Oxfordshire Conservation Target Areas Mapping Project Report

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Oxfordshire Conservation Target Areas Report

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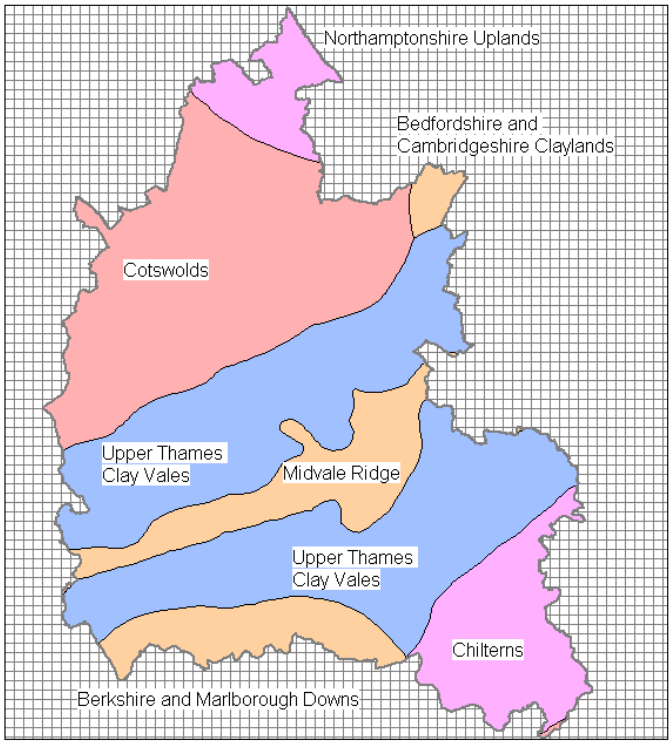
1.0 Introduction

Thames Valley Environmental Records Centre (TVERC) was commissioned in 2005-2006 by Oxfordshire County Council County Ecologist Craig Blackwell, to define and map key target areas for nature conservation action within Oxfordshire.

1.1 Aim of Conservation Target Areas Mapping Project

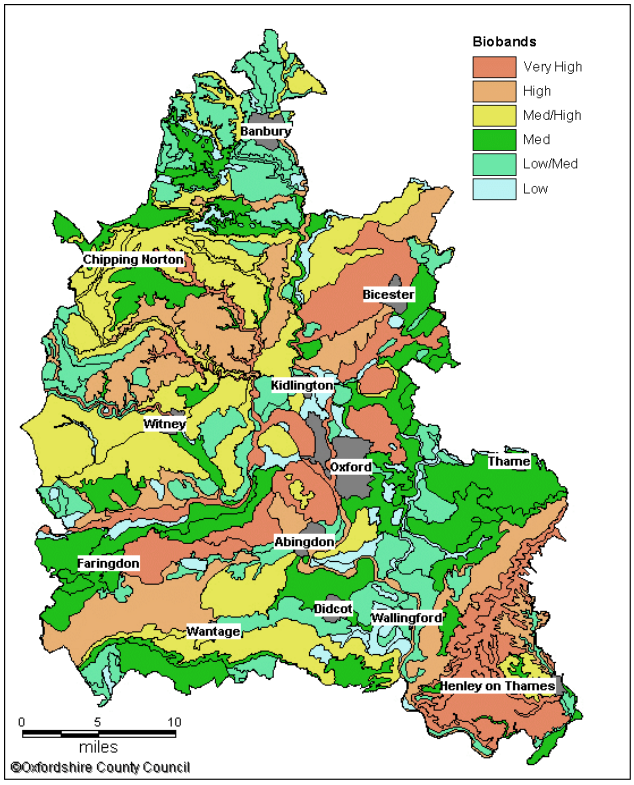
In the mid 1990s the map of England was subdivided into 159 different Joint Character Areas by the countryside agencies (see map to right). These Joint Character Areas are broad swathes of countryside, such as the Cotswolds and Chilterns, with similar geology, topography and patterns of land use. Sections of nine of these areas are found in Oxfordshire.

Oxfordshire Joint Character Areas



In 2005 the Oxfordshire Wildlife and Landscape Study (Oxfordshire County Council, English Nature, the Countryside Agency and the Northmoor Trust) completed a three year landscape and biodiversity appraisal of Oxfordshire. This study mapped the biodiversity and landscape within the Joint Character Areas in Oxfordshire in a series of 240 smaller units - Landscape Description Units (see map to left). The study went on to identify the landscape units of most importance for wildlife conservation, based on the extent and diversity of habitats. These are shown on the Biomap (see map to left). See www.owls.oxfordshire.gov.uk for more details.

