

3 Baseline Information

Introduction

- 3.1 Baseline information provides the basis for predicting and monitoring the likely sustainability effects of a plan and helps to identify key sustainability issues and means of dealing with them.
- 3.2 Annex 1 of the SEA Directive requires information to be provided on:
- (a) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan;*
 - (b) the environmental characteristics of areas likely to be significantly affected;*
 - (c) any existing environmental problems which are relevant to the plan including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC [the 'Birds Directive'] and 92/43/EEC [the 'Habitats Directive'].*
- 3.3 Baseline information that was collated for the SA of the adopted Local Plan Part 1 has been used as the starting point. However, in the December 2015 SA Scoping Report, and in this SA Report, it has been revised and updated to make use of the most recent available information sources, and sources have been referred to in footnotes.
- 3.4 Data referred to has been chosen primarily for regularity and consistency of collection, in order to enable trends in the baseline situation to be established, and also subsequent monitoring of potential sustainability effects. All figures are presented at the end of the Baseline Section.
- 3.5 Given that the SA of the Local Plan Part 1 Partial Review will be focusing on the potential effects of site options and policies relating to development within Cherwell District (albeit to meet a portion of Oxford's unmet housing need as explained in Chapter 1), this chapter sets out the baseline information relating to Cherwell District, as well as the key baseline information that relates to Planning and key issues in Oxfordshire and Oxford City which is described below.
- 3.6 Map-based information on how the locational options relate to Oxford and further baseline information generally has been gathered as the SA has progressed in order to inform judgments on how well different locations for housing development perform against the SA objectives and criteria (details of how each Area of Search and Site has been assessed against each SA objective can be found in **Appendix 2**). All figures referred to in this chapter can be found at the end of the chapter.

Cherwell District baseline

Geography

- 3.7 Cherwell District has an area covering approximately 228 square miles and is situated in the north of Oxfordshire. It has excellent transport links with London and Birmingham.
- 3.8 The District shares boundaries with Oxford City, South Oxfordshire, Vale of White Horse, West Oxfordshire, Aylesbury Vale, South Northamptonshire and Stratford upon Avon districts. The M40 runs through the District and there are good rail connections to Birmingham, London and beyond.
- 3.9 The District's settlement hierarchy is dominated by the towns of Banbury and Bicester in the north and south respectively. The third largest settlement is Kidlington which is both an urban centre and a village and is surrounded by the Oxfordshire Green Belt but is excluded from it. The rest of the District is largely rural in character and Cherwell has over 90 smaller villages and hamlets.

Climate Change, Energy Consumption and Energy Efficiency

- 3.10 Climate change has the potential not only to affect the environment, but also the social and economic aspects of life in Cherwell.
- 3.11 The latest DECC figures¹⁹ are set out in **Table 3.1** and show generally gradually decreasing trends for CO₂ emissions (tonnes) per capita in Cherwell from 2005-2014. The decreasing trend in emissions reflects the decrease in overall emissions for the UK during this period driven mainly by reductions in emissions from power stations, industrial combustion and passenger cars. During the period 2005 to 2014 total emissions per capita in Oxfordshire fell from 9.5t CO₂ to 7.1t CO₂. The reduction from power stations is driven by change in the fuel mix used for electricity generation with a reduction in the amount of coal which is a carbon intensive fuel. The reduction in industrial combustion is largely driven by the closure or reduced activity of industrial plants, a large portion of which occurred during 2009 likely due to economic factors. Emissions for many Local Authorities are heavily influenced by activities at industrial sites, and changes at a single site can have a big impact on emissions trends²⁰.
- 3.12 The Cherwell Annual Monitoring Report²¹ reports 12 planning permissions were approved for renewable energy schemes in the District in 2015/2016, all for solar photovoltaics (PVs). In the same period of time in Cherwell energy consumption saw a gradual fall from 5,706.3 GWh for all fuels in 2005 to 4,632.8 GWh for all fuels in 2014. During 2014, the most significant contributor to the overall consumption of fuel in the District was petrol used for road travel. The level of consumption from this source fell from 2,210.1 GWh in 2005 to 2,074.7 GWh in 2014. In England as a whole there was a sizeable decrease in consumption of fuel over the same eight year period. In 2005, consumption of all fuels was recorded as 1.420 million GWh and this fell to 1.185 million GWh in 2014.²²

Table 3.1: Source of CO₂ Emissions in Cherwell per Sector (2005-2014)²³

Year	Industry and Commercial (t CO ₂ per person)	Domestic (t CO ₂ per person)	Transport (t CO ₂ per person)	Total (t CO ₂ per person)
2005	4.4	2.5	5.1	12.2
2006	4.4	2.6	5.1	12.2
2007	4.1	2.5	5.1	11.8
2008	3.9	2.4	4.8	11.2
2009	3.6	2.2	4.5	10.4
2010	4.1	2.3	4.5	11.0
2011	3.6	2.0	4.4	10.1
2012	3.7	2.2	4.4	10.3
2013	3.9	2.1	4.3	10.4
2014	3.0	1.8	4.3	9.0

Landscape

- 3.13 Cherwell's natural environment is varied. There are no National Parks within the District; however, the Cotswolds AONB lies within the north-west, as shown in **Figure 3.1: Landscape Designations**.

¹⁹ 2005-2014 UK local and regional CO₂ emissions full dataset. DECC. (Published June 2016) (<https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2014>)

²⁰ Local Authority carbon dioxide emissions estimates 2014. Statistical Release. DECC, June 2016. (<https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2014>)

²¹ Cherwell Annual Monitoring Report (2016) Cherwell Local Development Framework

²² Sub-national total final energy consumption statistics: 2005-2014. DECC (<https://www.gov.uk/government/statistical-data-sets/total-final-energy-consumption-at-regional-and-local-authority-level-2005-to-2010>) Last updated September 2015

²³ 2005-2014 UK local and regional CO₂ emissions full dataset. DECC (<https://www.gov.uk/government/statistics/uk-local-authority-and-regional-carbon-dioxide-emissions-national-statistics-2005-2014>) (Published June 2016)

- 3.14 Cherwell lies within five of the Oxfordshire Character Areas that occur mostly in horizontal east-west strips across the District (see **Figure 3.1**): Northamptonshire Uplands to the north, both the Cotswolds and Upper Thames Valley Character Areas form the central strips, Midvale ridge to the south-east and Northamptonshire Vales to the north-east²⁴. There are also 19 landscape types within Cherwell²⁵, the four predominant types are: Wooded Estatelands and Farmland Plateau to the north of Bicester; the Clay Vale to the south; and three areas of Upstanding Village Farmlands to the south of Banbury with four further small pockets to the north-east of the District.
- 3.15 Approximately 14% of the District lies within the Oxford Green Belt to the south which surrounds the urban area of Kidlington. The location of the Green Belt within Cherwell is illustrated in the Local Plan Part 1 Review. The area has been subject to development restraint due to the protection provided to Green Belts by national policy and in the mid-1990s, Oxford City Council released areas in the Green Belt for housing and employment uses e.g. Northern Gateway²⁶. Today there is debate whether land should be removed from the Green Belt (including locations in Cherwell) in order to deliver development requirements. The 2015 Oxford Green Belt Study recommends that local authorities should undertake careful master planning of development so that harm is minimised. In addition, Cherwell District Council has commissioned a study of the Green Belt within the District to inform the identification of preferred sites for allocation in the Part 1 Partial Review. Building on the Oxford Green Belt Study, all site options have been assessed against the five purposes of Green Belt highlighting where development would minimise potential harm to the wider Green Belt and to enhance potential beneficial use of Green Belt.
- 3.16 A number of documents have considered development in the District's rural landscape and urban fringes and these informed Cherwell's Adopted Local Plan Part 1, including:
- The 2010 Halcrow Report undertook a Landscape Sensitivity and Capacity Study²⁷ assessed the sensitivity to and capacity of specified sites at Banbury, Bicester to accept development, specifically: residential; employment (commercial and industrial); recreation; and woodland. In general, most sites have a high capacity to accept woodland of an appropriate character and a moderate to high capacity to accept informal recreation. The capacity to accept residential and employment or playing field developments was more variable.
 - The Bicester and Banbury Landscape Sensitivity and Capacity Assessments²⁸ provided an assessment of the landscape sensitivity and capacity of ten sites on the periphery and within the two towns. The reports reviewed the sites' boundaries and where necessary, provided opinion and rationale on areas to either be excluded as they were not appropriate to be considered for development, or additional areas to be included.
 - The Environmental Baseline Reports for Banbury²⁹ and Bicester³⁰ explored the interaction of these towns with their rural setting and the environmental baseline of their urban fringes. Through understanding the towns' environmental assets, this document provided a foundation that guided development away from sensitive areas in the urban fringes. The Landscape Character Sensitivity and Capacity Assessment of Local Plan Part 1 Partial Review Site Options³¹ prepared by WYG on behalf of Cherwell District Council in 2016 and 2017. The assessment identifies the landscape character sensitivity and capacity of each site option for residential, employment (commercial and industrial), recreational and woodland land uses.

²⁴ Regional Character Areas. Oxfordshire Wildlife and Landscape Study. (<http://owls.oxfordshire.gov.uk/wps/wcm/connect/occ/OWLS/Home/Oxfordshire+Regional+Character/>) Accessed 14th February 2017

²⁵ Cherwell Landscape Types. Oxfordshire Wildlife and Landscape Study. (<http://owls.oxfordshire.gov.uk/wps/wcm/connect/occ/OWLS/Home/Oxfordshire+Districts/Oxfordshire+Districts++Landscape+Types/Cherwell+Landscape+Types/>) Accessed 14th February 2017

²⁶ Oxford Green Belt Study (2015) LUC (<http://modgov.cherwell.gov.uk/ecSDDisplay.aspx?NAME=Oxford%20Green%20Belt%20Study&ID=426&RPID=7460879&sch=doc&cat=13638&path=13637%2c13638>)

²⁷ Cherwell Landscape Sensitivity and Capacity Assessment (2010) Halcrow Group Limited (<http://www.cherwell.gov.uk/index.cfm?articleid=9637>)

²⁸ Banbury Landscape Sensitivity and Capacity Assessment (2013 & 2014) WYG Group (<http://www.cherwell.gov.uk/index.cfm?articleid=9637>)
Bicester Landscape Sensitivity and Capacity Assessment (2013 & 2014) WYG Group (<http://www.cherwell.gov.uk/index.cfm?articleid=9637>)

²⁹ Banbury Environmental Baseline Report (2013) LDA Group (<http://www.cherwell.gov.uk/index.cfm?articleid=9637>)

³⁰ Bicester Environmental Baseline Report (2013) LDA Group (<http://www.cherwell.gov.uk/index.cfm?articleid=9637>)

³¹ Local Plan Part 1 Partial Review Landscape Character Sensitivity and Capacity Assessment (2016 & 2017) WYG Group

These assessments have been informed by on-site landscape, ecology and cultural heritage assessments.

Biodiversity

- 3.17 Cherwell District contains many areas of high ecological value including sites of international and national importance, as outlined below and shown in **Figure 3.2: Biodiversity Designations**. However, there are large parts of the District without formal designations or constraints. While the District is predominantly rural, its urban centres, parks and open spaces are just as much part of the local environment and provide important habitats for wildlife.
- 3.18 Cherwell contains one site of European importance; part of Oxford Meadows Special Area of Conservation (SAC) located in the south west corner of the District (the rest of the SAC lies within Oxford's boundary, approximately 1.5km to the north west of Oxford city). The SAC receives statutory protection under the Habitats Directive (Directive 92/42/EEC), transposed into UK national legislation in the Conservation of Habitats and Species Regulations 2010 (the Habitats Regulations) due to its lowland hay meadow habitats, potentially unique vegetation communities and existence of creeping marshwort³².
- 3.19 Sites of national importance comprise SSSIs and National Nature Reserves. Cherwell District has 18 SSSIs but does not contain any National Nature Reserves³³. Sites of regional/local importance comprise Local Geological Sites (LGSs), Local Nature Reserves (LNRs), non-statutory nature reserves and other sites of importance for nature conservation including Local Wildlife Sites (LWSs- formerly known as County Wildlife Sites), ancient woodland, aged or veteran trees and NERC Act S41 Habitats of Principal Importance. Cherwell contains 3 LNRs and 79 Local Wildlife Sites (completely or partly within the District). Nine sites were surveyed in 2014 and considered by the Local Wildlife Sites panel in 2015. Two sites had extensions to existing Local Wildlife Sites accepted: Bicester Airfield and Quarry Spring Marsh. This has led to an increase in the amount of Local Wildlife Sites in the District from 923 ha to 1,035 ha, an increase of 130 ha. The area of Local Geological Sites remains the same for 2015 with 139 ha³⁴, shown in **Figure 3.3: Geological Designations**. Sites of regional/local importance also include the habitats of those species of principal importance for biodiversity (as identified in Section 41 of the NERC Act).
- 3.20 Cherwell District Council commissioned WYG to provide ecological support to inform the Council's work on the Local Plan Part 1 Review. The Study focusses on the potential cumulative impacts of seven sites identified around the villages of Kidlington, Begbroke, Yarnton and Woodstock, to the north of Oxford, specifically on ecological features and designations such as the Rushy Meadows SSSI. The Study concludes that the proposed site allocations have the potential to generate cumulative adverse effects on Rushy Meadow SSSI as a result of:
- Dumping, spreading and discharging of materials during the construction and operational phases of the development.
 - Burning during the operational phase of the development.
 - Disturbance of wild animals by wild, feral or domestic animals during the operational phase of the development.
 - The destruction, displacement, removal or cutting of any plant or plant remains, including tree, shrub herb, dead or decaying wood, moss, lichen, fungus, leaf-mould and turf.
 - The changing of water levels and tables and water utilisation (including irrigation and storage and abstraction from existing water bodies and through boreholes).
 - Recreational and other activities likely to damage features of interest.
 - Noise disturbance to wildlife present in the SSSI including nesting birds.
 - Light spillage during construction towards the SSSI and impacting nocturnal species likely to be present e. bats, badger, hedgehog etc.

