of 'Head' (weathered and broken up material) at the foot of the dipslope which gives rise to stony fertile soils.
- The outlying chalk ridge at Highdown Hill is a distinctive feature and is separated from the chalk dipslope to the north by a narrow clay vale.
- Drains, ponds and streams around Ashling, including the source of the Bosham Stream, and designed ponds at Ashling Park, provide important ecological features in the local context.
- Mixture of field sizes and shapes supporting a mixture of pasture and arable – vast fields between East Lavant and Halnaker are reminiscent of the medieval open field landscape that formerly existed here.
- A strong network of hedgerows, hedgerow oaks and small woodlands create structure – woodlands form important visual and ecological links with the wooded downs to the north. Extensive woodland cover in the east creates a distinctive dark horizon in views from the A27.
- The clay vale between the chalk dipslope in the north and the outlying chalk ridge at Highdown Hill was probably assarted from the late Saxon period onwards, producing the irregular patchwork of early enclosures still visible around Ecclesden Farm (east of Angmering). Blocks of recent enclosure mark areas of former common e.g. at Slindon.
- Nucleated historic villages e.g. Funtington, West Ashling, East Ashling, Mid Lavant, and East Lavant, are located along the foot of the dipslope. Characteristic building materials include flint and brick.
- Registered Park and Garden at Highdown and other historic parklands at Ashling, Goodwood, Slindon and Binsted, contribute landscape features such as avenues, parkland trees, and woodland.
- A wealth of archaeological features indicating the long history of the landscape, including the Bronze Age and Iron Age earthworks at Highdown Hill and the series of Iron Age linear boundaries defining an area of high status settlement on the outskirts of Chichester at 'Devil's Ditch'.
- Crossed by narrow rural roads, many of which continue up the dipslope of the chalk onto the chalk downs.
- Sand and gravel pits indicate the economic value of the underlying drift deposits.
- Views over the coastal plain and towards the sea from Highdown Hill.

Specific Characteristics Unique to the South Downs Upper Coastal Plain

R.23 The *South Downs Upper Coastal Plain* character area is typical of the landscape type, comprising a gently undulating landscape on lower chalk, masked by deposits of 'Head' which give rise to well drained flinty, silty and clayey soils that support a mixture of arable cropping, pasture and woodland. However, the south eastern part of this character area is unique in that it encompasses a chalk outlier, Highdown Hill, and the clay vale that separates Highdown Hill from the main chalk dipslope to the north. Occasional areas of species-rich chalk grassland occur at Highdown Hill and the Miller's Tomb LWS. South of Funtington, in the west, is a spring and several

associated ponds, as well as small areas of neutral grassland, which mark the source of Bosham Stream. A small area of BAP Priority traditional orchard is located at Lavant House (to the south of Mid Lavant). These provide important ecological features in the local context. This rural landscape forms a setting to the chalk downs to the north.

R.24 The range of field shapes and sizes is represented, in this character area, by vast open arable fields between East Lavant and Halnaker and small irregular pastures around West Ashling. The vast open arable fields represent modern reorganisation of earlier enclosures, but are reminiscent of the medieval open field landscape that formerly existed here. The area of small, hedged fields and woodland remnants around West Ashling, by contrast, is perceived as secluded and rural. There is also some remaining late medieval or early post-medieval enclosure north of Binsted and a larger block around Binsted Park. The clay vale and chalk outlier of Highdown Hill are characterised by early enclosures of later medieval date interspersed with smaller clumps of pre-1800 woodland.

R.25 The sense of tranquillity on the *South Downs Upper Coastal Plain* is eroded by the presence of sand and gravel pits, traffic on the A27, and the noise of aircraft and cars at Goodwood airfield and motor racing circuit.

R.26 Woodland tends to be in small copses, although there are a particularly large areas of ancient (semi-natural and replanted) woodland at Slindon Park (part of which is designated as Slindon Bottom LWS), Binsted Park (Binsted Park Complex LWS), Rewell Wood Complex LWS, Titnore & Goring Woods Complex LWS and Poling Copse LWS. Woodland is also associated with the historic parklands at Ashling and Goodwood. Towards the north of the area, larger woodlands merge with woodlands and plantations on the dipslope of the downs. Here there are numerous public footpaths and bridleways up onto the adjacent downs, and parking provision at Slindon Estate (managed by the National Trust), which provide countryside access. National Trust managed land at Highdown Hill also provides parking and visitor facilities. At the site of a hillfort, Highdown Hill is a good vantage point from which to view the landscape. Views to the east and south include the densely populated coastal towns of Worthing, Ferring and East Preston, while extensive sea views are afforded to the south, including views of the Rampion offshore wind farm.

