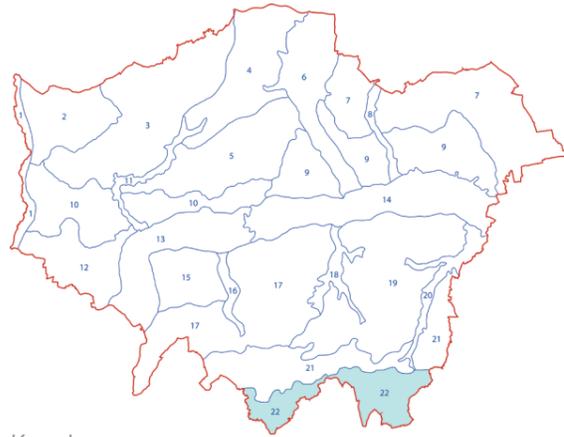


## 22. Upper North Downs Dip Slope

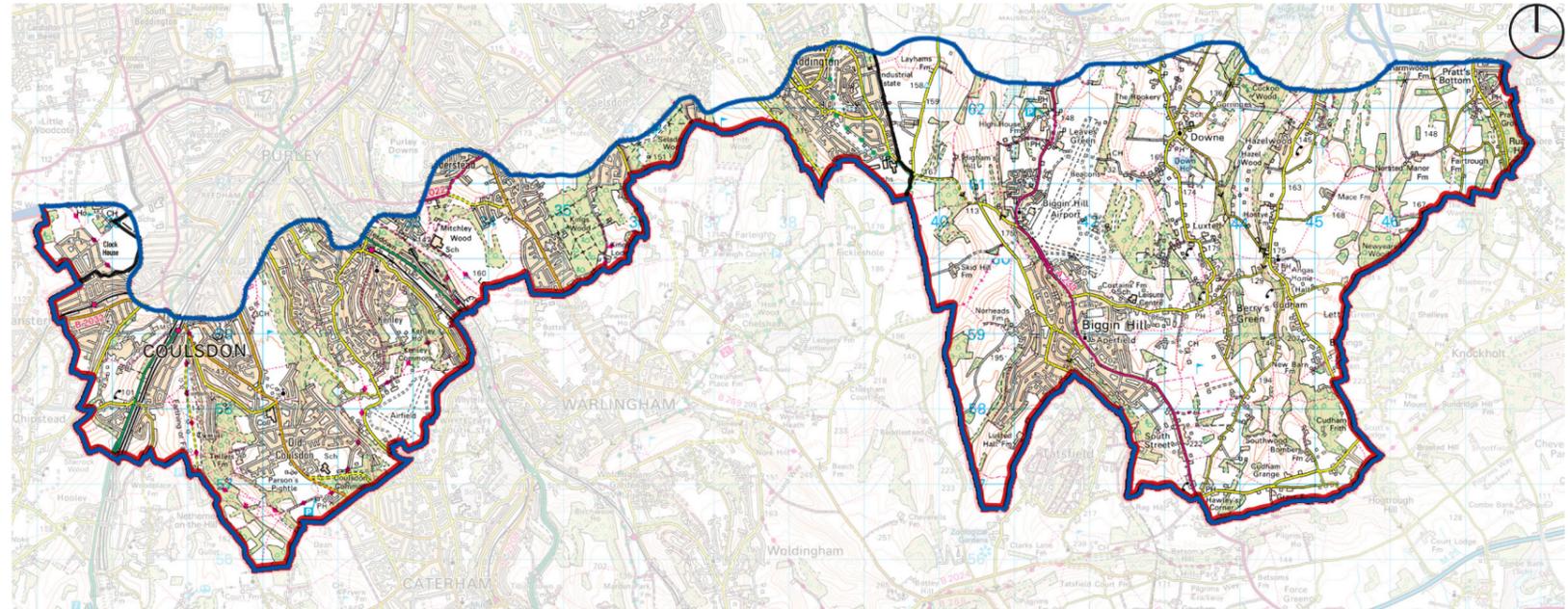


Key plan

### Description

The Upper North Downs Dip Slope Natural Landscape Area includes extensive parts of the North Downs dip slope within the boroughs of Bromley and Croydon, including the chalkland landscapes of Coulsdon and Biggin Hill.