³² Habitats Regulations Assessment: Stage 1 – Screening (2014) Atkins (<http://www.cherwell.gov.uk/index.cfm?articleid=9637>)

³³ Magic Map (<http://magic.defra.gov.uk/MagicMap.aspx>) Accessed 14th February 2017

³⁴ Cherwell Annual Monitoring Report (2016) Cherwell Local Development Framework (http://www.cherwell.gov.uk/media/pdf/6/i/Final_2015_AMR_for_website.pdf)

- Increased run-off (from built-up areas and roads).
- Increased light spillage towards the SSSI from street and residential lighting impacting nocturnal species likely to be present such as bats, badger, hedgehog etc.

Historic Environment

- 3.21 There are many heritage designations within the District as shown in **Figure 3.4: Heritage Designations**. Cherwell has many attractive villages from those consisting of ironstone and thatch in the north to the southern limestone and stone slate villages. Many of these areas have been designated as Conservation Areas to protect their character and appearance. Banbury and Bicester centres and the historic parts of Kidlington, as well as much of the length of the Oxford Canal have also been designated. There are 60 Conservation Areas in Cherwell, 56 of which have Conservation Area Appraisals available for them. Two of the Conservation Areas (Banbury Grimsbury, North Oxfordshire and RAF Upper Heyford, Ardley) have been identified as being on the Heritage at Risk List by Historic England. The District has 2,331 Listed Buildings, four of which are on the Heritage at Risk Register³⁵:
- Church of St Edburg, Church Street, Bicester (Listed Place of Worship grade I)
 - Church of St Mary the Virgin, Church Lane, Cropredy (Listed Place of Worship grade I)
 - Church of St Mary, Church Lane, Kirtlington (Listed Place of Worship grade II*)
 - Church of St Mary, Horse Fair, Banbury (Listed Place of Worship grade I)
- 3.22 The District has 36 Scheduled Monuments, five of which are on the Heritage at Risk Register³⁶:
- Ilbury Camp hillfort, Deddington
 - Islip Roman villa, 300m east of Hillside Farm, Islip
 - Ruins of Hampton Gay Manor House, Hampton Gay and Poyle
 - Defence and ancillary structures at RAF Bicester, Bicester, Launton
 - Blenheim Villa, a Roman villa and associated field system 200m north east of Little Cote, Shipton-on-Cherwell and Thrupp at Woodstock
- 3.23 There are also ten sites which are included in the 'Register of Historic Parks and Gardens of Special Historic Interest in England'. Cherwell contains one Historic Battlefield which is the Battle of Cropredy Bridge 1644.
- 3.24 The Blenheim Palace World Heritage Site lies directly to the west of the Cherwell District boundary within West Oxfordshire.
- 3.25 **Figure 3.5** illustrates the **Historic Landscape Classifications** mapped across the District. This illustrates that the District is dominated by historic agricultural enclosures. Bicester and Banbury are identified as the District's two historic urban areas, where as Kidlington and Yarnton represent the District's two largest historic rural settlements. Other notable historic features include the Cherwell Valley and the chain of ornamental parks and gardens that run from Kidlington in the south north-eastwards towards Brackley and Buckingham.
- 3.26 The Oxford City Core Strategy 2026 describes the Oxford Green Belt as "*an area of undeveloped land...that helps to retain the distinctive physical form of the City, where the river corridors running either side of Oxford's historic core are an essential part of its special character and landscape setting.*" The Oxford Green Belt Study³⁷ concluded that the Green Belt land close to the urban area of Oxford, from which there are views into and out of the City generally rated higher in its contribution to the setting and special character of the historic city.

³⁵ Heritage at Risk. Historic England. (<https://historicengland.org.uk/advice/heritage-at-risk/>) Accessed 14th February 2017

³⁶ Heritage at Risk. Historic England. (<https://historicengland.org.uk/advice/heritage-at-risk/>) Accessed 14th February 2017

³⁷ Oxford Green Belt Study, LUC, 2016

Air Quality

- 3.27 The Environment Act 1995 introduced the National Air Quality Strategy and the requirement for local authorities to determine if statutory air quality objectives (AQOs) are likely to be exceeded. All local authorities now report to DEFRA on an annual basis, and have the obligation to declare Air Quality Management Areas (AQMAs) and develop action plans for improvement of air quality if objectives are likely to be exceeded.
- 3.28 Air quality throughout the District is generally good. Nitrogen dioxide and particulate (fine dust) concentrations in the AQMAs are above national air quality objectives; however, these concentrations are trending downwards in most places across Cherwell, including within the AQMAs³⁸.
- 3.29 The Council has designated four AQMAs³⁹:
- AQMA 1 is an area around Hennef Way, Banbury.
 - AQMA 2 is an area between Southam Road and Oxford Road, Banbury, including some of High Street.
 - AQMA 3 is an area of Bicester Road, Kidlington.
 - AQMA 4 is an area around Kings End, Queens Avenue, Field Street and St Johns, Bicester.
- 3.30 Oxford City in its entirety is an AQMA.
- 3.31 Cherwell District Council has developed an Air Quality Action Plan to improve air quality in the District and protect health, particularly the four air quality management areas. This plan was approved by Cherwell's Executive in March 2017. This document will also contribute toward managing the effects of poor air quality of the Oxford Meadows Special Area of Conservation (SAC) located in the south west corner of the District (the rest of the SAC lies within Oxford's boundary, approximately 1.5km to the north west of Oxford city.)

Water

- 3.32 There are a number of water courses in Cherwell as shown in **Figure 3.6: Hydrology** and Cherwell District falls within four major river catchments being: The River Thames, The River Great Ouse, The River Cherwell and The Warwickshire Avon Catchment. The District's major urban and rural development areas are within the Upper Thames catchment. The predominant risk of flooding within Cherwell is due to flooding from rivers and watercourses⁴⁰.
- 3.33 The River Cherwell's source is at Charwelton in Northamptonshire. The river's course generally flows from north to south through the centre of the District passing through Banbury, Upper Heyford, and Kidlington before flowing to Oxford where the River Cherwell meets the River Thames. Land use across the catchment is predominately rural (less than 2% of the catchment is classified as 'urban') and includes the two main urban centres of Banbury and Bicester.
- 3.34 In February 2016, the Environment Agency published regional 'Climate Change Allowances' for flood risk.⁴¹ The climate change allowances are predictions of anticipated change for:
- peak river flow by river basin district;
 - peak rainfall intensity;
 - sea level rise; and
 - offshore wind speed and extreme wave height.

³⁸ 2016 Air Quality Annual Status Report. Cherwell District Council. (<http://www.cherwell.gov.uk/airqualitymanagement>)

³⁹ See locations and monitoring reports at: <http://www.cherwell.gov.uk/airqualitymanagement>

⁴⁰ Sequential Test and Exception Test (Flooding): Strategic Sites. (2014). Cherwell District Local Plan. (<http://www.cherwell.gov.uk/index.cfm?articleid=9637>)

⁴¹ Climate change Flood Risk Allowances. Environment Agency. (<https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>) Accessed 14th February 2017

- 3.35 They are based on climate change projections and different scenarios of carbon dioxide (CO₂) emissions to the atmosphere. There are different allowances for different epochs or periods of time over the next century. The total potential change in peak river flow allowance at the upper end of the Thames River Basin is as follows:
- '2020s' (2015 to 2039) – 25%
 - '2050s' (2040 to 2069) – 35%
 - '2080s' (2070 to 2115) – 70%
- 3.36 The peak rainfall intensity allowance in 'Central' small and urban catchments within England is as follows:
- '2020s' (2015 to 2039) – 5%
 - '2050s' (2040 to 2069) – 10%
 - '2080s' (2070 to 2115) – 20%
- 3.37 Cherwell's Level 1 Strategic Flood Risk Assessment Update⁴² (SFRA) highlights that there are significant areas of the District at risk of:
- Fluvial flooding, including:
 - Much of the River Cherwell through Banbury.
 - The fields surrounding the river Cherwell to the north east of Kidlington.
 - Land adjacent to the river Ray in the south of the District.
 - Pluvial flooding within impermeable urban areas and along watercourses, including:
 - Kidlington – several locations along the A4260, Mill Street, Mill end, Queen's Avenue, the High Street, Langford Lane, and Thrupp Village.
 - Launton, including Launton Road in Bicester.
 - Wendlebury
 - Cropredy
 - Banbury
 - Tadmarton
 - Bloxham
 - Groundwater flooding, including:
 - The north of the District which is predominantly underlain by clay than can be vulnerable to flash run-off.
 - Areas affected by high water tables, such as Mollington.
 - Low-lying flatter areas in the south of the District, such as south-west Bicester, Merton and Charlton-on-Otmoor.
- 3.38 Cherwell District Council also commissioned a Level 2 SFRA to highlight specific flood risk issues in relation to eight potential strategic development sites within Begbroke, Islip, Kidlington and Yarnton.
- 3.39 The Water Framework Directive (WFD) objectives are to prevent deterioration of waterbodies and to improve them such that they meet the required status for that given waterbody (rivers, lakes, estuaries, coastal and groundwater). The latest Thames River Basin Management Plan⁴³ identifies the priority issues in the Cherwell catchment to be diffuse pollution from agricultural run-off, pollution from wastewater (including from sewage treatment works) and heavily modified channels.

⁴² Cherwell DISTRICT Council Level 1 and 2 Strategic Flood risk Assessment (SFRA) Update, AECOM, 2017

⁴³ Thames River Basin Management Plan 2009. Environment Agency. (Updated 2015)
(<https://www.gov.uk/government/publications/thames-river-basin-district-river-basin-management-plan>)

- 3.40 The District is underlain by Principal, Secondary A and Secondary (undifferentiated) Aquifers. 23 river water bodies and one lake within the Cherwell catchment. Two are artificial or heavily modified. Over a half (58%) of the water bodies currently achieve moderate or better ecological status/potential. Only 10 water bodies in the Cherwell catchment currently achieve poor ecological status/potential. The main reasons for less than good status are due to pollution from wastewater, pollution from rural areas and physical modifications⁴⁴.
- 3.41 Water abstraction impacts vary across the Cherwell catchment. The Upper Cherwell catchment supports abstractions for public water supply at Banbury and from the Sor Brook at Adderbury, as well as licensed extractions for agricultural purposes and supporting the Oxford Canal. As a result, low flows occur upstream of the Sor Brook confluence, so measures such as increasing water efficiency are proposed.
- 3.42 Cherwell District Council's Water Cycle Study⁴⁵ assesses proposed future development with regards to water supply capacity, wastewater capacity and environmental capacity. The Study identifies that 12 Wastewater Treatment Works (WwTW) will serve any proposed future development across the District. When considering growth from Cherwell District (and estimates of growth from neighbouring Districts with shared WwTW infrastructure), three WwTW (Cassington, Oxford and Bicester) do not currently have sufficient capacity to accept wastewater from all future development proposed within the plan period. Additionally, future discharges from a further six WwTWs (Banbury, Bloxham, Hook Norton, RAF Upper Heyford, Cassington and Woodstock) could potentially result in significant water quality impacts on receiving water if the treatment capacity is utilised due to the currently planned levels of growth. Therefore, solutions are required at these nine WwTW to ensure that the increased wastewater flow discharged does not impact on the current quality of the receiving watercourses, their associated ecological sites and to ensure that the watercourses can still meet with legislative requirements. The WCS has demonstrated that feasible treatment solutions in the form of WwTW upgrades or infrastructure changes are achievable at each of the WwTW to ensure there would be no impact on Water Framework Directive (WFD) status and no adverse impact on hydrologically linked ecological sites. Of the nine WwTW assessed, only one WwTW was considered to have no capacity to accommodate any of the additional demand as a result of new development within its catchment: Oxford WwTW. Consequently, development in close proximity to Oxford will need to be carefully phased and potentially contribute to network upgrades. The Study concludes that there is adequate planned water supply resource to cater for growth over the plan period.

Soils

- 3.43 The Agricultural Land Classification (ALC)⁴⁶ system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The principal factors influencing agricultural production are climate, site and soil. These factors together with the interactions between them form the basis for classifying land into one of five grades, where 1 describes land as excellent (land of high agricultural quality and potential) and 5 describes land as very poor (land of low agricultural quality and potential). Land falling outside of these scores is deemed to be 'primarily in non-agricultural use', or 'land predominantly in urban use'.
- 3.44 The majority of land within Cherwell is grade 3 (good to moderate) and in the north of the District grade 2 (very good) as shown in **Figure 3.7: Agricultural Land Classification**. The two urban centres of Banbury and Bicester are classified as non-agricultural land as they are in urban use. Additionally, there are four pockets of non-agricultural use that is classified as 'other land primarily in non-agricultural use'. The remaining areas of land within the District are classified as grade 4 (poor quality). There are no areas of grade 1 (excellent) or grade 5 (very poor) within Cherwell.

⁴⁴ Cherwell. Catchment Data Explorer. (2015) (<http://environment.data.gov.uk/catchment-planning/OperationalCatchment/3079>) Accessed 14th February 2017

⁴⁵ Cherwell Water Cycle Study, AECOM, April 2017

⁴⁶ Agricultural Land Classification: protecting the best and most versatile agricultural land (TIN049). Natural England(2012) (<http://publications.naturalengland.org.uk/publication/35012>)

- 3.45 A local survey of agricultural land has been undertaken where six grades have been identified (the same as before, but grade 3 is split into grade 3a and grade 3b), however, only limited areas have been surveyed in Cherwell as shown in **Figure 3.8: Local Agricultural Land Classification**. Surveyed areas in Bicester's periphery and Banbury's southwest periphery are mainly grade 3a. The surveyed areas surrounding the town of Banbury are a mix of grade 3a, grade 3b and grade 2.