Oxfordshire Biomap with Landscape Description Units boundaries



The identification and mapping of Conservation Target Areas (described in this report) is done as a follow up to the Oxfordshire Wildlife and Landscape Study; using a wider range of information to further refine and describe in detail the priority areas for nature conservation in the county.

The aim of the Conservation Target Areas Mapping Project was to identify and map the most important areas for wildlife conservation, within recognised Landscape Description Units, where targeted conservation action will have the greatest benefit.

The main aim of subsequent targeted conservation work within the Conservation Target Areas will be to restore biodiversity and landscape through the restoration and management of habitats. This reflects the aims of the new Higher Level Environment Stewardship agri-environment scheme (HLS).

2.0 Methods

2.1 Approach to Mapping

Initially TVERC explored the possibly of using a detailed scoring system to decide which areas should be included in the target area mapping. This was not feasible in the limited time available. TVERC also looked at using GIS cluster analysis tools to identify areas of high biodiversity. The GIS cluster analysis was deemed too simplistic and an approach that considered multiple variables simultaneously was sought.

The approach that was eventually taken is similar to that of The North Wessex Downs AONB Chalk Grassland Strategy (Wiltshire and Swindon Biological Records Centre May 2005). This Strategy:

- Defined key areas within the AONB using a scoring system.
- Defined core areas within those key areas based on the concentration of chalk grassland habitat, areas with greatest potential for chalk grassland restoration, archaeological sites and public access.

Although a scoring system was not used in the Oxfordshire mapping project, the OWLS project had scored landscape units and this analysis was used as a reference point. Though the OWLS scoring system acted as a starting point for this project, it was thought important not to consider just the high scoring landscape units from the OWLS analysis. This is because:

- The scoring system used by OWLS meant that large landscape units scored more highly than small units.
- Areas with a range of small remnant habitats score more highly in OWLS than areas with extensive areas of one or two habitats.
- The OWLS scoring was done rapidly without access to the more detailed information now available.

2.2 Key factors / information used

The key factors / information taken into account during the mapping process were:

- Concentrations of UKBAP habitat.
- Important areas for UKBAP and rare species. These largely coincide with areas with concentrations of habitat. This is less true with farmland birds and arable wildflowers. One target area was specifically included for these species and other target areas include land that is important for these species.
- Areas with concentrations of archaeological features. The County Archaeology Team were unable to assist with the project and therefore archaeological features could, in the main, only be considered from sites that are shown on Ordnance Survey maps.
- Areas with public access. Sites with open and controlled access and the presence of access routes such as national and local trails
- Potential for habitat restoration. Land with good potential to restore the main target habitats especially where this links existing habitat.
- Existing habitat restoration schemes such as those resulting from agri-enviroment schemes.

- Geology.
- Topography. The potential for habitat restoration is also dependant on topography. Most chalk and limestone grasslands, for instance, occur on steep slopes where the soils are thinner and thus steeper sloping land has greater potential.
- Hydrology and floodplains.

The source datasets used in this project are listed in detail in Appendix 1.

2.3 Additional supporting information

UKBAP habitat on County Wildlife Sites and SSSIs was mapped by TVERC during 2004 and 2005 and this was a key dataset used to identify the target areas. Additional mapping of land with extensive areas or remnants of UKBAP habitat, outside County Wildlife Sites and SSSIs, was carried out to further inform the process.

Areas of importance, but without defined boundaries, were mapped as Information Zones. These included parkland areas where the exact extent of parkland habitat is not known, areas that are important for arable wildflowers, areas with species rich hedgerows, ridge and furrow, areas with a specific restoration potential or which are may have some biodiversity interest and some areas within Countryside Stewardship.

2.4 Conservation Target Areas and Landscapes

The 240 Landscape Description Units were used as a starting point for mapping conservation target area boundaries (as with the North Wessex Downs AONB chalk grassland strategy). The conservation target area mapping was not constrained by landscape unit boundaries and land within adjacent landscape units with similar habitats was included (Conservation Target Area boundaries occasionally cut across Landscape Description Unit boundaries). The Conservation Target Areas do largely follow the national landscape description units but do include parts of units.

