

A LANDSCAPE OVERVIEW

Introduction

South Oxfordshire is a predominantly rural District which covers a land area of 253 square miles (65,521ha) [4]. It embraces large areas of unspoilt countryside within its boundaries and a diverse pattern of landscapes, including rolling downland, extensively wooded hills, historic parkland, low-lying farmland and riverside meadows, with a scattering of rural villages and some larger settlements.

This patterning is the product of the interaction between the physical structure of the landscape and the nature of the vegetation and land uses that cover it. To understand what makes places distinctive, it is helpful to summarise the main physical and human influences which have shaped the District's landscape over time.

Physical influences

Between its northern and southern boundaries, South Oxfordshire District spans three distinct geological formations that have a profound influence upon topography, soils, vegetation and landscape character (see Figures 2 and 3).

In the north, the **Oxford Heights** are a series of low limestone hills that surround Oxford and form part of the 'Mid-vale Ridge', an irregular band of limestone which stretches from Wiltshire to Buckinghamshire across the otherwise low-lying plain of the Thames and Avon clay vales. The hills are composed of Upper Jurassic Corallian limestones and sands, which are widely used as building stone in this area, and which form porous, calcareous soils. In places, these rocks are overlain by Kimmeridge Clay and a capping of Lower Greensand which forms the higher ground at Shotover Hill, Forest Hill and above Garsington. These rocks are almost devoid of lime and form thin, sandy soils.

Across the centre of the District, the limestone gives way to the **Upper Thames Clay Vale**, which forms part of a broad lowland valley that links the Vale of White Horse to the west with the

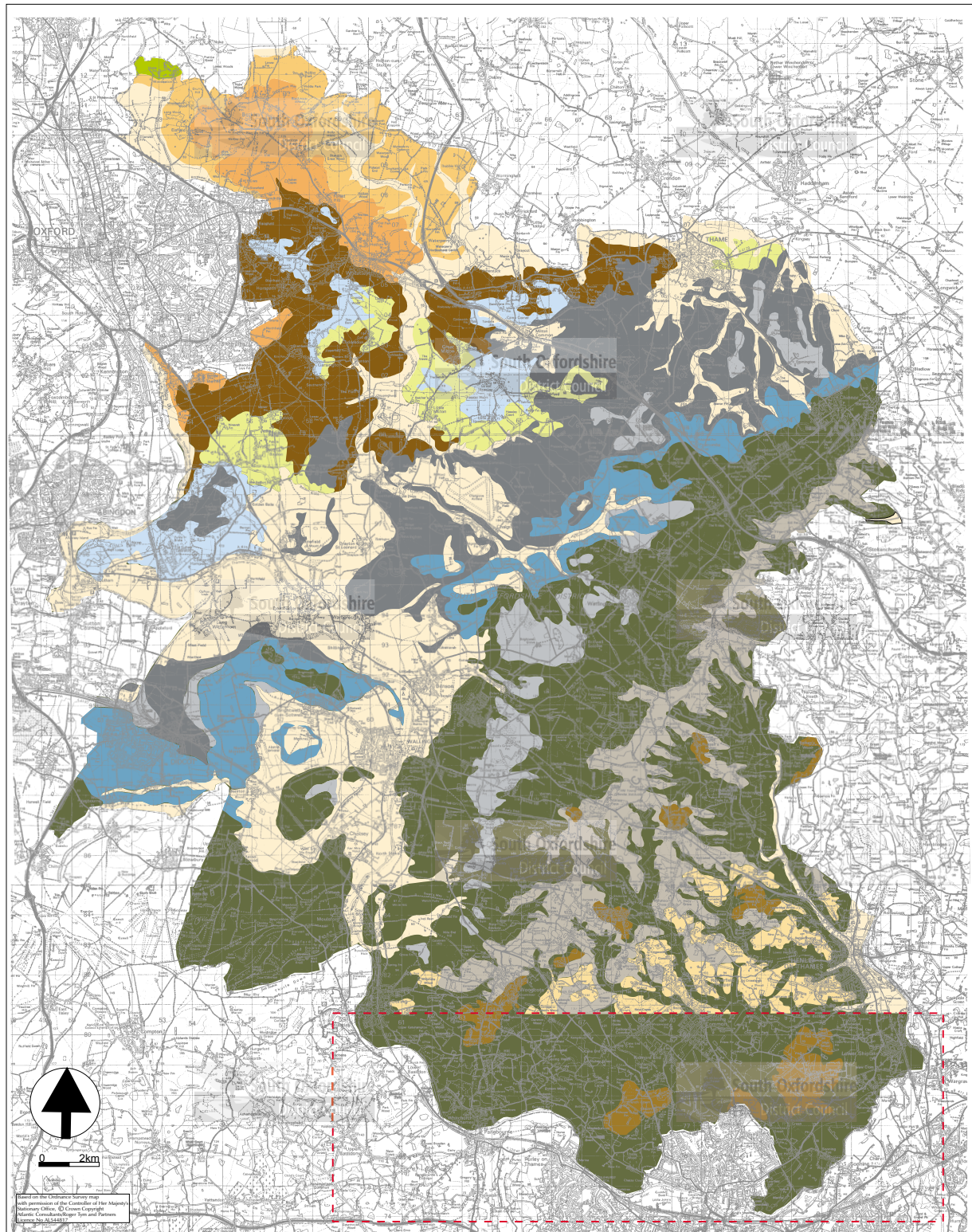
Aylesbury Vale in the east. Much of the vale is underlain by bands of Kimmeridge Clay and Gault Clay, characterised by subdued relief and stiff, heavy soils. The vale is drained by the rivers Thames and Thame, which meet at Dorchester, and are surrounded by extensive, low-lying alluvial flats with naturally impeded drainage. Within this alluvial floodplain, however, deposits of terrace gravels produce lenses of drier, raised ground more suited to settlement and cultivation. Along the southern edge of the vale, a band of Upper Greensand ('or Malmstone') is marked by more pronounced, rolling landform and lighter, calcareous and more fertile soils.