Mineral resources

- 3.46 The natural environment in Cherwell also plays a role in minerals supply. Sand and gravel is the most common mineral resource across Oxfordshire and typically found in river valley deposits, particularly along the River Thames which runs north south through the District and its tributaries. Limestone and ironstone are found mainly in the north and west of the county; they are used primarily as crushed rock aggregate but also for building and walling stone.

Light pollution

- 3.47 The latest light pollution map for the Cherwell District⁴⁷ shows that it is the 103rd darkest District out of the 326 within England. Proportionally, Cherwell shares a similar light pollution distribution as Oxfordshire with around half of the District being in the darkest categories of light (under 0.25 NanoWatts/cm²/sr and between 0.25 and 0.5 NanoWatts/cm²/sr). The District has two distinct areas over Bicester and Banbury that are within the highest levels of light pollution in the county (greater than 32 NanoWatts/cm²/sr and between 16-32 NanoWatts/cm²/sr).

Resource Use/Waste and Recycling

- 3.48 In 2014/15, the District produced 59,163 tonnes of household waste⁴⁸ with a recycling rate of 54.8%. During 2013/14, Cherwell District ranked 39th out of 326 local authorities in England for recycling⁴⁹.
- 3.49 Residents of Cherwell are provided with three bins for the alternate week roadside collections; a blue bin for recycling; a brown food and garden waste bin, kitchen caddy; and a green bin for waste that goes to an ERF (Energy Recovery Facility)⁵⁰ located near Bicester⁵¹.

Population

- 3.50 In 2015, the population of Cherwell was approximately 145,600 and was almost evenly split between females (50.4%) and males (49.5%)⁵². The population is expected to increase to 166,000 by 2039⁵³.
- 3.51 The 2011 Census data indicates that Cherwell's population is mainly concentrated in the three urban centres: Banbury which has a population of 46,853 representing 33% of the total population of Cherwell; Bicester which has a population of 30,854 (22%); and Kidlington with a population of 13,723 (10%). The remaining population of 50,438 live in rural villages of varying sizes and makes up around 35% of the total population of Cherwell.

⁴⁷ England's Light Pollution and Dark Skies: Cherwell District (2016) CPRE and LUC (http://nightblight.cpre.org.uk/maps/?_ga=1.42454693.1282152547.1437577240) Accessed 14th February 2017

⁴⁸ Local authority collected waste generation from April 2000 to March 2015 (England and regions) and local authority data April 2014 to March 2015. DEFRA. (https://data.gov.uk/dataset/local_authority_collected_waste_management_statistics) Accessed 14th February 2017

⁴⁹ Local Authorities in England – Household Recycling Performance 2013/2014,, SITA (<http://www.sita.co.uk/downloads/HRP2013-14-PercentageOfTotalWasteArising.pdf>)

⁵⁰ Cherwell District Council - Rubbish and recycling collections (2016), (<http://www.cherwell.gov.uk/index.cfm?articleid=3556>) Accessed 14th February 2017

⁵¹ Ardely ERF (<https://viridor.co.uk/our-operations/energy/energy-recovery-facilities/ardley-erf/>) Accessed 14th February 2017

⁵² Nomis Labour Market Profile: Cherwell (2015) (<https://www.nomisweb.co.uk/reports/lmp/la/1946157323/report.aspx?town=cherwell#tabrespop>) Accessed 14th February 2017

⁵³ ONS 2014-based Subnational Population Projections with Components of Change (Births, Deaths and Migrations) for Regions and Local Authorities in England. (<https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/componentsofchangebirthsdeathsandmigrationforregionsandlocalauthoritiesinenglandtable5>)

- 3.52 The proportion of older people aged 65 and over in Cherwell was 15.3%. Banbury and Bicester had a below average proportion of older people and Kidlington was above average at 18.6%. ONS projections indicate that by 2033 the population of those aged over 65 in Cherwell will increase to 24%, which is likely to have planning and resources implications.
- 3.53 In 2011, the mean age of the Cherwell population was 38.9 years⁵⁴ which is the same as Oxfordshire but a slightly younger average population than England and Wales as a whole, where the average is 39.4 years. The census data also shows that, 15.3% of the resident population in Cherwell⁵⁵ was of retirement age (65 and over) compared with 15.9% in Oxfordshire and 16.6% in England and Wales.
- 3.54 In 2011, Cherwell had a population density of 2.4 persons per hectares⁵⁶, which is comparable to the Oxfordshire figure of 2.5 persons per hectare⁵⁷. The population density of Cherwell is much lower than the England and Wales average (3.7 persons per hectare), reflecting the largely rural nature of the District.

Housing

- 3.55 In 2011, Cherwell had around 56,728 dwellings⁵⁸. The latest figures show that 30.9% of all homes in Cherwell are owned outright, 38.4% are owned with a mortgage or a loan, 12.2% are socially rented and 14.6% are privately rented⁵⁹. This compares to national averages of 30.8% of households being owned outright, 32.7% owned with a mortgage or a loan, 17.6% being social renters and 15.3% being rented privately. Cherwell is therefore almost comparable with the national average for dwellings owned outright, but is lower than national average with dwellings with a mortgage or a loan. The District also has both less socially rented and privately rented dwellings compared to the national average.
- 3.56 Banbury has experienced a large increase in privately rented accommodation from 14% in 2001 to 22% in 2011. Cherwell has a lower than average rate of households with 1 or 2 bedrooms, 32% compared to 40% nationally.
- 3.57 Of the homes included in the 2011 census for Cherwell, 30% were detached, 35% were semi-detached, 23% were terraced, 11% were flats and 0.3% were caravans or other mobile or temporary structure⁶⁰. The Cherwell Strategic Housing Land Availability Assessment (SHLAA)⁶¹ states that the market is seeking a more mixed delivery of houses and developers agree that the market in Cherwell is mostly for two, three and four bedroom units on two storeys as the market for flats is low. In March 2015, there were 8,280 dwellings that had planning permission but were not yet built⁶².

⁵⁴ ONS (2011) Table KS102UK Age Structure. (<https://www.ons.gov.uk/census/2011census/2011censusdata/2011censusdatacatalogue>)

⁵⁵ ONS (2011) Table KS102UK Age Structure. (<https://www.ons.gov.uk/census/2011census/2011censusdata/2011censusdatacatalogue>)

⁵⁶ ONS (2011) Table KS101UK Usual Resident Population. (<https://www.ons.gov.uk/census/2011census/2011censusdata/2011censusdatacatalogue>)

⁵⁷ ONS (2011) Table KS101UK Usual Resident Population. (<https://www.ons.gov.uk/census/2011census/2011censusdata/2011censusdatacatalogue>)

⁵⁸ ONS (2011) Table KS402EW Tenure, local authorities in England and Wales. (<https://www.ons.gov.uk/census/2011census/2011censusdata/2011censusdatacatalogue>)

⁵⁹ ONS (2011) Table KS402EW Tenure, local authorities in England and Wales. (<https://www.ons.gov.uk/census/2011census/2011censusdata/2011censusdatacatalogue>)

⁶⁰ ONS (2011) Table KS401EW Dwellings, household spaces and accommodation type. (<https://www.ons.gov.uk/census/2011census/2011censusdata/2011censusdatacatalogue>)

⁶¹ Cherwell Strategic Housing Land Availability Assessment (2014) Peter Brett Associates (<http://www.cherwell.gov.uk/index.cfm?articleid=10056>)

⁶² Cherwell Annual Monitoring Report (2015) Cherwell Local Development Framework (<http://www.cherwell.gov.uk/index.cfm?articleid=9043>)

- 3.58 The District is within the Oxfordshire housing market area which is a high value market. Banbury has its own rural hinterland and housing market area which extends into South Northamptonshire and less so into West Oxfordshire and Warwickshire. London has a significant commuting influence. However, overall Oxfordshire is considered to be a coherent Housing Market Area. In 2012, the median house price in Cherwell was £216,000; which, although higher than the England median (£190,000), is lower than in Oxford and the rural areas. The 2014 Oxfordshire SHMA shows that house prices are cheaper in Bicester and Banbury in the north of the County, and that this is having the effect of helping first-time buyers to the market.
- 3.59 In October 2015, approximately 1,210 of dwellings were vacant, slightly down from 1,210 in October 2015⁶³. These figures compare favourably with the national average of 4.2% reported in 2011.
- 3.60 The Cherwell 2012 Strategic Housing Market Assessment (SHMA)⁶⁴ estimates that there will be 74,712 homes in 2031 which based on their estimates from 58,690 homes in 2006, equates to a 16,022 or 27% increase over the 25 year period, averaging almost 641 (1.1%) extra households per year. The Cherwell Annual Monitoring Report⁶⁵ notes that housing completions (net) in 2015/16 were 1,425 more than the completions for 2014/15 which were 946. However, with a housing shortfall, the Oxfordshire SHMA⁶⁶ shows that up to 1,090–1,190 additional homes per year are needed in Cherwell.
- 3.61 As house prices are relatively unaffordable for many households, 33% of housing delivered in Cherwell should be affordable. The latest figures⁶⁷ show that net affordable housing completions in 2015/16 were 322, which is an increase on 2014/15 figure of 191 and the 2013/14 of 140 net affordable homes. The Cherwell SHMA⁶⁸ also indicated the most appropriate proportions of market and affordable housing (by bedroom size) to meet housing requirements for 2031 where 5% should be one bedroom homes, 46% should be two bedroom homes, 44% should be three bedrooms / two bedrooms plus homes, 4% should be four bedroom homes and 1% should be five bedrooms homes.
- 3.62 Cherwell District Council are in the process of finalising their new Housing and Economic Land Availability Assessment (HELAA) which determines the suitability, availability and achievability of land for development. The HELAA study area comprises the built-up limits of the district's two towns, Banbury and Bicester, and Category A villages as set out in the adopted Local Plan 2011-2031 Part 1 (July 2015), as well as considering opportunities outside the built-up areas of these settlements.
- 3.63 Figures from the Oxfordshire SHMA⁶⁹ show that around 24,000 to 32,000 homes are needed between 2011 and 2031 to meet Oxford's housing need alone. However, due to its tight boundary, the city has a shortage of land suitable for housing to accommodate Oxford's housing need. The Oxford SHLAA 2014⁷⁰ found that the housing potential from all sites which have been assessed as suitable, available and achievable is 6,422 dwellings with an estimated windfall of 180 dwelling per year.

⁶³ Table 615 All vacant dwellings by local authority district, England, from 2004 (2015)

(https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/519505/LT_615.xls)

⁶⁴ Cherwell Strategic Housing Market Assessment – Review and Update 2012. (<http://www.cherwell.gov.uk/index.cfm?articleid=9639>)

⁶⁵ Cherwell Annual Monitoring Report (2016) Cherwell Local Development Framework.

(<http://www.cherwell.gov.uk/index.cfm?articleid=9043>)

⁶⁶ Oxfordshire Strategic Housing Market Assessment (2014) GL Hearn Limited.

(https://www.oxford.gov.uk/info/20201/oxford_growth_strategy/762/strategic_housing_market_assessment)

⁶⁷ Cherwell Annual Monitoring Report (2016) Cherwell Local Development Framework.

(<http://www.cherwell.gov.uk/index.cfm?articleid=9043>)

⁶⁸ Cherwell Strategic Housing Market Assessment – Review and Update 2012. (<http://www.cherwell.gov.uk/index.cfm?articleid=9639>)

⁶⁹ Oxfordshire Strategic Housing Market Assessment (2014) GL Hearn Limited.

(https://www.oxford.gov.uk/info/20201/oxford_growth_strategy/762/strategic_housing_market_assessment)

⁷⁰ Oxford's Housing Land Availability and Unmet Need Assessment (2014) URS.

(https://www.oxford.gov.uk/download/downloads/id/1720/shlaa_-_december_2014.pdf)

- 3.64 Furthermore, Oxford has overtaken London as the least affordable housing location in the UK with the average cost of buying a house in Oxford being more than 11 times the average salary of an Oxford worker⁷¹. The average price of a home sold in Oxfordshire in January 2013 was £260,000 which was over 70% above the national average. As such, there is a high demand for affordable housing within Oxford and the Oxfordshire SHMA⁷² projections indicate that 1,029 affordable homes are needed per year in the city.
- 3.65 A February 2017 survey by Lloyds identified that home affordability across UK cities is at its worst level since 2008. Oxford was the least affordable location for residential property in the UK with average house prices estimated at nearly 11 times the annual gross average earnings in the city (£36,033) at £385,372. This is a key issue and could lead to more people living outside the City including to the south of the Cherwell District and working in either Cherwell or Oxford but benefitting from more affordable residential accommodation in Cherwell.⁷³
- 3.66 In the last year the average property price in Banbury is estimated at £305,411, representing a total change in value of 0.46%, whilst the average property price in Bicester is estimated at £337,787 and £394,615 in Kidlington. These figures represent a value change of 2.85%, equivalent to £9,811 in Bicester, and 1.87%, equivalent to £7,305 in Kidlington.⁷⁴
- 3.67 With rising number of students for both of the universities in Oxford, there is also a rising need for the provision of student accommodation despite both universities increasing their number of bed spaces in university halls of residence⁷⁵. In December 2012, there were an estimated 3,508 Oxford University students and 3,836 Oxford Brookes University students living outside of University accommodation. Oxford City Council has agreed with each of the universities that the number of students living in the City outside of University-provided accommodation should be limited to 3,000.
- 3.68 The National Planning Policy Framework requires all local authorities to identify a five year housing land supply with an additional buffer of 5% (moved from later in the plan period). Cherwell District Council has produced a Strategic Housing Land Availability Assessment (SHLAA)⁷⁶ which is a technical study to assess the theoretical potential of sites in the District to accommodate future housing development. The Cherwell Annual Monitoring Report⁷⁷ states that the District currently has a 5.4 year housing land supply for the period 2016-2021 and when commenting on appeal decision throughout the year, inspectors have found that the Council meets the requirement of the National Planning Policy Framework.
- 3.69 The latest figures (March 2015) show that the total number of authorised pitches in Cherwell for Gypsies and Travellers was 61. Cherwell presently has a 2.9 year land supply for the period 2015-2020. There are currently 14 plots for Travelling Showpeople, although there are no future plots identified for Travelling Showpeople (this is to be addressed in the District's forthcoming Local Plan Part 2)⁷⁸.