To form a logical and cohesive unit, some target areas are a combination of landscape types. A good example is the Swere Valley. The upper and lower sections of valley have different characteristics though the habitats are not dissimilar. The upper valley is quite narrow with steeper banks and more limestone grassland while the lower valley is more open with wider areas of flat riverside land and marshes. A tributary near Hook Norton extends into a different landscape unit and this is justified when you look at the landscape units at a more detailed scale - this 'cross-boundary' area is a valley that is very similar to that of the rest of the upper Swere Valley.

In some cases, in order to avoid overcomplicating the mapped areas, somewhat different landscapes (e.g. valleys and 'hill' plateaus) were mapped together. Examples are:

- The Chilterns Dipslope Valleys and Plateau, where a number of discreet plateau areas were mapped with the valleys
- Wychwood and Lower Evenlode where the valleys and the southern Evenlode Valley side were mapped with the plateau areas.
- Northern Evenlode Valleys where a significant area of plateau land was mapped with the valleys.

In all cases, although there are differences in habitats, there are also some ecological and physiographic (topography, geology, soils, hydrology) similarities that tie the areas together.

2.5 Consultation

Once draft target areas had been produced two all day events were held to consult with:

- local naturalists and conservation groups
- land management advisors
- land managers
- local authority ecologists, planners and landscape officers
- Defra (RDS)
- English Nature
- Wildlife Trust officers
- Ponds Conservation Trust
- Farming and Wildlife Advisory Group
- grant giving bodies
- RSPB
- Environment Agency
- AONB officers
- Landscape project officers

Maps of target areas and target area statements were sent to those who could not attend the consultation meetings or who wanted to study the areas in more detail outside of the consultation events. Statistical analysis of the extent to which the target areas 'captured' UKBAP priority habitats and species was carried out to inform the consultations (see Appendix 4). Comments made through this consultation were used to edit the boundaries of the target areas.

3.0 Results

36 target areas were identified and are listed in the table overleaf (page 6) and shown in the map on page 7 of this report. A summary of the thought process involved in deciding the boundaries and main changes resulting from consultation are given in Appendix 2.