Across the south of the District sweeps a broad belt of **chalk uplands**, part of the more extensive cretaceous chalk belt of southern England. To the east, the **Chiltern Hills** form a highly distinct land mass with its steep escarpment facing the vale to the north and its dip slope descending gently into the Thames Valley to the south. Where the chalk is exposed along the escarpment and valley sides, the soils are thin and calcareous and support remnant chalk grassland and scrub woodland. On the plateau and dip slope, however, the chalk is overlain by extensive deposits of clay-with-flints, producing more acid soils which support extensive woodlands, medium grade farmland and even remnant heath.

The River Thames cuts through the chalk belt at Goring and separates the Chilterns from the **North Wessex Downs** to the west. These open, rounded chalk downs form an elevated plateau of smoothly rolling or undulating topography, incised by dry valleys or combes, often with scrub woodland on the steeper slopes. Soils are predominantly light, free-draining and thin except where clay-with-flints cap the chalk, creating localised areas of damp, heavier soils.

Traditional building materials closely reflect these broad geological differences, with local Wheatley limestone predominating in the Oxford Heights, brick and tile on the clays of the vale, and brick and flint (with locally grown timber) characterising the Chilterns and Wessex Downs.

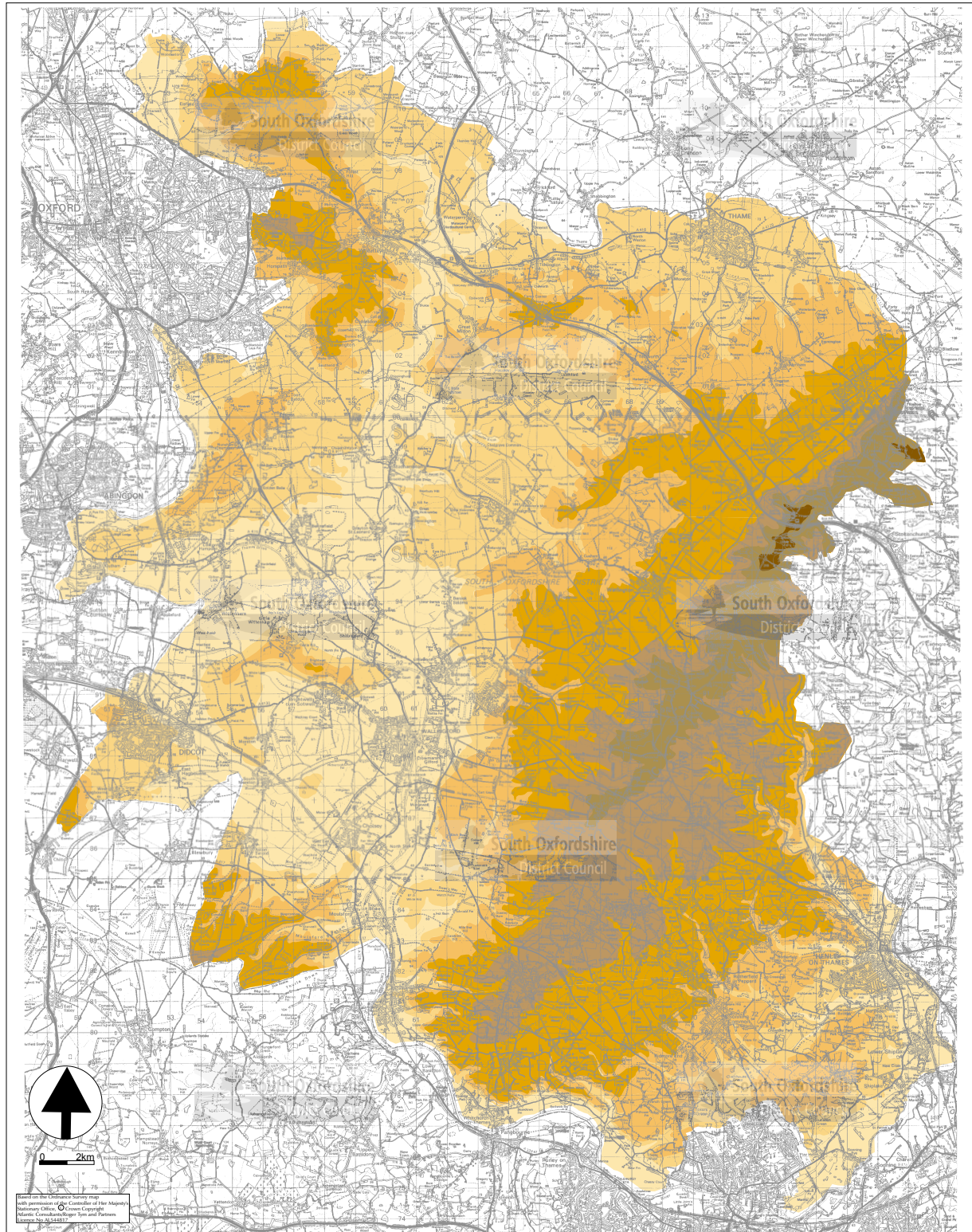
GEOLOGY










KEY

	Solid geology London Clay/ Reading Beds		Lower Greensand		Oxford Clay		Older River Gravels
	Cretaceous Chalk		Portland Beds		Oolitic Limestone		Head and Coombe Deposits
	Upper Greensand		Kimmeridge Clay/ Amphill Sands		Drift geology		Clay with Flints
	Gault Clay		Corallian Beds		Alluvium/Younger River Gravels		Solid geology only shown in this area

TOPOGRAPHY



KEY

	0-60m AOD		150-200m
	60-80m		200-250m
	80-100m		Above 250m
	100-150m		

Human influences

The basic physical structure of the landscape has also had a strong influence on patterns of human occupation and activity within South Oxfordshire. In particular, slope, elevation and the supply of water have influenced the selection of sites for settlement, while the workability of soils and their potential for improvement has influenced patterns of agriculture and land use.