Health

- 3.70 The health of the population in Cherwell is generally the same or better than the England average. The main health priorities for Cherwell are reducing obesity in children and adults, increasing physical activity, and improving access to screening programmes.⁷⁹

⁷¹ Oxford Growth Strategy (2013) and strategic joint working to meet Oxford's housing needs. Oxford Strategic Partnership. (<http://www.oxford.gov.uk/PageRender/decP/OxfordGrowthStrategy.htm>)

⁷² Oxfordshire Strategic Housing Market Assessment (2014) GL Hearn Limited. (https://www.oxford.gov.uk/info/20201/oxford_growth_strategy/762/strategic_housing_market_assessment)

⁷³ Strategic Economic Growth Study, GVA, March 2017

⁷⁴ Strategic Economic Growth Study, GVA, March 2017

⁷⁵ Oxfordshire Strategic Housing Market Assessment (2014) GL Hearn Limited.

(https://www.oxford.gov.uk/info/20201/oxford_growth_strategy/762/strategic_housing_market_assessment)

⁷⁶ Cherwell District Council Strategic Housing Land Availability Assessments (2013) Peter Brett Associates.

(<http://www.cherwell.gov.uk/index.cfm?articleid=10056>)

⁷⁷ Cherwell Annual Monitoring Report (2016) Cherwell Local Development Framework.

(<http://www.cherwell.gov.uk/index.cfm?articleid=9043>)

⁷⁸ Cherwell Annual Monitoring Report (2016) Cherwell Local Development Framework.

(<http://www.cherwell.gov.uk/index.cfm?articleid=9043>)

⁷⁹ Public Health England. Health Profile 2016 – Cherwell. (<http://fingertipsreports.phe.org.uk/health-profiles/2016/e07000177.pdf>)

- 3.71 The Oxfordshire Joint Strategic Needs Assessment⁸⁰ cites cancer as the leading cause of death in Oxfordshire. An estimated 60% of people aged 16 or over in Oxfordshire are classified as overweight or obese. Between 2007 and 2015, the number of deaths of older people (aged 75 and over) for circulatory diseases in Oxfordshire declined by 15%, while deaths from dementia more than doubled. Furthermore, the number and rate of people in Oxfordshire with depression or anxiety appears to have increased significantly in recent years. Oxfordshire has seen a significant increase in hospital admissions for alcohol related conditions in the 40-64 age group.
- 3.72 Deprivation in the District is significantly lower than average; however 10.8% of children (under 16) live in poverty⁸¹. Life expectancy for both men and women is slightly higher than the England average at 80.2 years for males and 83.3 years for females in Cherwell, compared to 79.5 years for males and 83.2 years for females in England⁸².
- 3.73 In Cherwell, there were 20.6 conceptions per 1,000 young people under 18 in 2014, compared with 24 nationally⁸³.
- 3.74 There are three hospitals within Cherwell District: Bicester Community Hospital, Horton General Hospital and the Foscoote Private Hospital. Oxford has a number of hospitals including the John Radcliffe.

Social Inclusion and Deprivation

- 3.75 The English Indices of Deprivation 2015⁸⁴ is a measure of multiple deprivations in small areas or neighbourhoods, called Lower-layer Super Output Areas (LSOA), in England. Seven domains of deprivation are measured: Income Deprivation; Employment Deprivation; Health Deprivation and Disability; Education, Skills and Training Deprivation; Crime: Barriers to Housing and Services; and Living Environment Deprivation. Each domain contains a number of indicators. The seven domains are combined to give a multiple deprivation score. There are 93 LSOAs in Cherwell⁸⁵, 32,844 LSOAs nationally.
- 3.76 For Local Authority areas, Cherwell is ranked 251st and Oxford is 166th for the multiple deprivation score (rank of average score) out of the 326 local authority areas in England (where 1 is most deprived and 326 is least deprived)⁸⁶. This means that compared with the rest of the country, Cherwell and Oxford are in the 35% least deprived areas. There is however evidence of disparity between the different parts of Cherwell District when looking at the assessment at small area level. There are no LSOAs in Cherwell that are in the top 10% least deprived, however the highest ranking (therefore most deprived) in Cherwell ranks 4,701 (approximately 14%) in the Banbury Grimsbury & Castle ward (Cherwell 004A).
- 3.77 Similarly, Oxford has areas of deprivation with 10 of Oxford's 83 neighbourhood areas among the 20% most deprived areas in England. These areas include the Leys, Rose Hill and Barton areas of the city⁸⁷.
- 3.78 The latest fuel poverty statistics⁸⁸ show that 8.3% of Cherwell households and 11.9% of Oxford's households were classified as being fuel poor in 2014. A fuel poor household is considered by the UK Government to be a household which has required fuel costs that are above average (the national median level) and were they to spend that amount, they would be left with a residual income below the official poverty line⁸⁹.

⁸⁰ Oxfordshire Joint Strategic Needs Assessment, Oxfordshire county Council, 2017

⁸¹ Public Health England. Health Profile 2016 – Cherwell. (<http://fingertipsreports.phe.org.uk/health-profiles/2016/e07000177.pdf>)

⁸² Public Health England. Health Profile 2016 – Cherwell. (<http://fingertipsreports.phe.org.uk/health-profiles/2016/e07000177.pdf>)

⁸³ Public Health England. Health Profile 2016 – Cherwell. (<http://fingertipsreports.phe.org.uk/health-profiles/2016/e07000177.pdf>)

⁸⁴ The English Indices of Deprivation (2015), DCLG. (<https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015>)

⁸⁵ The English Indices of Deprivation (2015), DCLG: File 1: Index of multiple deprivation.

(<https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015>)

⁸⁶ The English Indices of Deprivation (2015), DCLG: File 10: Local authority district summaries.

(<https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015>)

⁸⁷ Poverty and deprivation statistics. Oxford City Council.

http://www.oxford.gov.uk/PageRender/decC/Poverty_and_deprivation_statistics_occw.htm Accessed 15th February 2017.

⁸⁸ 2014 sub-regional fuel poverty data: low income high costs indicator (2016), DECC.

(<https://www.gov.uk/government/statistics/2014-sub-regional-fuel-poverty-data-low-income-high-costs-indicator>)

⁸⁹ Fuel Poverty Statistics. DECC. (<https://www.gov.uk/government/collections/fuel-poverty-statistics>) Accessed 15th February 2017.

Crime

- 3.79 The latest crime statistics⁹⁰ show that the crime rate in Cherwell is 60.28 per 1,000 of the population, which is above the wider Thames Valley force area of 52.04 per 1,000 of the population.
- 3.80 In the year ending March 2016, the burglary rate in Cherwell was lower than average at 3.81 per 1,000 of the population, compared to 4.74 per 1,000 of the population in the Thames Valley force area.

Education

- 3.81 The most recent statistics⁹¹ show that Cherwell has a higher proportion of residents that have no qualifications (6.5%) than that of the South East region (6.3%), but below the national average (8.6%).
- 3.82 During 2015/16, 58.7% of key stage 4 pupils in Oxfordshire achieved 5 GCSEs grades A-C, down from 59.7% in 2014/15.⁹² The proportion of adults in Cherwell who have attained qualification levels equivalent to NVQ level 4 (HND, Degree and Higher Degree level qualifications or equivalent) and above (36.0%) is slightly below the regional and national averages of 39.8% and 37.1% respectively⁹³.

Culture, Leisure and Recreation

- 3.83 All leisure activities contribute to the quality of life of residents, providing amenity and opportunities for enhancing intellectual, spiritual and physical wellbeing. Additionally, they represent a tourism asset and their provision can result in economic benefits to the District.
- 3.84 Cherwell has a range of cultural, leisure and recreational facilities which are used by both residents and visitors to the town including the Deddington Farmer's Market, Bicester Village (more than 130 outlet boutiques of British and international brands), Broughton Castle and Banbury Museum.
- 3.85 There are several green and open spaces within Cherwell as shown in **Figure 3.9: Recreation – Green and Open Space**. **Figure 3.9** also illustrates that there are a number of open spaces within Banbury, Bicester and Kidlington including country parks.
- 3.86 As a predominantly rural District, there is an extensive Public Rights of Way (PROW) network, as illustrated in **Figure 3.10: Recreation – PROW and Cycle Routes**. There are additionally two National Cycle network links; one to the south of Banbury and another to the north of Kidlington.
- 3.87 Recreational land can be under pressure for redevelopment.
- 3.88 There are a number of sporting pitches in the District; seven Artificial Grass Pitches, five football pitches and six hockey pitches⁹⁴. There are also nine pools within Cherwell spread across seven sites⁹⁵. Levels of participation in the five sports of gym, cycling, swimming, athletics and fitness classes extracted from the Sport England Local Profile Tool show that Cherwell has higher than average participation levels across all categories at a regional and national level. Consultation undertaken as part of the ongoing work to prepare Cherwell District Council's Open Space, Sport and Recreation, Assessment and Strategies⁹⁶ reveal the facilities and spaces that are used most often by residents and visitors. The facilities and services used most often by respondents included natural greenspaces, formal parks and gardens, swimming pools, children's playgrounds,

⁹⁰ Compare Your Area. Police.UK. (<https://www.police.uk/thames-valley/N426/performance/compare-your-area/>) Accession on 15th February 2017.

⁹¹ Nomis Labour Market Profile – Cherwell. (<https://www.nomisweb.co.uk/reports/lmp/la/1946157323/report.aspx?town=cherwell#>) Accessed 15th February 2017.

⁹² GCSE and equivalent results: 2015 to 2016 (provisional). Department for Education. (<https://www.gov.uk/government/statistics/gcse-and-equivalent-results-2015-to-2016-provisional>)

⁹³ Nomis Labour Market Profile – Cherwell. (<https://www.nomisweb.co.uk/reports/lmp/la/1946157323/report.aspx?town=cherwell#>) Accessed 15th February 2017.

⁹⁴ Sport England (2014) Strategic Assessment of need for AGPs Provision in Cherwell, Interim Report. (http://www.cherwell.gov.uk/media/pdf/i/h/Sport_England_AGPS_Final_Report_April_20141.pdf)

⁹⁵ Sport England (2014) Strategic Assessment of need for Pools Provision in Cherwell, Interim Report. (<http://www.cherwell.gov.uk/index.cfm?articleid=9641>)

⁹⁶ Cherwell District Council Open Space, Sport and Recreation, Assessment and Strategies, Nortoft Partnerships Ltd, 2017

walking and running routes and amenity green spaces. The consultation revealed that there is a strong desire for more natural green spaces, cycle routes, walking and running routes. The balance of opinion suggests that there is also need for more hard courts/multi use games areas, for synthetic/artificial grass pitches, athletics facilities, and indoor tennis.

Economy

- 3.89 The District's largest employment sectors are: distribution, manufacturing, office, retailing and other services, and public sector employment including in health, defence and education. The District has a clear social and economic relationship with Oxford and to a lesser extent with Northamptonshire.
- 3.90 Banbury is principally a manufacturing town and service centre while Bicester is a garrison town with a military logistics, storage and distribution and manufacturing base. Both towns are important economic locations for the District. Kidlington functions as a village service centre but has a larger, varied employment base benefiting from its proximity to Oxford, its location next to the strategic road network, and the location of Oxford London Airport immediately to the north. Bicester and Kidlington lie within Oxford's hinterland. Bicester now has significant employment sites identified in order to reduce out commuting of its increasing population. In rural areas, the function of villages as places to live and commute from has increased as the traditional rural economy has declined with only a few small places of employment in most areas. The number of people employed in agriculture fell by 18% between 1990 and 2000 and between 2007 and 2008 figures continued to show a decline.
- 3.91 Oxford's economy is the primary economy within Oxfordshire with over 4,600 businesses providing 114,000 jobs and seven million tourists who visit the city each year⁹⁷. Seven of the ten largest employers in Oxfordshire are based in Oxford. Almost 90% of employees work in services, including approximately a fifth in retail, hotel and catering. Oxford's economic profile is famous for academic (Oxford University and Oxford Brookes University), motor manufacturing and tourism sectors. Other key features of the local economy include the bioscience sector; IT, software and creative media businesses; and research and development businesses developed by Oxford's universities.
- 3.92 The M40 motorway passes through Cherwell close to Banbury and Bicester. There are direct rail links from Banbury and Bicester to London, Birmingham and Oxford. A new line was introduced to London Marylebone from Oxford Parkway Station in autumn 2015.