The whole of this area is underlain by the resistant chalk bedrock of the North Downs and the distinctive topography reflects the geological history of this part of south east England. 20 million years ago, massive tectonic shifts in the earth's crust (which created the Alps) pushed the existing layers of chalk, clay, silt and sand upwards to form a vast dome or anticline centred on the area which is now known as the Weald. The corresponding syncline forms the London Basin. Gradually, over millions of years, the softer rocks at the centre of the dome eroded away to form the Low Weald, leaving the North and South Downs as an upstanding rim of chalk. The layers of rock which form the North and South Downs are tilted at a sharp angle, with steep scarp slopes facing towards the centre of the original Wealden Dome and shallow dip slopes leaning towards its outer edge. Most of the curving ridgetop 'spine' of the North Downs is to the south of the Greater London area, but the boundary extends to the summit of the escarpment at Hawley Corner and Cudham Grange, from which there are panoramic views.

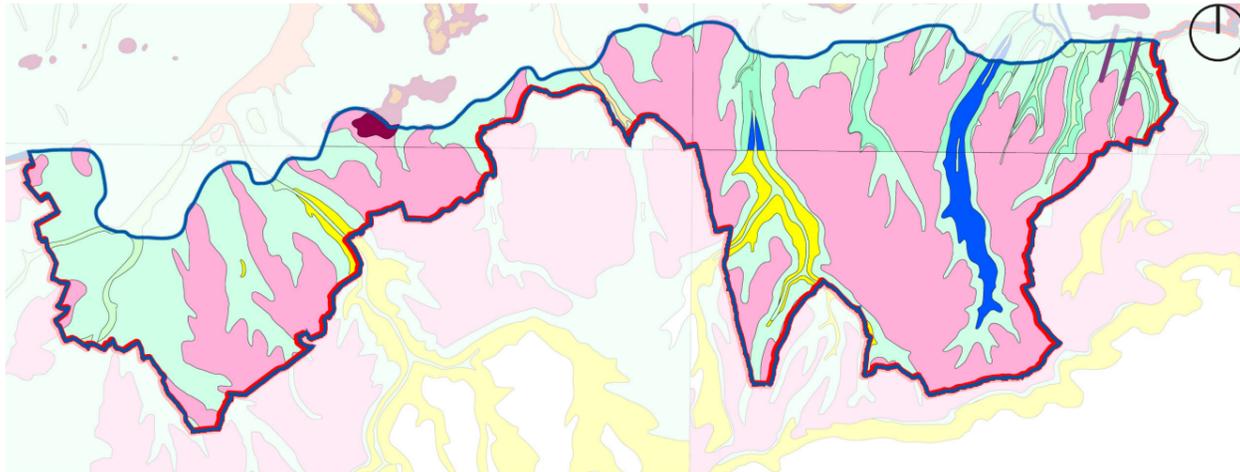


22. Upper North Downs Dip Slope

The topography reflects the distinctive, rolling upland relief typical of chalk downland landscapes. There is little surface drainage, but the combination of structural folding and glacial erosion has produced uneven slopes, carved into sweeping forms by branching trough-shaped dry valleys. The tributaries of the Upper Wandle are present as intermittent streams, but the dip slopes to the east (near Biggin Hill) have only dry valley systems.

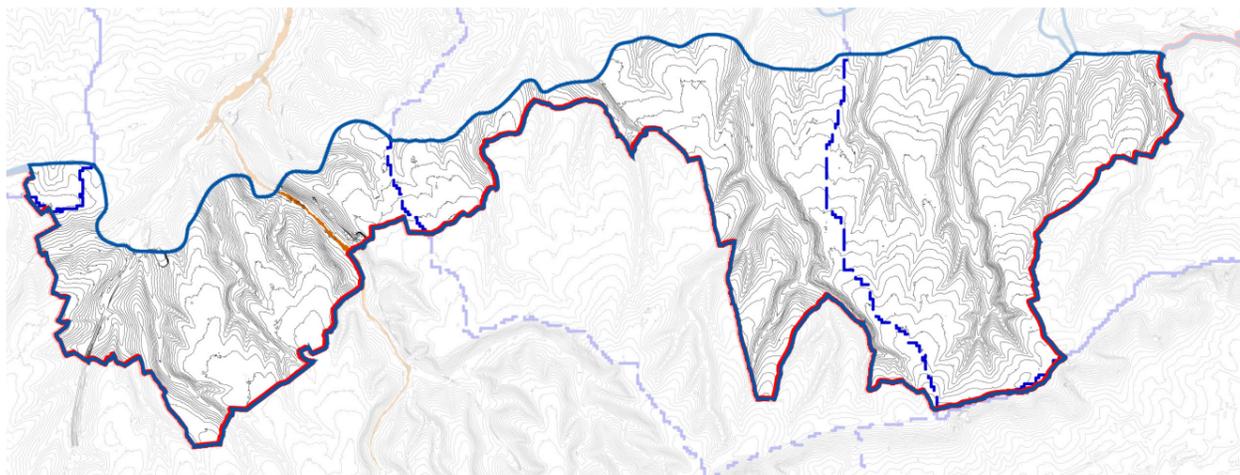
These upper chalk slopes have superficial deposits of clay-with-flints, which produce soils deep enough to support extensive woodlands. As a result, this part of the North Downs has a relatively wooded character, with remnant fragments of extensive ancient oak-ash-beech-yew woodlands. Elevated land with a relatively even slope has been developed as airfields at Biggin Hill and Kenley.