Although evidence of **prehistoric settlement** is sparse, it indicates that early settlers had a distinct preference for sites on higher ground less prone to flooding, with more easily worked soils and access to springs or other supplies of water. Favoured sites are found on the Thames-side terraced gravels, the open Chiltern chalklands and the Corallian limestones and sands of the Oxford Heights. By contrast, the heavy, wet soils and woodland cover of the clay lowlands and areas underlain by clay-with-flints were less attractive. Important prehistoric thoroughfares, like the Icknield Way, also followed the outcrops of dry, permeable rocks and formed a focus for early settlement in the District.

Prehistoric farmers were responsible for radical changes in the landscape, progressively creating clearings in the dense forests to create extensive open pastures or croplands. Early forest clearance was concentrated on areas of higher land with lighter soils but later extended to the heavier soils of the vale, using iron tools for axes and ploughshares.

The **Romans** also brought great changes to South Oxfordshire, creating an integrated pattern of new settlements, planned roads, farming estates and kilns for manufacturing pottery [5]. The growth in population demanded further woodland clearance, to make way for farmsteads, villages and trackways at the foot of the downs and in the river valleys, and to provide wood as fuel for their potteries, iron-smelting activities, brick industry, and bath houses. A major north-south Roman Road also developed at this time along the route of Grim's Ditch, crossing the Thames at Dorchester, which developed as a frontier post succeeding an earlier Iron Age village.

Many of South Oxfordshire's other villages originated from the **Saxon** period, particularly those alongside the Thames (eg. Mapledurham, Goring, Shillingford and the original Nuneham Courtney), those on the Oxford Heights (eg. Headington, Cuddesdon and Holton) and those along the favoured loamy soils of the Chalk shelf below the Chiltern scarp (eg. Pyrton, Watlington, Benson and Lewknor) [5]. This period of settlement established a pattern which is still very much in evidence today.

The Saxons were also responsible for establishing extensive hunting preserves or parks, the management of which was later codified by the Normans who introduced forest law. South Oxfordshire District includes part of the Royal Forest of Shotover, with dense woodland cover formerly extending from Islip to Cuddesdon across the Oxford Heights [6]. Some remnants of this forest survive today.

The early **middle ages** also saw enclosure and clearance of 'wastes' and colonisation of previously unpopulated areas, such as the wooded Chilterns dip slope and marshy valley bottoms (eg. at Marsh Baldon), during a period of relative prosperity and rapid population growth [6]. In the Chilterns, clusters of loosely grouped farmsteads were established on the plateau and new small fields were carved out of the extensive common woods, a process known as 'assarting'. Elsewhere, nucleated villages were typically surrounded by a farming system of large open fields divided into a number of strips, individually owned but farmed together. Many of the medieval villages outside of the Chilterns subsequently became deserted or shrunk to a single farm or group of houses (eg. at Clare) [5].

Open farmland was steadily enclosed by hedges, banks and sometimes ditches during the sixteenth and seventeenth centuries. However, these earlier and more irregular enclosures were largely overwhelmed by the major parliamentary enclosures of the **eighteenth and nineteenth centuries** which transformed the landscape of much of South Oxfordshire and endowed it with an almost 'blueprinted' pattern of square or rectangular fields surrounded by straight thorn hedges. New straight roads were also introduced with wide grass verges, instead of the narrow winding lanes. The Chiltern Hills largely escaped

this revolution and still display many typical characteristics of 'ancient countryside' which contrast with the 'planned landscape' of the Vale.