Employment and Economic Activity

- 3.93 Cherwell District's Annual Monitoring Report⁹⁸ reports a considerable gain in employment floor space in the District, with over 67,000sqm completed, with only 2.1 ha being lost to other non-employment uses. The most recent statistics show that between October 2015 to September 2016⁹⁹, 79.4% of Cherwell's residents aged 16-74 were economically active; this is above the national average of 77.8%. Of this 3.5% were unemployed which is below the national average of 4.9%. The three main employment sectors in Cherwell in the same period were professional occupations (20.8%), administrative and secretarial (13.7%) and associate professional & technical occupations (11.0%).
- 3.94 The number of people claiming Jobseeker's Allowance as a percentage of the working age resident population was 0.4% in Cherwell as of August 2016¹⁰⁰, which is lower than both the regional average (0.8%) and national average (1.2%).
- 3.95 Of the 6,415 enterprises within Cherwell in 2015¹⁰¹, 88.2% were considered as 'micro' size (0-9 employees), 9.6% were considered to be 'small' (10-49 employees), 1.8% were considered to be 'medium' (50-249 employees) and 0.3% were considered to be 'large' (250+ employees).

⁹⁷ Economic Profile of Oxford (2016). Oxford City Council.
(https://www.oxford.gov.uk/downloads/file/2343/oxford_profile_2016_key_facts)

⁹⁸ Cherwell Annual Monitoring Report (2016) Cherwell Local Development Framework

⁹⁹ Nomis 2016 Labour Market Profile – Cherwell.
(<https://www.nomisweb.co.uk/reports/lmp/la/1946157323/report.aspx?town=cherwell#>) Accessed 15th February 2017.

¹⁰⁰ Nomis 2016 Labour Market Profile – Cherwell.
(<https://www.nomisweb.co.uk/reports/lmp/la/1946157323/report.aspx?town=cherwell#>) Accessed 15th February 2017.

- 3.96 In 2016¹⁰², the average gross weekly pay for residents of ages 16 and above in full time work in Cherwell was £582.80. This figure is just above the regional average of £82.00 per week and higher than the national average of £541.00 per week.
- 3.97 In 2016, Cherwell District Council commissioned a Strategic Economic Growth Study that provides an overview of the current economic interdependencies between the south of Cherwell District and Oxford City and comments on growth trends, key sectors/clusters and key opportunities¹⁰³. The Study highlights that Cherwell benefits from high economic activity but that its ageing population and high economic activity creates challenges to developing the local economy. The Study highlights two distinct 'Travel to Work Areas' (TTWAs):
- North Cherwell (alongside parts of neighbouring authority areas including South Northamptonshire) is focused on servicing the employment cluster within Banbury.
 - South Cherwell falls into a larger TTWA that is focussed on Oxford, which extends further to include the wider districts that form part of the Oxfordshire Local Enterprise Partnership (OxLEP) area. Two of the District's main towns (Bicester and Kidlington), London Oxford Airport (LOA) and a number of rural settlements all provide a working population to Oxford.
- 3.98 The study highlights the importance of the corridor between Oxford and Milton Keynes as being a key economic growth area driven by the presence of key high value sectors that have settled in this area.
- 3.99 As part of the Oxford Northern Gateway, the area around Begbroke is recognised as one of the locations with the greatest potential to support the activity growing out of Oxford sustainably and improve connections north of Oxford to Bicester, strengthened by the close proximity of London Oxford Airport.

Tourism

- 3.100 The combination of historical towns and the District's rural setting are important factors for attracting visitors to Cherwell.
- 3.101 Banbury is an old market town with its origins dating back to the Saxon era and is host to many historical attractions such as Broughton Castle and Tooley's boatyard dating back over 200 years. The town is attractive with many independent shops, restaurants and cafes and a range of accommodation. The Oxford Canal passes through Banbury offering the opportunities for tourist trips on narrowboats or to walk along its tranquil towpaths.
- 3.102 Growing from a small agricultural market town, Bicester echoes its past by holding traditional weekly market-day, as well as a Farmers' Market once a month in the Market Square. The town also has many places of historic interest including a 17th century Dovecote, St. Edburg's Church built in 1104 and the Old Priory and the Old Vicarage built around 1500.
- 3.103 During 2014, there were 6.6 million day trips to Cherwell with an expenditure of £247 million with a significant proportion of day trips in Bicester Village retail outlet¹⁰⁴. There were 1.2 million night trips with an expenditure of £72.7 million in Cherwell for the same period. The total turnover related to all trip expenditure was £319.8 million and 4,652 FTE jobs were supported by tourism spending within the District in 2014¹⁰⁵. The most recent Tourism Development Study¹⁰⁶ shows that tourism within the District is short stay and the majority of visitors (90%) are domestic.

¹⁰¹ Nomis 2016 Labour Market Profile - Cherwell.
(<https://www.nomisweb.co.uk/reports/lmp/la/1946157323/report.aspx?town=cherwell#>) Accessed 15th February 2017.

¹⁰² Nomis 2016 Labour Market Profile - Cherwell.
(<https://www.nomisweb.co.uk/reports/lmp/la/1946157323/report.aspx?town=cherwell#>) Accessed 15th February 2017.

¹⁰³ Strategic Economic Growth Study, GVA, March 2017

¹⁰⁴ The Economic Impact of Tourism on Oxfordshire Estimates for 2014 County and District Results. August 2015.
(<http://mediafiles.thedms.co.uk/Publication/OS-OX/cms/pdf/Experience%20Oxfordshire%20The%20Economic%20Impact%20of%20Tourism%20on%20Oxfordshire%20in%202014.pdf>)

¹⁰⁵ The Economic Impact of Tourism on Oxfordshire Estimates for 2014 County and District Results. August 2015
(<http://mediafiles.thedms.co.uk/Publication/OS-OX/cms/pdf/Experience%20Oxfordshire%20The%20Economic%20Impact%20of%20Tourism%20on%20Oxfordshire%20in%202014.pdf>)

¹⁰⁶ Cherwell District Council (2008) Cherwell Tourism Development Study.
([http://www.cherwell.gov.uk/media/pdf/a/c/Cherwell_Tourism_Development_Study_\(August_2008\).Pdf](http://www.cherwell.gov.uk/media/pdf/a/c/Cherwell_Tourism_Development_Study_(August_2008).Pdf))

Transport

- 3.104 The M40 runs north-south through the District passing to the east of Banbury and to the west of Bicester providing good links to London and Birmingham. There are also number of A-roads within the District as shown in **Figure 3.11: Transport Links**.
- 3.105 Cherwell residents travel further to work than people in the rest of the south east and nationally. It is estimated that 23,629 people commute from Cherwell with the majority (7,543) commuting into Oxford¹⁰⁷. Evidence also suggests that 57,451 people commute into Oxford with significant flows deriving from the other Oxfordshire districts with the Vale of White Horse being the most prominent (16,563)¹⁰⁸.
- 3.106 The District has high levels of car ownership and residents living in rural areas in particular are highly dependent on cars resulting in a number of congestion hotspots in the District including in the centres of Banbury, Bicester and to some extent Kidlington¹⁰⁹. According to the 2011 census data¹¹⁰, 15.6% of residents in Cherwell had no cars or vans in household, which is significantly lower than the national average of 25.6%, 41.4% of Cherwell residents had one car or van in household which is similar to the national average of 42.2%, and 32.5% had two cars or vans in household which is significantly higher than the national average of 24.7%.
- 3.107 There has been a general decrease of road traffic casualties in Cherwell with nearly 900 in the year 2000 to almost 600 in the year 2015. During 2014 there were four fatal, 93 serious and 491 slight road traffic casualties¹¹¹.
- 3.108 There are five railway stations in Cherwell as illustrated in **Figure 3.11**. Banbury station is served by Chiltern Railways connecting Banbury with London Marylebone, Oxford and Birmingham, Cross Country linking the town with Manchester, Bournemouth, Newcastle and Reading. The station has four platforms and 795 car parking spaces.
- 3.109 Bicester has two train stations; Bicester North (the larger) and Bicester Village. Bicester North station is on the Chiltern Main Line running south to London Marylebone and north to Birmingham.
- 3.110 Oxford Parkway Station is also served by Chiltern Railways and is located between Kidlington and Oxford, near the A34. In October 2015, a new line was introduced to London Marylebone from this station and is now extended to Oxford which is anticipated to bring significant economic benefits to those living along the route¹¹². The proposed HS2 route passes through small sections of the District's eastern boundary. Cherwell District Council along with other councils in the South East and Midlands has opposed the Government's high-speed rail project¹¹³.
- 3.111 London Oxford Airport is situated north-west of Kidlington. The airport is home to the Oxford Aviation Academy training student commercial pilots. The airport is mainly used for private and recreational aviation activity as well as operating a small number of private and chartered flights. It is also one of Kidlington's main employment areas.
- 3.112 Oxfordshire County Council's A44/A4260 Corridor Study¹¹⁴ was published in 2017 in response to considerations brought forward through Cherwell District Council's Kidlington Framework Masterplan, specifically the need to enhance bus and cycle routes to and from Oxford and strengthen the ability of the existing highway network to more effectively accommodate high levels of traffic. The Study highlighted that the A44 has the greatest score for upgrading to accommodate greater numbers of vehicles but that the quitter A4260 would be more appropriate

¹⁰⁷ Commuting flows from the Annual Population Survey, Great Britain, 2011 (http://www.neighbourhood.statistics.gov.uk/HTMLDocs/Commute_APS_Map/Index.html) Accessed 15th February 2017.

¹⁰⁸ Commuting flows from the Annual Population Survey, Great Britain, 2011 (http://www.neighbourhood.statistics.gov.uk/HTMLDocs/Commute_APS_Map/Index.html) Accessed 15th February 2017.

¹⁰⁹ 2014 Air Quality Progress Report for Cherwell District Council. (2014) (<http://www.cherwell.gov.uk/index.cfm?articleID=4080>)

¹¹⁰ ONS (2011) Table KS404EW Car or Van availability, local authorities in England and Wales. (<https://www.ons.gov.uk/census/2011census/2011censusdata/2011censusdatacatalogue>)

¹¹¹ Oxfordshire County Council Road Traffic Accident Casualty Data Summary 2014 (<https://www.oxfordshire.gov.uk/cms/sites/default/files/folders/documents/roadsandtransport/safety/CasualtyReport2014.pdf>)

¹¹² October 2015 Timetable (<http://www.chilternrailways.co.uk/october-timetable>) Accessed 15th February 2017.

¹¹³ Cherwell District Council - High speed 2 rail link (<http://www.cherwell.gov.uk/index.cfm?articleid=8118>) Accessed 15th February 2017.

¹¹⁴ A44/A4260 Corridor Study, Oxfordshire county Council, 2017

for cycling investment. In addition, Cherwell District Council's Local Plan Part 1 Review Transport Assessment¹¹⁵ acknowledges the necessity for the development of 4,400 homes in close proximity to Oxford to contribute to such transport improvements, particularly in light of the fragility of the existing highway network which are already susceptible to high levels of traffic congestion and delay. The Study concludes that the closer the additional 4,400 homes are located to Oxford the better, so as to minimise the impact of vehicle trips on the already congested highway network and increase the effectiveness of non-motorised (walk/cycle) and public transport travel options, safety measures, air quality measures and journey time reductions, particularly around the A34/A40/A44/A4260 interchanges. The Study raises the importance of effectively:

- Improving sustainable transport (walk, cycle, public transport) connectivity between Kidlington/Yarnton/Begbroke and employment sites north of Oxford (notably Langford Lane and the proposed Northern Gateway site), Oxford City centre jobs/retail/cultural facilities, and local shops and community facilities.
- Managing increases in commuter trips on the A44/A4144 and A4026 /Oxford Rd corridors – particularly where they cross the A34 and A44 – which will impact on existing trip demands along these corridors.
- Managing the increases in traffic along the A44 and A4026 as a result of development along the corridor west of Kidlington.




Oxford City spatial portrait

- 3.113 As described above, Oxford has an acute housing shortage, particularly affordable housing and student accommodation. The Oxford Green Belt, formerly designated in 1975, with a tight inner boundary around the built-up area of the city, and extending outwards for around five to six miles in every direction and into each of Oxford's neighbouring districts, has for almost 40 years provided an open, landscape backdrop to the urban area of Oxford and prevented coalescence with neighbouring towns and villages. However, it has also presented a major constraint on the City's growth and development, alongside the constraints of the floodplain and sensitive ecological and historical areas.
- 3.114 Oxford is a world-renowned tourist destination and historic city, with over 1,500 listed buildings and 16 conservation areas, which cover 17.3% of the total area of the city. The built-up area extends to the administrative boundary around much of the eastern side of the city, and the river corridors of the Thames to the west and Cherwell to the east have created extensive green wedges running north-south through the city. This gives Oxford a distinctive physical form, with much of the residential population concentrated to the east of the city centre. Around 27% of Oxford is in the Green Belt, with much of this land being flood plain associated with the two river corridors, and therefore presenting areas of high flood risk. The historic city parks and nature conservation areas (including a Special Area of Conservation (SAC) and several Sites of Special Scientific Interest (SSSIs)) create pockets and corridors of green space within the city boundary.
- 3.115 Oxford is also an important retail centre with a successful economy based on higher education, health services, car manufacturing, high-tech and medical scientific research. The potential of Oxford and its sub-region to act as a catalyst for growth and investment has been recognised in past and present regional and local planning policy.
- 3.116 Providing sufficient homes to meet Oxford's needs, and the constraints to development presented by natural and historic assets as well as the Green Belt, is a significant challenge for the five local planning authorities in Oxfordshire; one which is being addressed through the countywide joint work discussed in **Chapter 2**.




