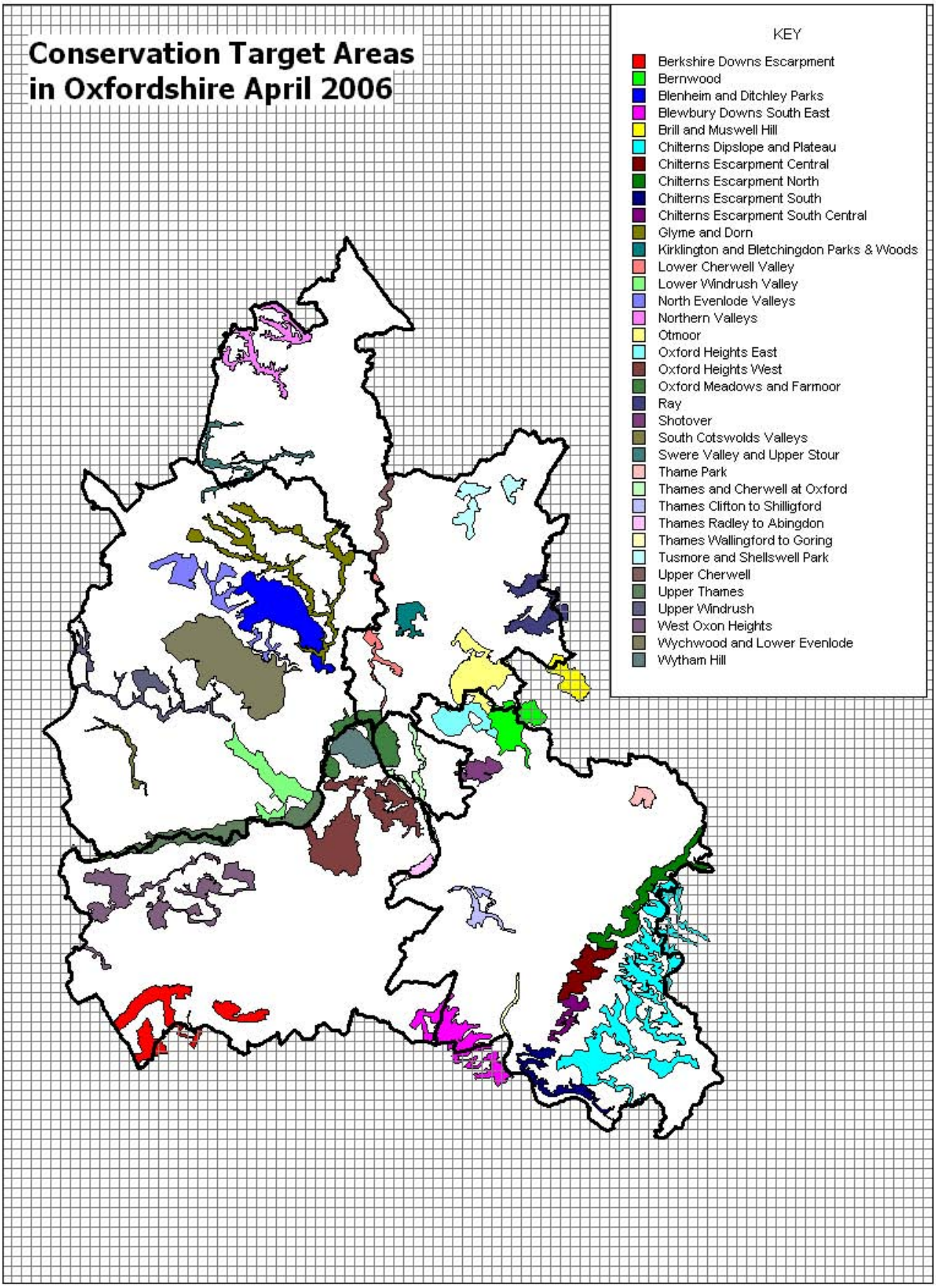
3.1 Outputs

The outputs of this project were:

- A GIS layer (computer map) of Conservation Target Areas (and hard copy maps – see Appendix 3).
- A GIS Layer of Key Link Zones. Two areas were identified as being important target areas to link target areas. These were between the Otmoor and Ray target areas and the two areas on the western Berkshire Downs escarpment. Although these lack the key habitats for the area they have good potential for restoring those habitats and thus linking target areas.
- A GIS Layer of other sites and habitats to as supporting information for the target areas.
- A GIS layer of information zones as supporting information for the target areas.
- Target Area Descriptions. A description for each target area was produced. These provide information on location, geology, topography, biodiversity, archaeology, access and list the key conservation targets. (See Appendix 3).
- An analysis of the extent to which the target areas included species and habitats of importance (See Appendix 4)

List of Conservation Target Areas and Local Authority Districts

Conservation Target Area Name	**Primary Local Authority District**	**Secondary Local Authority Districts**
Brill and Muswell Hill	Cherwell	Buckinghamshire
Kirklington and Bletchingdon Parks and Woods	Cherwell	
Lower Cherwell Valley	Cherwell	
Northern Valleys	Cherwell	
Otmoor	Cherwell	
Ray	Cherwell	Buckinghamshire
Swere Valley and Upper Stour	Cherwell	West Oxfordshire
Tusmore and Shellswell Park	Cherwell	
Upper Cherwell	Cherwell	
Bernwood	South Oxfordshire	Buckinghamshire
Blewbury Downs South East	South Oxfordshire	Vale of White Horse, West Berkshire
Chilterns Dipslope and Plateau	South Oxfordshire	Buckinghamshire
Chilterns Escarpment Central	South Oxfordshire	
Chilterns Escarpment North	South Oxfordshire	
Chilterns Escarpment South	South Oxfordshire	
Chilterns Escarpment South Central	South Oxfordshire	
Oxford Heights East	South Oxfordshire	
Shotover	South Oxfordshire	Oxford City
Thame Park	South Oxfordshire	
Thames Clifton to Shilligford	South Oxfordshire	
Thames Wallingford to Goring	South Oxfordshire	
Berkshire Downs Escarpment Core East	Vale of White Horse	
Berkshire Downs Escarpment Core West	Vale of White Horse	West Berkshire
Oxford Heights West	Vale of White Horse	
Thames and Cherwell at Oxford	Vale of White Horse	Oxford City
Thames Radley to Abingdon	Vale of White Horse	South Oxfordshire
Upper Thames	Vale of White Horse	West Oxfordshire
West Oxon Heights Streams, Hills, Woods and P	Vale of White Horse	
Wytham Hill	Vale of White Horse	
Oxford Meadows and Farmoor	Vale of White Horse, Oxford City	Cherwell
Blenheim and Ditchley Parks	West Oxfordshire	
Glyme	West Oxfordshire	
Lower Windrush Valley	West Oxfordshire	
North Evenlode Valleys	West Oxfordshire	
South Cotswolds Valleys	West Oxfordshire	
Upper Windrush	West Oxfordshire	
Wychwood and Lower Evenlode	West Oxfordshire	