Patterns of settlement reflect lines of communication along the valleys and sheltered valley side slopes. There are older settlements with medieval churches at Old Coulsdon, Downe, Cudham and Sanderstead but there has been extensive plotland, interwar and postwar residential development, predominantly around Purley and Coulsdon.



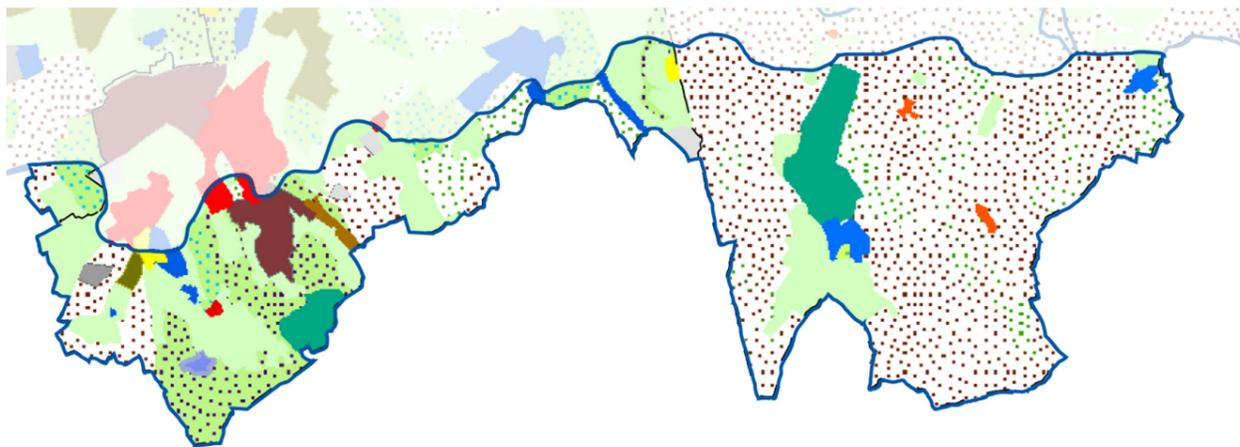
Geology

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Rivers and Topography

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Historic Development

ACKNOWLEDGEMENT: ENGLISH HERITAGE DATA

## Natural Signature and natural landscape features

### Natural Signature:

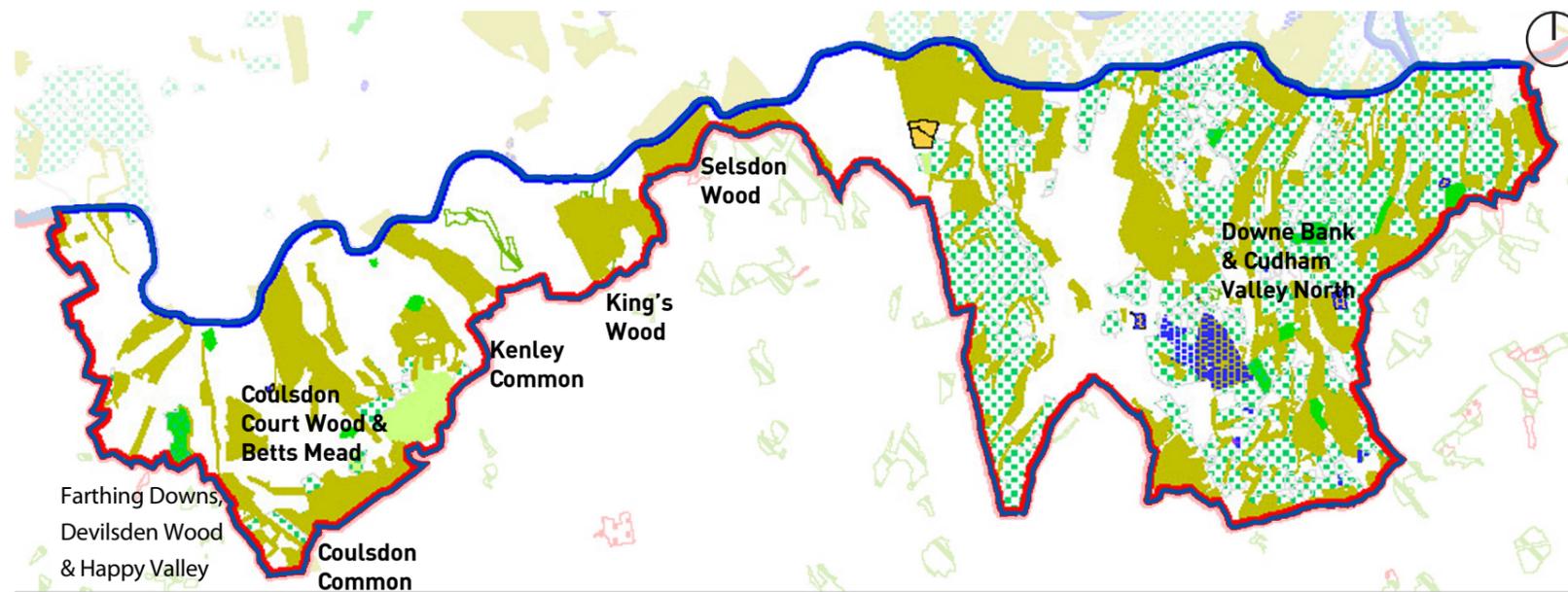
**Upper North Downs Dip Slope – Ancient woodland and chalk grassland on steep valley slopes emphasise the striking, sculpted chalkland relief.**

The form and alignment of remnant ancient woodlands and hedgerows often emphasises the sculpted, steep dry valley landforms of the upper chalk dip slopes. The steep, open slopes on the fringes of the woodlands are often valuable chalk grassland habitats, dotted with rare orchids and important habitats for a variety of unusual flora and fauna. There are superb views across the London basin from many of the valley ridges and panoramic views north across the London Basin and south across the Weald, from the ridgetop summit of the North Downs escarpment to the south of Biggin Hill. The landscape has been affected by solution hollows and by man-made dene holes left behind from chalk mining, mainly for agricultural lime.

Examples of natural landscape features within the Upper North Downs Dip Slope Natural Landscape Area are:

- **Farthing Downs, Devilsden Wood and Happy Valley** – A rich variety of chalkland habitats, with chalk grassland at Farthing Down and Happy Valley, and ancient woodland (predominantly oak, yew, hazel and ash) at Devilsden Wood and its outliers to the south. The downland is managed by grazing and has many rare chalk grassland species, including the greater yellow-rattle, round-headed rampion, dropwort, horseshoe vetch and woolly thistle and many rare orchids. Skylark breeds in the area, which is also an important site for glow-worm, the nationally scarce Roman snail and 24 butterfly species, including the Chalkhill Blue.