¹¹⁵ Local Plan Part 1 Review Transport Assessment, ITP, 2017

Figure 3.1

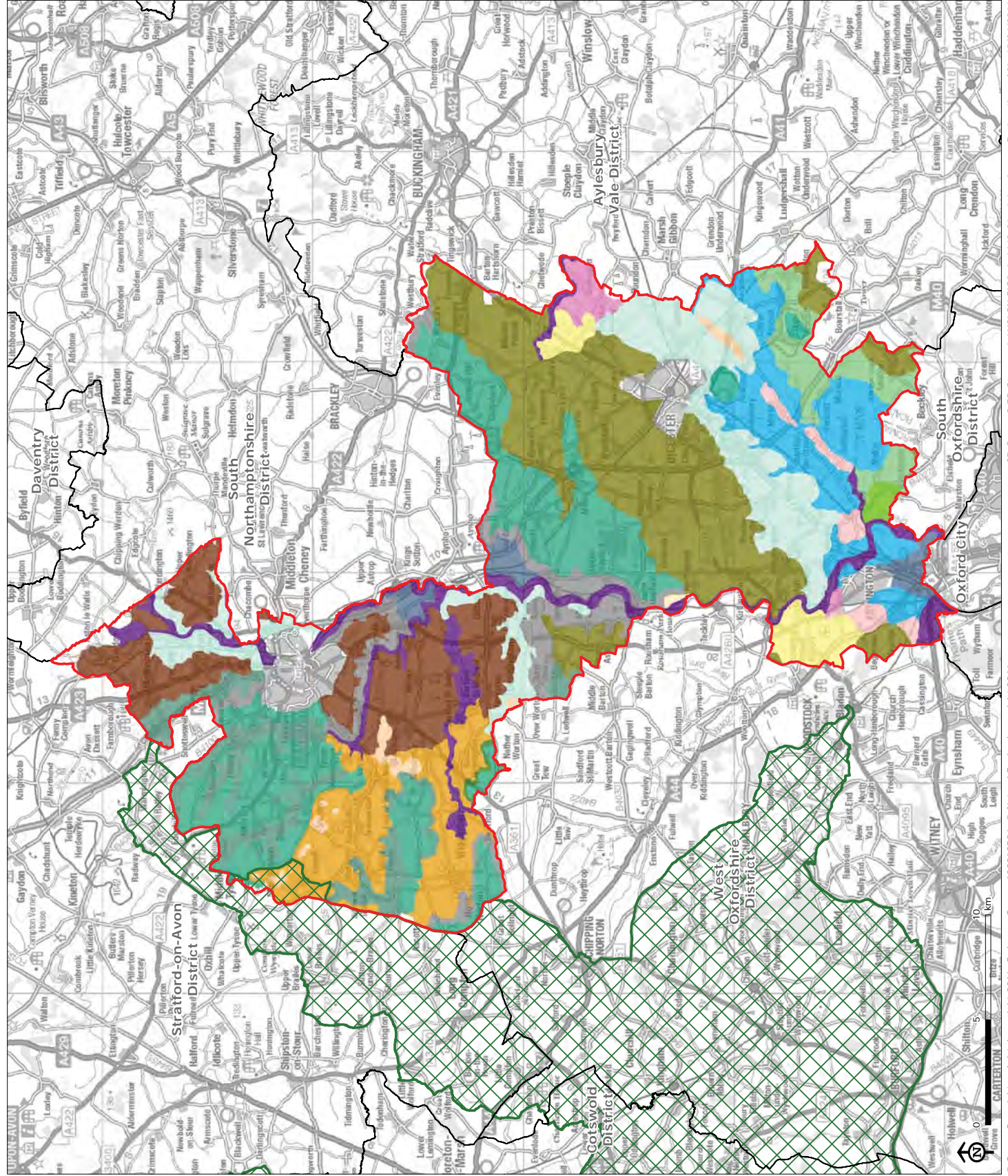
Landscape Designations

-  Cherwell District boundary
-  Other district boundaries
-  Area of Outstanding Natural Beauty (AONB)

Oxfordshire Wildlife & Landscape Study

-  Alluvial Lowlands
-  Clay Vale
-  Estate Farmlands
-  Farmland Hills
-  Farmland Plateau
-  Farmland Slopes and Valley Sides
-  Lowland Village Farmlands
-  Pasture Hills
-  Rive Meadowlands
-  Rolling Clayland
-  Rolling Farmland
-  Rolling Village Pastures
-  Upstanding Village Farmlands
-  Vale Farmland
-  Wooded Estate Slopes and Valley Sides
-  Wooded Estatelands
-  Wooded Farmland
-  Wooded Hills
-  Wooded Pasture Valleys and Slopes

Map Scale @ A3: 1:175,000



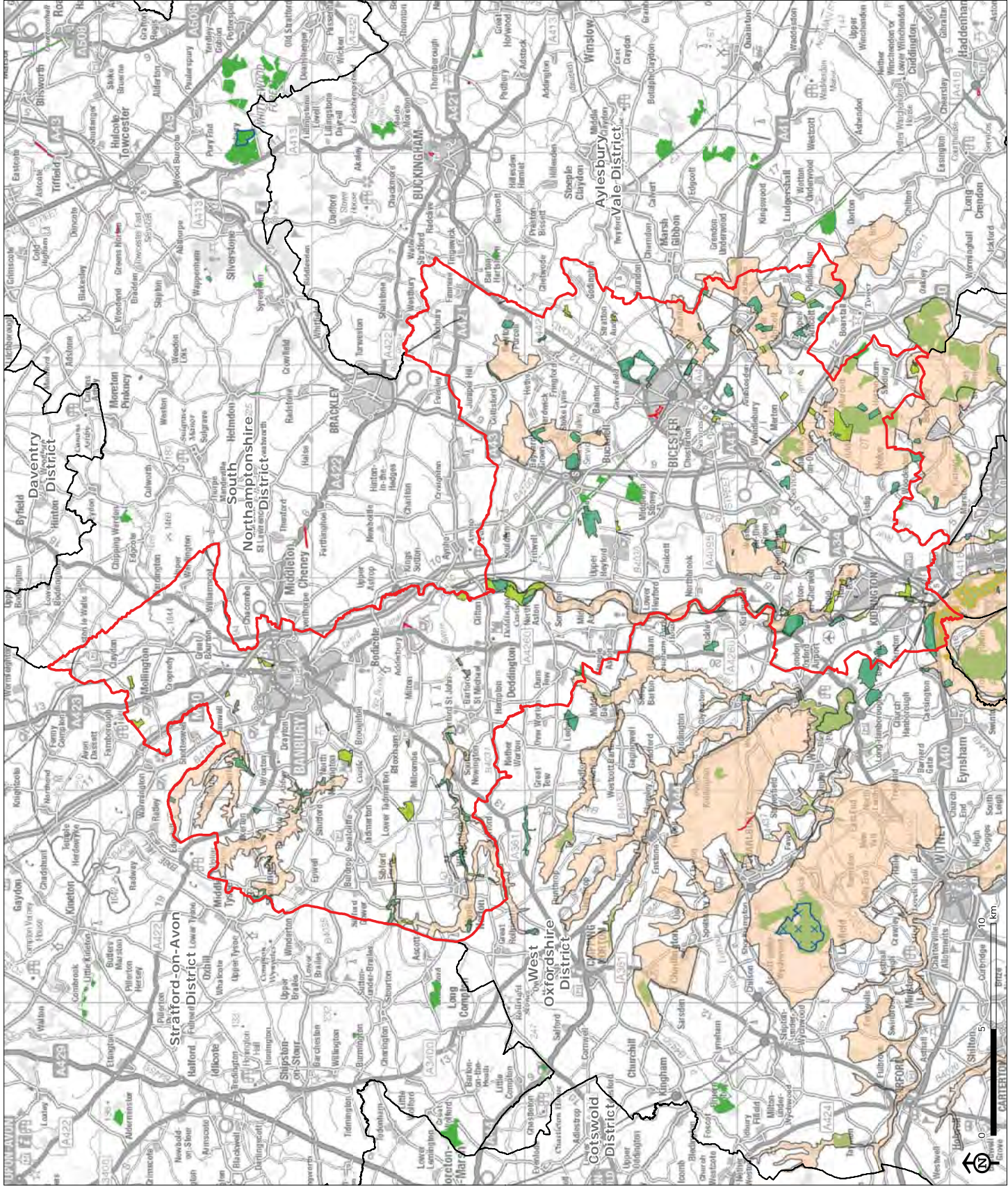
Cherwell Local Plan

Figure 3.2

Biodiversity Designations

- Cherwell District boundary
 - Other district boundaries
 - Special Area of Conservation (SAC)
 - Site of Special Scientific Interest (SSSI)
 - National Nature Reserve (NNR)
 - Local Nature Reserve (LNR)
- ## Local Designations
- Local Wildlife Site (LWS)
 - District Wildlife Site (DWS)
 - Conservation target areas