The process of early enclosure through the Tudor and Jacobean period was accompanied by the development of grand mansions and manor houses, particularly in the Chilterns and Thames Valley, such as Mapledurham House, Hardwick House, Rotherfield Greys and Stonor Park. The formal parks which surrounded these houses had a considerable impact on the landscape but not so dramatic as the designed landscapes of the eighteenth century. These include 'Capability' Brown's dramatic transformation of Nuneham Park and a succession of beautiful parks created along the Chiltern reaches of the Thames Valley, including Mongewell House, Caversham Park and Fawley Court as well as the re-design of the parks at Mapledurham and Hardwick House.

A feature of the Victorian period, which brought the expansion of many settlements in South Oxfordshire, was the distinction between 'closed' and 'open' villages. Changes in the Poor Law meant that members of a parish became financially responsible for its paupers. As a result, parishes with few landowners actively sought to keep out the immigration of new people who may fall destitute, by building only enough houses for their existing workforce. This placed the burden of housing provision upon the 'open villages' (eg. Tetsworth) which expanded at a considerable rate in a sprawling and haphazard fashion, unlike the compact order of the closed settlements. Another legacy of the Victorian period was the arrival of the railway in 1840, which stimulated the expansion of Didcot and made parts of the District more accessible.

Changes to the landscape and settlements of South Oxfordshire during the twentieth century have resulted mainly from the pressures of modern farming and the growth in demand for new housing and more efficient communications. The increasing mechanisation of post-war agriculture has obliterated many miles of hedgerows and woodlands and transformed many of the former enclosure landscapes back, as Malcolm Emery puts it, into the "bare, open vistas of the ancient common fields: see the lifeless prairies at Ipsden in the Chilterns, or Great Milton in the Vale..." [5].

The ecological and visual impoverishment that has resulted seems to be widely regretted, and recent initiatives (eg. Countryside Stewardship) and agri-environment policies seek to reverse these trends and, in effect, to replace some of the lost structure of the former enclosure landscapes. However, these changes are slow to materialise and, in the meantime, farming practice is still primarily dictated by market forces and financial subsidies. The recent growth in extensive pig rearing, which has a significant landscape impact, is an example of this response [7].

This century has also seen the growth and expansion of towns and villages throughout southern England. The proximity of South Oxfordshire to London and improvements in road and rail communications have placed significant pressures on the District to accommodate new housing. Some settlements, such as Didcot, have expanded rapidly with a significant effect upon the local landscape character. Elsewhere, however, much of this pressure has been successfully resisted, particularly in the smaller rural settlements.

A less obvious effect of the prosperity of this area, however, is the gradual 'suburbanisation' and 'gentrification' of many of the District's villages and a gradual erosion of local distinctiveness. The same effects are evident across the District and are manifested in more 'urban' types of fencing, surfacing, buildings, lighting and highway treatments, which cumulatively detract from the traditional, rural character of the village or hamlet. A design guide for South Oxfordshire is being produced specifically to encourage more sensitive, high quality and appropriate design in the countryside and settlements of the District. Other changes in the landscape have been wrought by the construction of new roads, especially the M40 motorway which carves its way through the Chiltern escarpment, and by mineral extraction, which has transformed the Thames Valley around Dorchester.

In planning for future change within South Oxfordshire, the main challenge is to provide a suitable balance between the contrasting claims for housing and business expansion on the one hand and maintenance of the generally unspoilt rural qualities of the landscape on the other.

Variations in landscape and visual character

Having explained the underlying physical and human influences that have shaped the overall landscape of South Oxfordshire, the process of sorting the landscape into units of distinctive character helps further to unravel the factors that contribute to local landscape character.

The process of characterisation has been informed by other landscape assessments which apply to South Oxfordshire. In particular, the study aims to be broadly consistent with the Countryside Commission's 'Countryside Character Map of England', which provides a national/regional context for defining character areas, and the Chilterns AONB landscape assessment [7], which provides a more localised breakdown of character within the Chilterns.