R.27 The settlement pattern in this character area is typical of the landscape type, characterised by strings of nucleated settlements along the foot of the downs. In this character area this pattern is represented by the nucleated villages of Funtington, West Ashling, East Ashling, West Lavant, and East Lavant. These villages comprise nucleated groups of former farmsteads situated around the church and manor house, and are indicative of the former medieval manorial system based around open field farming. Goring Castle and its surrounding landscape is a late 18th century Grade I listed country house on the eastern edge of the character area. Mature trees, improved grassland pasture and a walled garden, are surrounded by woodland to the west and south and provide a setting to the house.

R.28 Typical of its type, this character area contains some prehistoric and later earthworks, including the Bronze Age and Iron Age earthworks at Highdown Hill, which provide a strong sense of historical continuity.

Sensitivities Specific to the South Downs Upper Coastal Plain

R.29 All of the landscape and visual sensitivities listed in the landscape type evaluation apply to this character area. Specific features sensitive to change in this area are:

Key Landscape Sensitivities
1. The wetland habitats around Ashling, including the spring, ponds, and neutral grassland which mark the source of Bosham Stream, and designed ponds at Ashling Park.
2. Species rich chalk grassland at Highdown Hill.
3. Former common land e.g. at Slindon, which still has remnant of its former character even if only in place name.
4. Archaeological features such as the 'Devil's Ditch' and at Highdown Hill which could be vulnerable to intensive farming methods.
5. Nucleated medieval villages of Funtington, West Ashling, East Ashling, West Lavant, and East Lavant, and their secluded, rural settings formed by small, hedged fields and woodland of medieval origin.
6. Areas of historic parkland and woodland at Slindon Park, Ashling Park, Binsted Park and Goodwood Park.
7. The irregular patchwork of assarts south of the A27, e.g. around Ecclesden Farm (east of Angmering).
8. The visibility of this landscape from the adjacent downs, for example from the viewpoint at The Trundle.
9. The panoramic views towards the sea from Highdown Hill.

Change Specific to the South Downs Upper Coastal Plain

R.30 In addition to the generic changes listed in the landscape type evaluation, specific changes to this area include:

Forces for Change	
1.	Additional suburban style development at Mid Lavant, introducing suburban features into a rural landscape.
2.	Pressures for some additional built development associated with Funtington, West Ashling, East Ashling, West Lavant, and East Lavant.
3.	Cumulative impact of many small-scale changes to individual properties.
4.	Infrastructure upgrades for the A27 (T) which could further erode tranquillity.
5.	Future offshore wind energy development seen from Highdown Hill.

Landscape Management/Development Considerations Specific to the South Downs Upper Coastal Plain

R.31 In addition to the generic landscape management and development considerations for this landscape type, the following landscape management considerations are specific to this character area:

a. Conserve and manage wetland habitats around Ashling and the source of the Bosham Stream, including meadows and marsh. Seek to extend unimproved meadow grassland.

b. Conserve the archaeological features at Devil's Ditch and Highdown Hill, promoting sensitive agricultural practices in their vicinity.

c. Conserve and enhance the historic parklands and woodlands at Slindon Park, Ashling Park, Binstead Park and Goodwood Park through woodland management, replacement tree planting and the restoration of parkland pasture.

d. Conserve the nucleated form and rural character of historic villages of Funtington, West Ashling, East Ashling, West Lavant, and East Lavant.

e. Integrate built development on the edges of villages or farms into the landscape using native planting and conserve the small scale medieval field patterns and secluded, rural character of landscape setting to the villages.

f. Encourage sensitive integration of fencing, tracks, hardstanding, jumps and other paraphernalia that are associated with hobby farms or private stables and that fall outside planning control.

g. Seek opportunities to reduce the visual impact of intrusive elements including upgrades and increased traffic associated with the A27 (T).

h. Consider the impact of offshore development on views, particularly the popular viewpoint at Highdown Hill.