- **Coulsdon Common** – A large site with a range of woodland and grassland habitats. There are scattered large specimens of oak throughout the south of the site, probably representing single trees surviving from grazed parkland habitat. Other trees include wild cherry, rowan and beech. Glades include areas of acid grassland with heath bedstraw, tormentil and heath wood-rush. In the north, on the chalk, calcicolous grassland has developed beneath the trees. Here there are more beech trees, along with large swathes of bluebells and, on the more open valley floor, many chalk grassland species, including marjoram, wild basil and the rare greater yellow-rattle.
- **Coulsdon Court Wood and Betts Mead** – An area with a range of wildlife habitats, rising from the Caterham Valley to Kenley Aerodrome. The habitats are mixed woodland with meadows, including extensive hay fields. There are fragments of ancient woodland with oak, beech, yew and wild cherry and areas of old ash and hazel coppice. The meadows to the south are dominated by Yorkshire fog and meadow grasses with pepper-saxifrage scattered in damper places and there are areas of scrub and chalk grassland.
- **Coulsdon Memorial Recreation Ground Grassland** – A recreation ground which contains fragments of diverse chalk grassland. These support a wide range of characteristic plants, including common spotted-orchid, quaking-grass, glaucous sedge and dwarf thistle. The site is most notable for its strong population of pyramidal orchid, which at over 600 plants, is one of London's largest.
- **Kenley Common** – A large site with a wide range of habitats. The grassland ranges from acid and peaty to richly calcicolous. Chalk grassland occurs chiefly where the site drops steeply east into the Caterham valley. Here, and in intermediate grasslands, the nationally rare and specially protected greater yellow-rattle is common, along with a range of orchids. On the flatter top of the common the grasslands become increasingly acidic, supporting several rare and uncommon species. Present are tormentil, fine-leaved sheep's fescue and heath-grass. The woodlands are chiefly oak and ash with birch and planted sweet chestnut.
- **Kings Wood** – A superb example of ancient oak woodland on clay overlying chalk. Other trees include silver birch, downy birch, ash, yew and hornbeam. The western part of the wood has a rich ground flora which includes dog's mercury, wood sorrel, sanicle, wood anemone, early-purple orchid and yellow archangel. There is also a fine display of bluebells.