Landscape character areas

The Countryside Character Map identifies four **regional character areas** within the boundaries of South Oxfordshire (see Figure 4):

- the Mid-vale Ridge;
- the Upper Thames Clay Vale;
- the Chilterns;
- the Berkshire and Marlborough Downs.

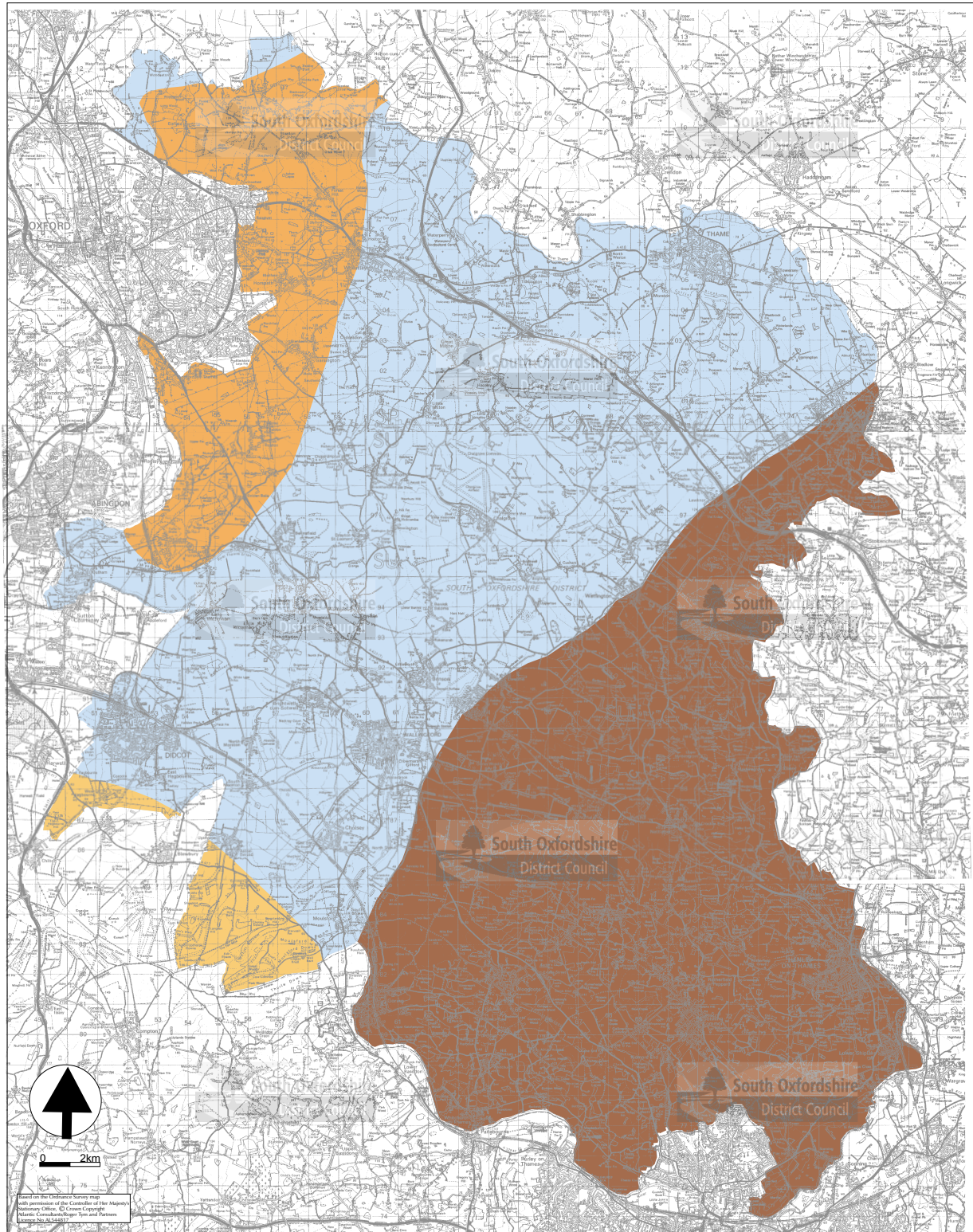
These conform to the main topographical and geological regions and provide the broad context for defining a total of eleven **local character areas** within the District. These are tracts of landscape which may be quite diverse in character but have some unifying or consistent elements which are related to their physical form or geographical location (see Figure 5), namely:

- the **Oxford Heights** - focused upon the northerly, higher hills of the Mid-vale Ridge which surround Oxford to the east, and including the fringing lowlands of Otmoor and the Rivers Ray and Thame;
- the **Nuneham Courtney Ridge** - comprising the southerly part of the low limestone hills of the Mid-vale Ridge, which appears as a prominent spur of higher land above the

River Thames which bounds it to the west and south;

- the **Clay Vale** - embracing the low-lying, gentle landscape which overlies the Gault Clay across the centre of the District;
- the **River Thames Corridor** - the flat, low-lying alluvial land which forms the corridor of the River Thames between Long Wittenham and Goring and includes the lower reaches of its main tributary, the River Thame;
- the **Eastern Vale Fringes** - the easterly part of the 'shelf' of Lower Chalk and Upper Greensand which forms a belt of higher rolling ground between the low-lying vale and the steep Chilterns escarpment;
- the **Central Vale Fringes** - the continuation of the Chalk shelf, sandwiched between the Chilterns escarpment and the central clay vale and Thames Valley, focused upon the denuded arable landscapes around Ipsden;
- the **Wessex Downs and Western Vale Fringes** - a tract of mixed landscape lying between the River Thames and the District boundary at the western end of the clay vale, comprising an area of low-lying land encircled by the chalk hills of the Wessex Downs and the outlying Sinodun Hills;
- the **Chilterns Escarpment** - the distinctive north-west facing slopes and top of the Chilterns escarpment;
- the **Chiltern Ridges and Valleys** - the heavily incised dip slope of the Chiltern hills to the north-west of Henley, which forms a distinctive landscape of ridges and valleys;
- the **Chilterns Plateau and Valleys** - the southern part of the Chilterns dip slope formed by a gently dipping plateau dissected by an irregular pattern of shallow valleys;
- the **Thames Valley and Fringes** - focused upon the corridor of the River Thames around the southern fringes of the Chilterns, including the flat valley floor, the steep valley sides below Goring and the more gentle slopes between Caversham and Henley.

'NEW MAP OF ENGLAND' CHARACTER AREAS



KEY

- 108 Upper Thames Clay Vale
- 109 Mid-vale Ridge
- 110 Chilterns
- 116 Berkshire and Marlborough Downs

More detailed descriptions of the individual character areas are given in Part Two.

Landscape Types

Although the character areas have a definable physical context and coherent identity, they are inevitably quite diverse in themselves. Even subtle differences in landform, land-use, landscape structure, the degree of visual enclosure and the influence of built development or specific land uses, can create variations in landscape character and local distinctiveness.

Landscape types are classified into the following groups, reflecting broad distinctions in landscape character but with sub-types reflecting degrees of character variation within them:

- **Chiltern** landscapes;
- **Downs and vale fringe** landscapes;
- **Clay vale** landscapes;
- **Mid-vale ridge** landscapes;
- **Floodplain** landscapes;
- **Parkland** landscapes;
- **Other** landscapes related to specific land uses.

Chiltern landscapes

There are several landscape types which are unique to the Chilterns. These include:

- the *escarpment* landscapes, distinguished by their dramatic landform and 'semi-natural' vegetation, sub-divided into open grassland and enclosed, wooded sections;
- the *dipslope* landscapes, distinguished by a complex landform of plateau, ridge and valleys and an enclosed, intimate and well-wooded character, with only a few localised areas of more open farmland;
- small areas of *commons and heaths*, with a distinctively open, 'communal' character.