Map Scale @ A3: 1:175,000



Cherwell Local Plan

Figure 3.3

Geological Designations

- Cherwell District boundary
- Other district boundaries
- Local geological site

Map Scale @ A3: 1:175,000

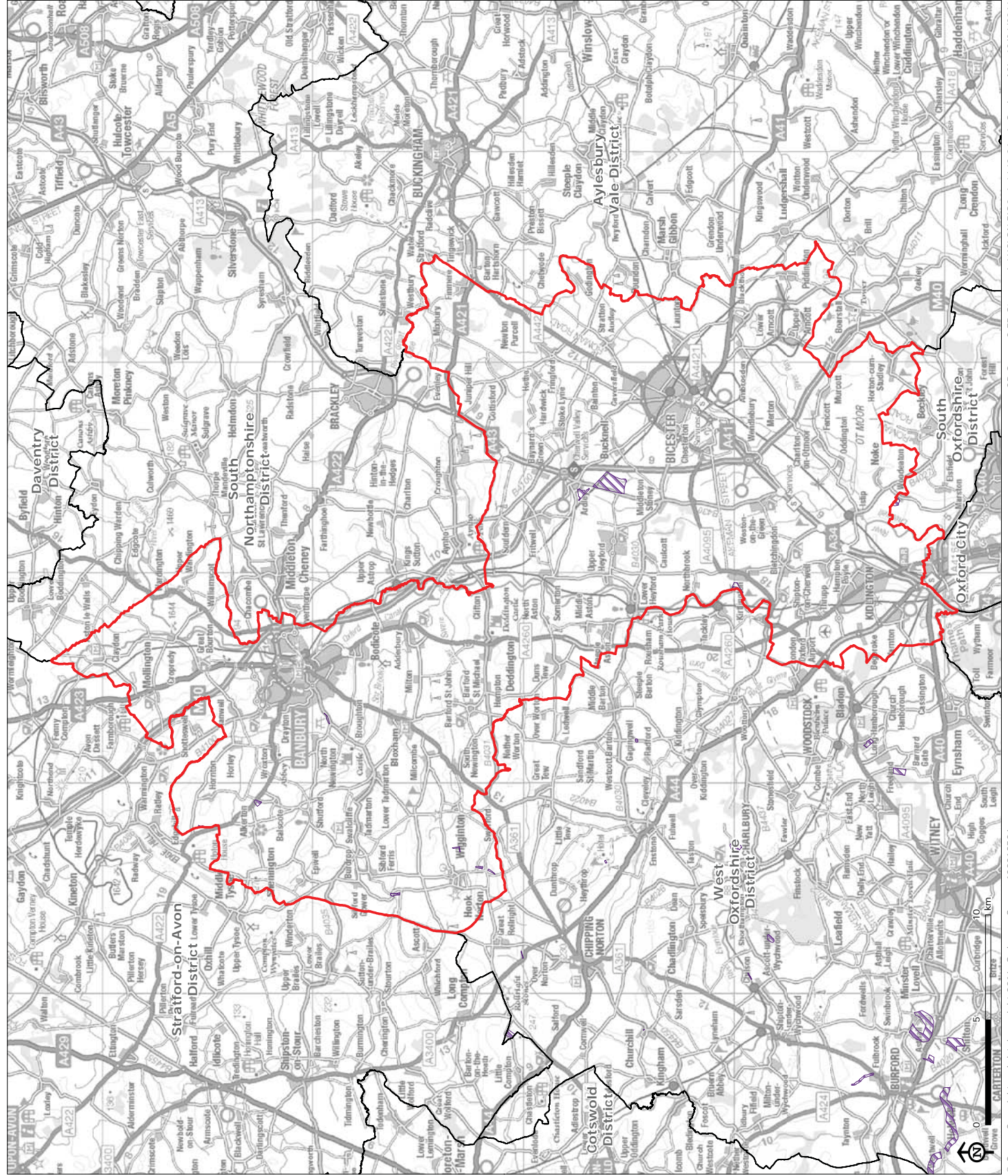








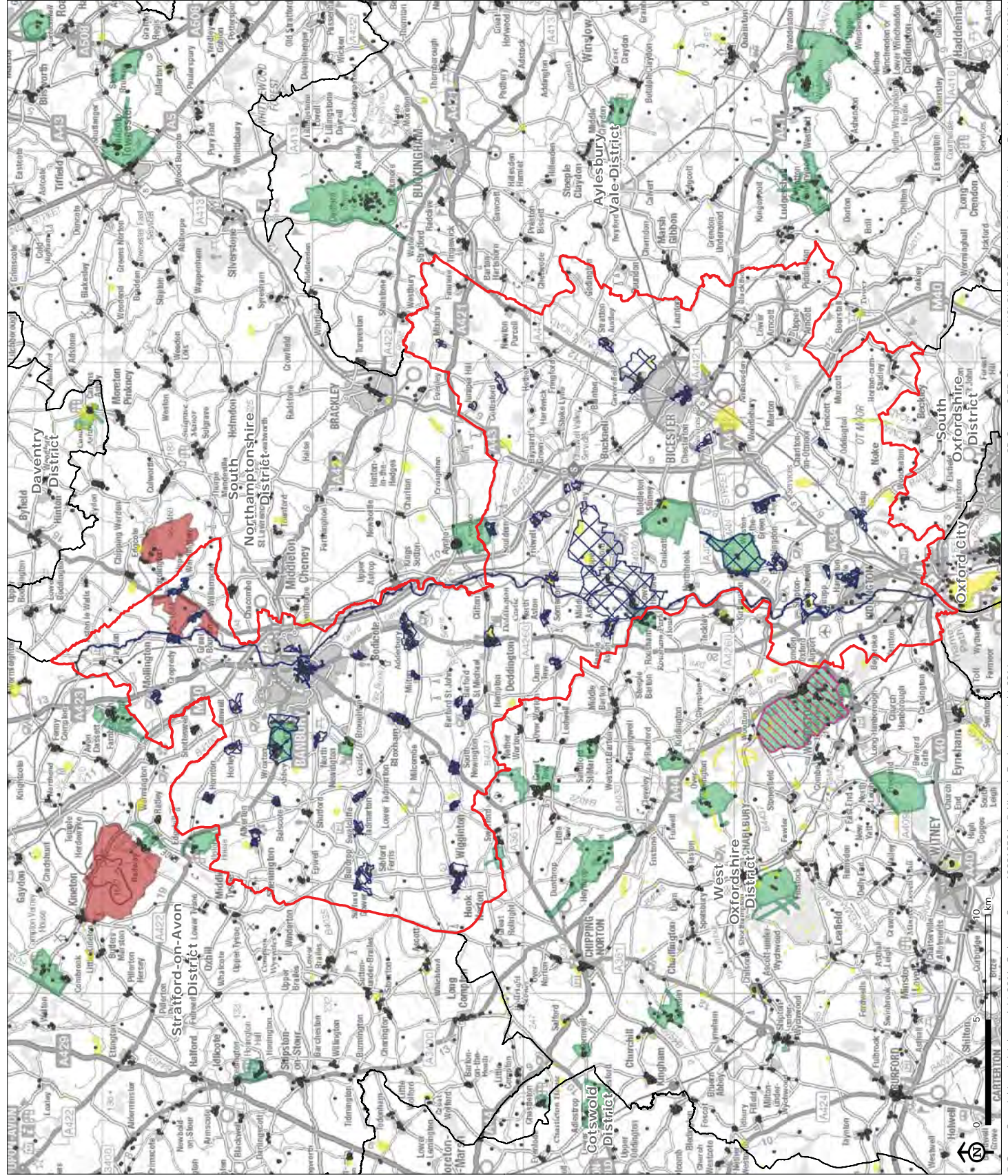


Figure 3.4

Heritage Designations

-  Cherwell District boundary
-  Other district boundaries
-  Listed buildings
-  World Heritage Site (WHS)
-  Scheduled monument
-  Registered park and garden
-  Registered battlefield
-  Conservation areas

Map Scale @ A3: 1:175,000



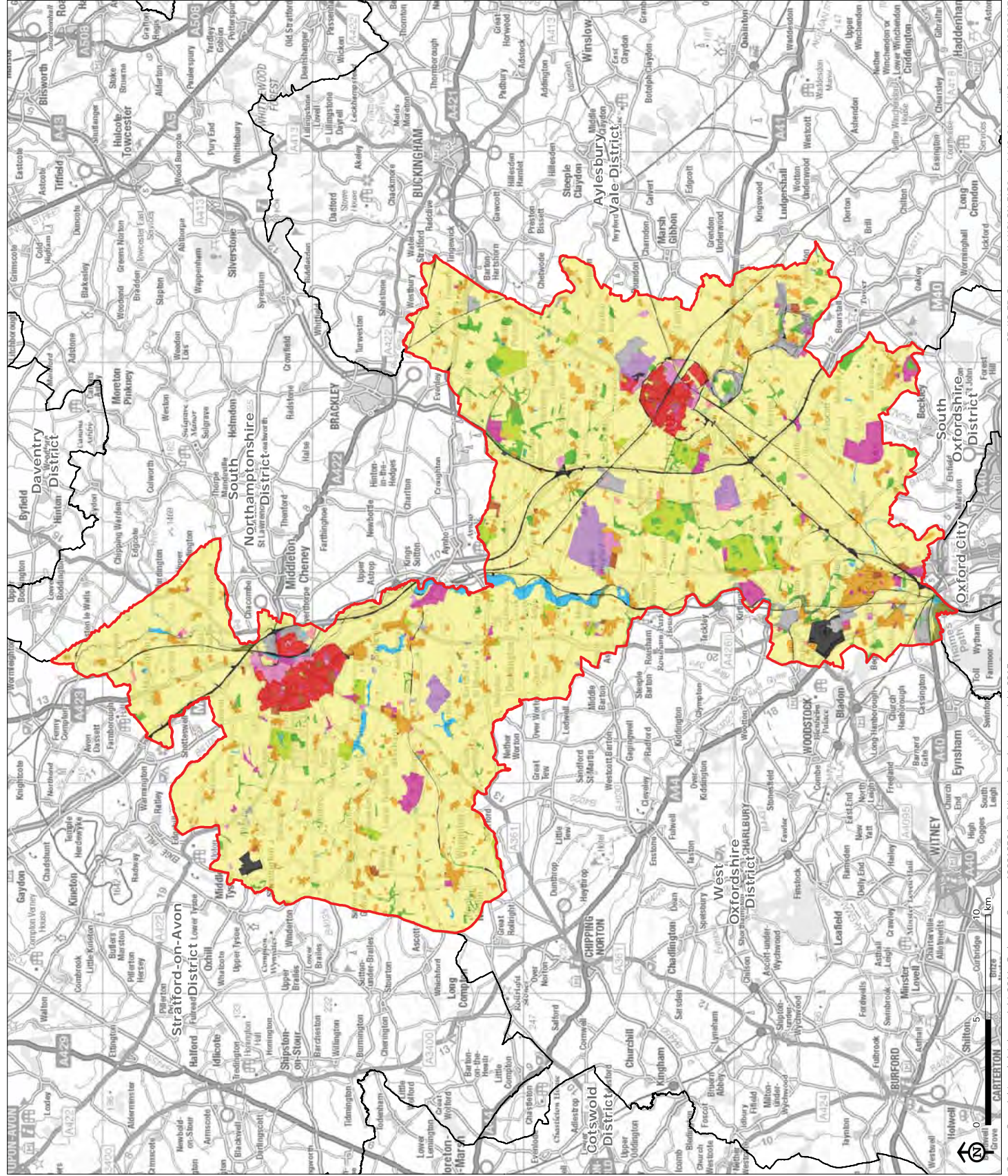
Cherwell Local Plan

Figure 3.5

Historic Landscape Classification (HLC)

- Cherwell District boundary
 - Other district boundaries
- HLC broad type**
- Civic Amenities
 - Civil Provision
 - Commercial
 - Communication
 - Enclosure
 - Industry
 - Military
 - Orchards and Horticulture
 - Ornamental
 - Recreation
 - Rural Settlement
 - Unclassified Land
 - Urban Settlement
 - Water and Valley Floor
 - Woodland

Map Scale @ A3: 1:175,000



Cherwell Local Plan

Figure 3.6

Hydrology

- Cherwell District boundary
- Other district boundaries
- River
- Flood zone 2
- Flood zone 3

Ground Water Source Protection Zone (GWSPPZ)

- 1
- 1c
- 2c
- 3

Map Scale @ A3: 1:175,000

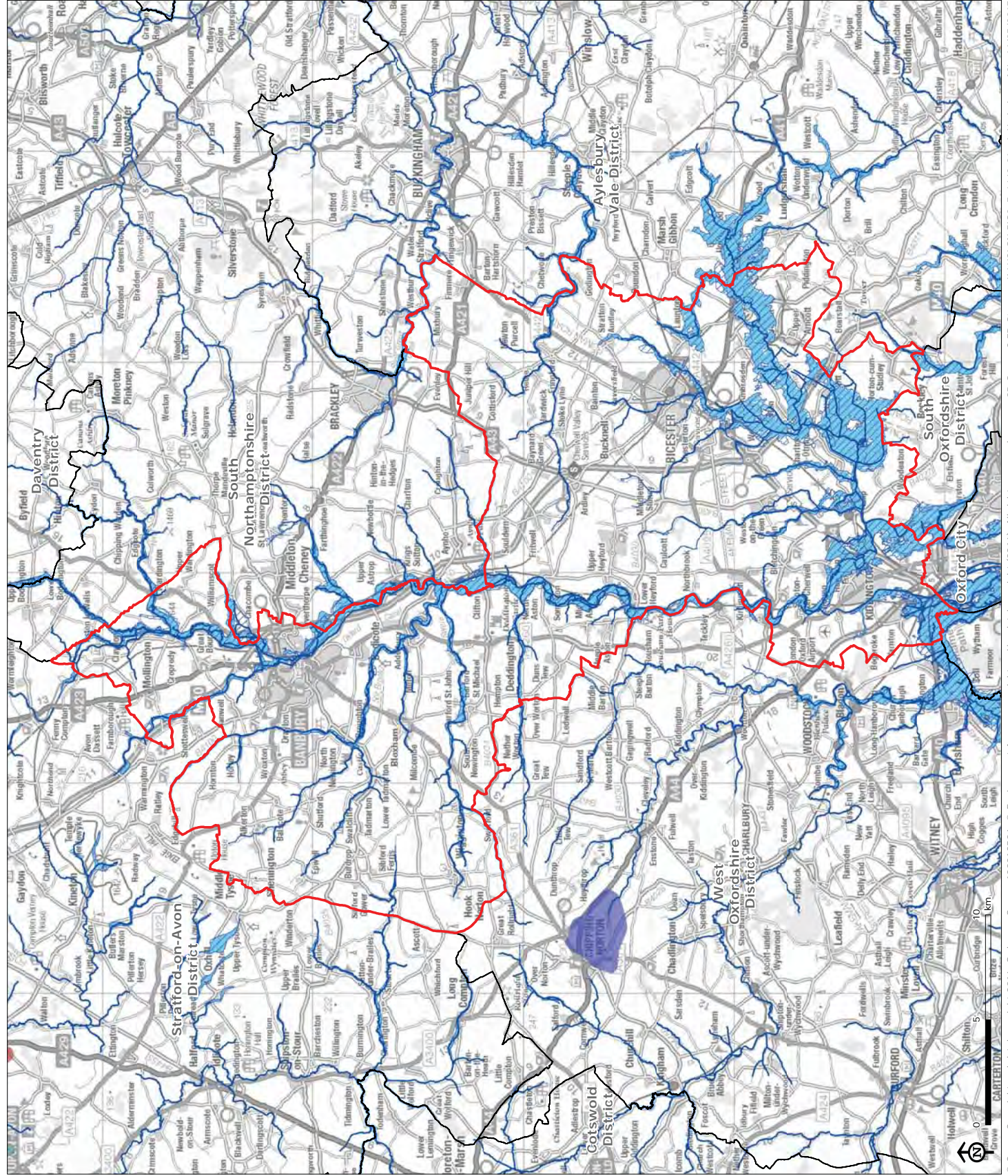


Figure 3.7

Agricultural Land Classification

- Cherwell District boundary
- Other district boundaries
- National Agricultural Land Classification (ALC)**
- Grade 1
- Grade 2
- Grade 3
- Grade 4
- Grade 5
- Non Agricultural
- Urban (Indicative)

Map Scale @ A3: 1:175,000

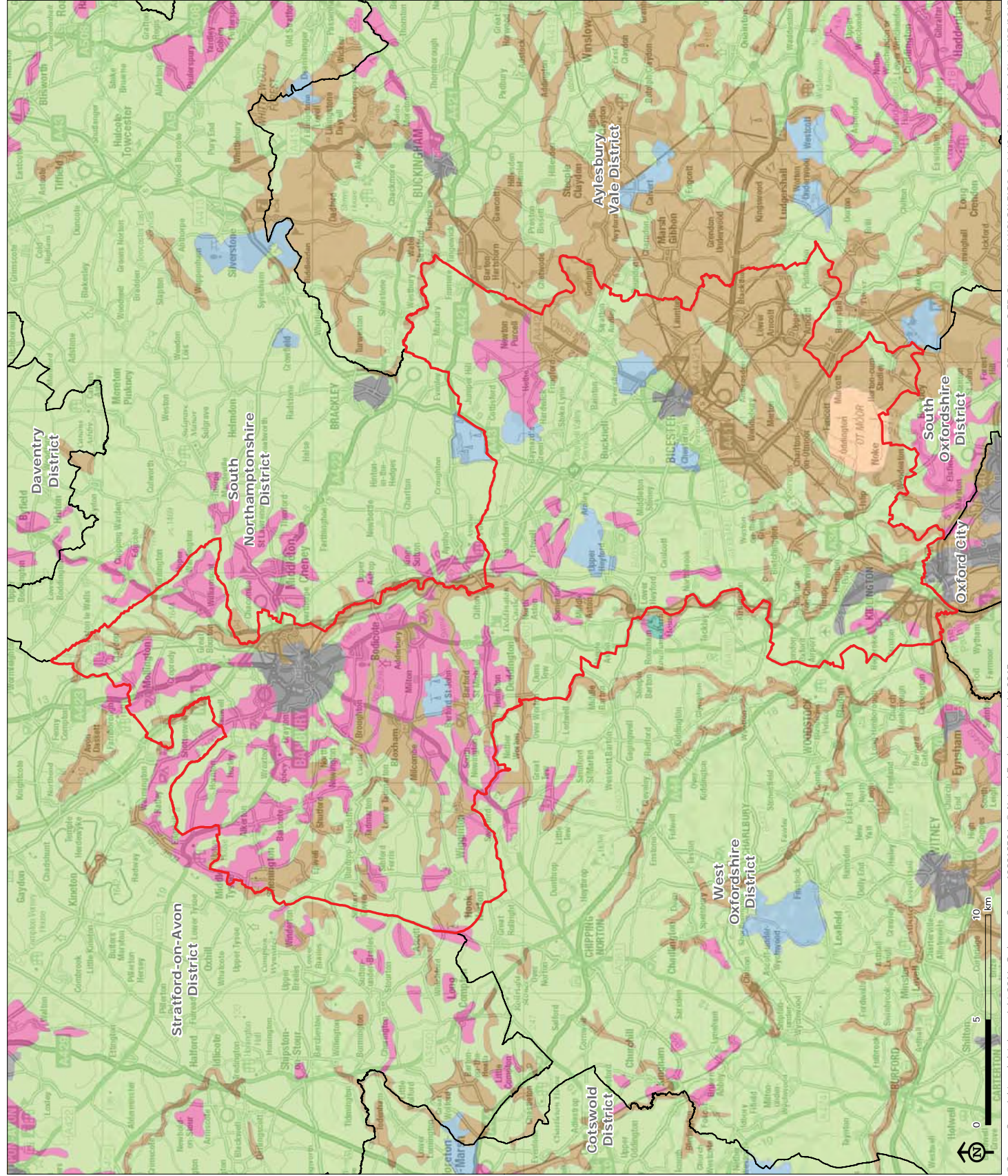


Figure 3.8

Local Agricultural Land Classification

- Cherwell District boundary
 - Other district boundaries
- Local Agricultural Land Classification (ALC)
- Grade 1
 - Grade 2
 - Grade 3a
 - Grade 3b
 - Grade 4
 - Grade 5
 - Other
 - Not Surveyed