Natural Habitats &amp; Landscape Key Features

- **Selsdon Wood** – An extensive ancient woodland, supporting a diverse flora and fauna. Much of the woodland is oak with sections of ash-maple woodland that are quite unusual. The well-developed understorey is composed of hazel with holly and crab apple. The ground flora is exceptional and includes many species indicative of long-established woodland. Peripheral habitats include meadows supporting the nationally rare greater yellow-rattle, pyramidal orchid and various common butterflies.
- **Downe Bank and Cudham Valley North** – This site incorporates diverse beech-oak ancient woods on the steep chalk slopes of the Cudham dry valley system, which support numerous regional and locally uncommon plants. Chalk grassland in clearings on the western side of the valley, and a more extensive area on the eastern side, support a rich flora including a variety of orchids. Several ancient species-rich hedgerows cross the valley, connecting the habitat on the two sides. This is one of very few sites in London known to support the common dormouse.

## Underlining the natural signature of the Upper North Downs Dip Slope

### Key influences

- Rolling chalkland topography.
- Branching trough-shaped dry valley systems.
- Ancient woodland on steep valley slopes, with oak, beech and yew.
- Ancient species-rich hedgerows.
- Chalk grassland with orchids.
- Prominent stands of oak and beech – often local landmarks.
- Ash-hazel coppice.
- Bluebell woods.

### Design clues

Ideas for place making and shaping future design decisions - how the Natural Signatures for each natural landscape area might be expressed within the wider public realm, through new development and landscape management projects.

- Rounded, 'sculpted' landforms – at every scale, from minor embankments and mounds to broad, sweeping open spaces.
- Grazed meadows enclosed by hedgerows.
- Orchids on prominent slopes.
- Curving hedgerows, aligned to emphasise subtle variations in landform.
- Specimen oak, beech and yew trees, planted in small groups as striking landmarks.

## Upper North Downs Dip Slope – Key environmental assets

Environmental Asset	Relevant borough	Notes
<b>Farthing Downs, Devilsden Wood and Happy Valley</b>	Croydon	Rich variety of habitats overlying chalk; includes grazed grassland.
<b>Coulsdon Common</b>	Croydon	Range of grassland and woodland; scattered oak specimens.
<b>Coulsdon Court Wood and Betts Mead</b>	Croydon	Restoration of historic grassland through programme to remove scrub; mixed beech and oak woodlands.
<b>Coulsdon Memorial Recreation Ground Grassland</b>	Croydon	Mixed woodland and meadows; notable for strong population of pyramidal orchid.
Coulsdon Quarry & Wood	Croydon	Largely inaccessible woodland on quarry ridge; large areas of scrub, mainly native species.
<b>Kenley Common</b>	Croydon	Wide range of grassland habitats, including acid, peaty and richly calcicolous; woodlands are predominantly oak, but include small numbers of other native species.
<b>Kings Wood</b>	Croydon	Excellent example of oak woodland on clay overlying chalk; includes numbers of birch, ash and yew; rich groundflora.
<b>Selsdon Wood</b>	Croydon	Extensive ancient woodland; diverse flora and fauna; woodland predominantly oak; large numbers of breeding avifauna.
<b>Downe Bank and Cudham Valley North</b>	Bromley	Numerous species-rich ancient hedgerows connecting ancient oak woodland and chalk grassland.