Downs and Vale Fringe landscapes

These are the highly distinctive *downs* landscapes of the chalk or upper greensand, distinguished by their smoothly rounded landform of hills and shallow valleys, grey and flinty soils and typically large-scale field pattern.

The main type is sub-divided between areas which retain a landscape structure of hedges and trees and those which have been significantly denuded by intensive farming.

South Oxfordshire Landscape Types:

Chiltern landscapes

- Open escarpment
- Enclosed escarpment
- Open dipslope
- Semi-enclosed dipslope
- Wooded dipslope
- Commons and heaths

Downs and Vale Fringe landscapes

- Open rolling downs
- Semi-enclosed rolling downs

Clay Vale landscapes

- Undulating open vale
- Undulating, semi-enclosed vale
- Undulating wooded vale

Mid-vale Ridge landscapes

- Open farmed hills and valleys
- Semi-enclosed farmed hills and valleys
- Wooded hills and valleys

Floodplain landscapes

- Flat open farmland
- Flat, semi-enclosed farmland
- Flat floodplain pasture
- Floodplain wetland

Parkland landscapes

- Parkland and estate farmland

Other landscapes

- Amenity landscapes
- Minerals/landfill sites
- Airfields/MOD sites
- Institutions

Clay Vale landscapes

The *vale* landscape is characterised by a patchwork of arable fields and pastures, hedgerows, trees and woodland blocks typical of much of lowland England. It is distinguished from other parts of the District by its subdued and low-lying relief which sets it apart from the pronounced landform of the Chilterns, Mid-vale ridge, downs and vale fringe landscapes and the very flat floodplain farmland. Sub-divisions reflect differences between very open, denuded farmland to landscapes with an enclosed character and those with a strong structure of woodland.

Mid-vale Ridge landscapes

These landscapes contain similar elements to those of the clay vale but are distinguished by a distinctive landform of hills and valleys. Again, the main sub-divisions within this type reflect differences in landscape structure and the degree of enclosure provided by hedgerows, trees and woods.

Floodplain landscapes

These landscapes occupy the 'natural' floodplains of the main river systems within the District and are distinguished by their extremely flat relief and low-lying character (mostly below 60m AOD) with a propensity to flooding. They are sub-divided between:

- *flat farmland* which has been drained, cultivated and is intensively farmed, with an open or semi-enclosed character;
- *flat floodplain pasture* with a pastoral and riparian character and distinctive network of willow-lined ditches;
- *floodplain wetlands*, areas of open water which have been created as a result of sand and gravel extraction within the river corridor.

Parkland landscapes

These are highly distinctive landscapes associated, in the main, with large country houses and estates where a formal or designed character has been imposed upon the underlying landscape. They include the formal designed

landscapes of the C18, with their parkland trees, avenues, woods, lakes and other formal features, as well as areas of 'estate' farmland which have a mature, well-managed and usually well-wooded character.

Other landscapes

These represent areas of landscape where the underlying character is overwhelmed by specific land uses or management regimes to produce distinctive landscape types. They include:

- *amenity* landscapes, such as golf courses and playing fields, which have an intensively managed character, often unrelated to their landscape context;
- *minerals and landfill sites*, where the landscape is in the process of being physically altered through quarrying, tipping or restoration;
- active or disused *airfields*, with a highly distinctive character of flat open landscape, large-scale sheds, security fencing etc.;
- large-scale *institutions*, such as Culham laboratories, which comprise large institutional buildings within landscaped grounds.

Figure 6 illustrates the distribution of these landscape types across the District as a whole and further details of their distinguishing features are given within the individual character area descriptions. It is important to emphasise, however, that the 'grain' of characterisation within a District-wide assessment is too coarse to map the more localised variations in character that will inevitably occur, especially around the fringes of settlements. It is also important to note that only the general extent of the larger settlements, ie. those with a population greater than approximately 3,000, have been excluded from the landscape types. This means that many landscape types will include settlements and areas of built form which will not appear within the landscape type description.