Map Scale @ A3: 1:175,000

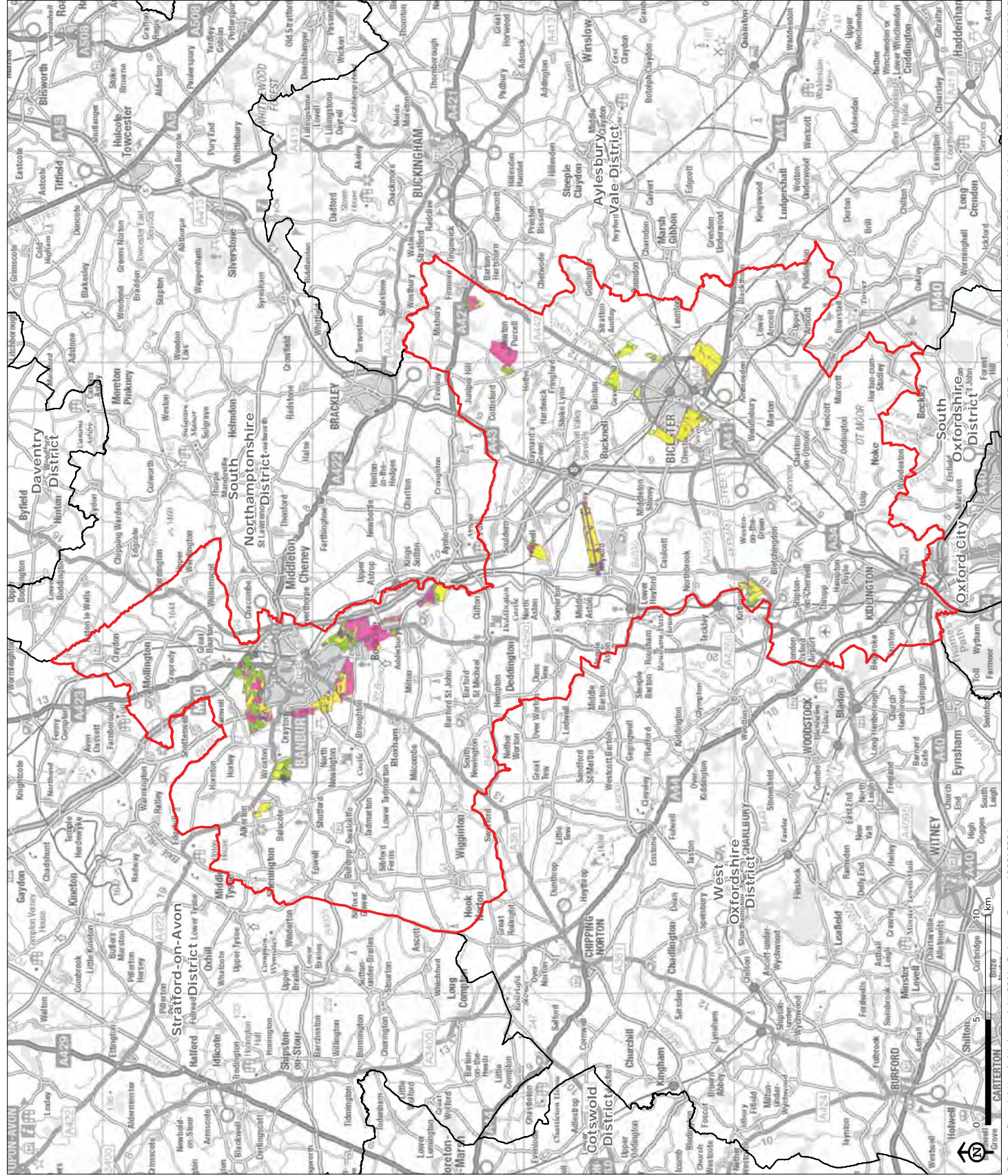


Figure 3.9

Recreation - Green and Open Space

- Cherwell District boundary
- Other district boundaries
- Country park
- Existing green space

Map Scale @ A3: 1:175,000

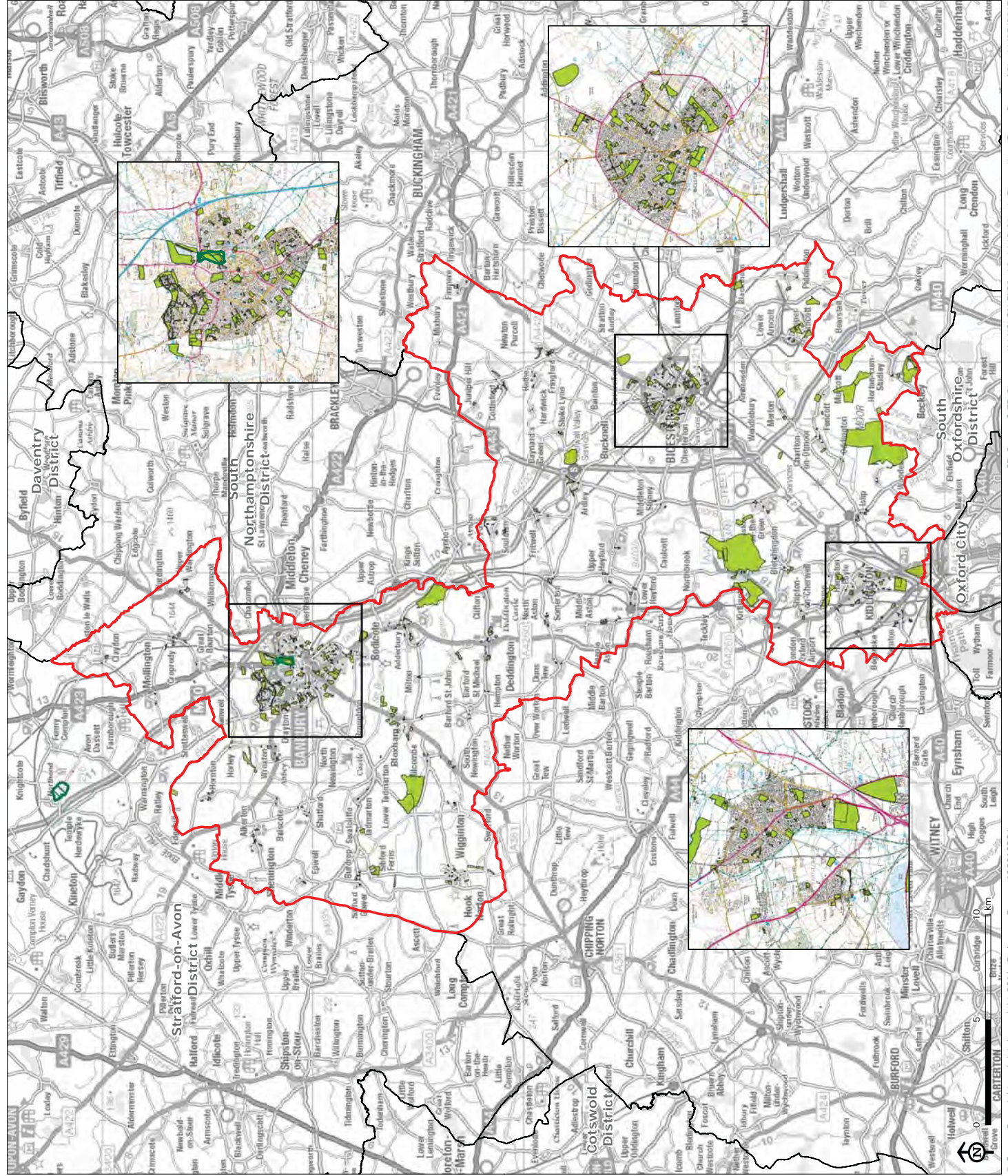


Figure 3.10

Recreation - PROW and Cycle Routes

- Cherwell District boundary
- Other district boundaries
- National trail
- Public Rights of Way (PROW)**
 - Public footpath
 - Public bridleway
 - Restricted byways
 - Byway Open to All Traffic (BOAT)
- National and regional cycle routes**
 - Traffic Free
 - On Road
 - National Cycle Network link

Map Scale @ A3: 1:175,000

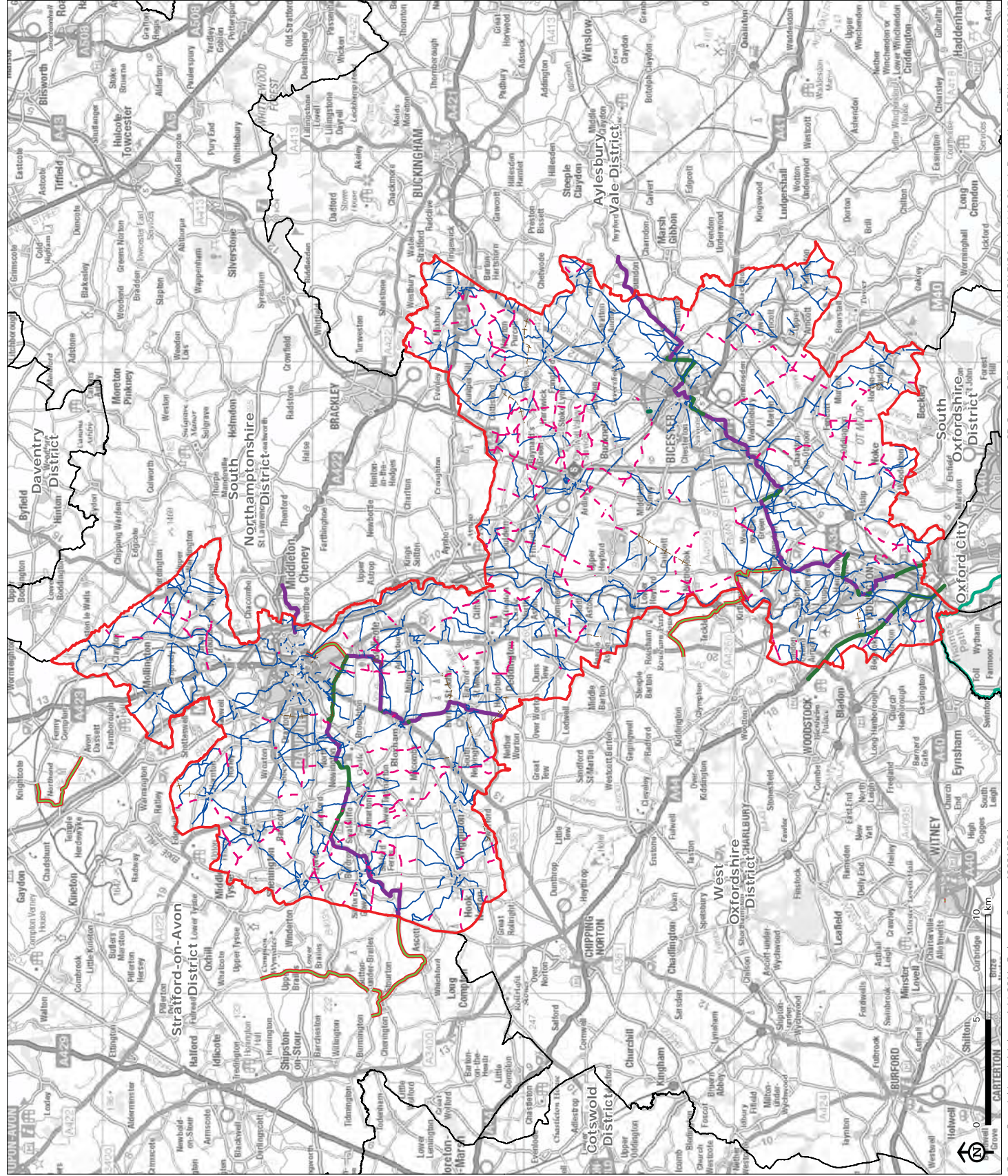


Figure 3.11

Transport Links

- Cherwell District boundary
- Other district boundaries
- Motorway
- A Road
- Railway track
- Railway station
- London Oxford Airport
- Air Quality Management Area (AQMA)
- Proposed HS2 route and safeguarding zones

Map Scale @ A3: 1:175,000