Conservation Target Areas
in Oxfordshire April 2006
KEY
Berkshire Downs Escarpment
Bernwood
Blenheim and Ditchley Parks
Blewbury Downs South East
Brill and Muswell Hill
Chilterns Dipslope and Plateau
Chilterns Escarpment Central
Chilterns Escarpment North
Chilterns Escarpment South
Chilterns Escarpment South Central
Glyme and Dorn
Kirklington and Bletchingdon Parks & Woods
Lower Cherwell Valley
Lower Windrush Valley
North Evenlode Valleys
Northern Valleys
Otmoor
Oxford Heights East
Oxford Heights West
Oxford Meadows and Farmoor
Ray
Shotover
South Cotswolds Valleys
Swere Valley and Upper Stour
Thame Park
Thames and Cherwell at Oxford
Thames Clifton to Shilligford
Thames Radley to Abingdon
Thames Wallingford to Goring
Tusmore and Shellswell Park
Upper Cherwell
Upper Thames
Upper Windrush
West Oxon Heights
Wychwood and Lower Evenlode
Wytham Hill

Detailed maps of each Conservation Target Area are provided in Appendix 3 along with the target area descriptions. The maps show the extent of the target area along with designated sites, ancient woodland and other mapped sites. These include the areas mapped as other sites and habitats, information zones, proposed county wildlife sites and BBOWT reserves that are not Sites of Special Scientific Interest or County Wildlife Site.

4.0 Discussion

4.1 Did we get it right?

The majority of target areas are generally well known as areas of conservation importance within the county and there was no dispute about their selection. Post mapping analysis shows that the target areas contain 94.9% of the SSSI land area in the County and 73.6% of the County Wildlife Sites. Consultation feedback on some of the less well known areas has been limited as fewer people know the areas well enough to give an opinion.

The major sources of environmental data were assembled and considered when identifying the conservation target areas and the mapping work carried out by an experienced ecologist. Despite these factors, it was not always simple to justify choices that were in some cases based on local knowledge and opinion. A detailed scoring system and threshold criteria may have helped during consultation but we do not believe it would have significantly altered the conservation target area boundaries. In order to make the process as transparent and repeatable as possible, sources of local knowledge that had been used to inform mapping choices (location of habitat remnants or degraded habitat for instance) were captured in digital map format and are now held by TVERC.

A statistical analysis to determine the extent to which the Conservation Target Areas 'capture' the priority species and habitats confirmed our confidence in the conservation target area mapping (see appendix 4). Though the Conservation Target Areas cover only 17% of the land area of Oxfordshire, they contain 85% of the mapped UKBAP priority habitat and 83% of all records of UKBAP priority species were made within these target areas.

The nature of the particular species and habitats is suggested as a factor that determines the extent of occurrence within or outside a target area. A species that is fairly sedentary and/or faithful to a particular semi-natural habitat (chalk land butterflies for instance) is shown to be more likely to be found within a target area than more ubiquitous and mobile species (brown hare for instance). Habitats that are closely defined and only occur within fairly narrow physiographic limits (fens or unimproved calcareous grassland for instance) are more likely to be included in a conservation target area than more loosely defined habitats that occur within a broader range of physiographic conditions (lowland mixed deciduous woodland for instance).

4.2 Possible additions

The main area that may warrant inclusion is Upper Heyford Airfield and the railway cutting and quarries at Ardley. There is no clear consensus as to whether it should be included. Its location on the plateau means that the potential for restoration of limestone grassland on deep soils may be limited. Significant parts of the airfield have calcareous improved grassland rather than limestone grassland. However this land is important for birds such as skylark and meadow pipit.

4.3 Farmland birds and arable wildflowers

Certain target areas are important for farmland birds and arable wildflowers and there are also extensive areas outside target areas that have been suggested for inclusion - usually as an extension to existing areas. Some of the suggested additions are markedly different in character

from the cohesive landscape and biodiversity units that the target areas represent and have not therefore been included. Some of the suggested areas have been added where this does not compromise the overall cohesion of the target area character and targets (as described in Appendix 3).

Key areas suggested for inclusion during consultation are arable land at or towards the base of the Chilterns escarpment and a large area near Ipsden that has been defined as a hotspot for farmland birds *(Breeding Bird Survey of the Chilterns Area of Outstanding Natural Beauty 2002. Mike Shurmer for RSPB and Chilterns Conservation Board).* Part of these key areas are within mapped conservation target areas, especially the Chilterns Central area. An extensive swathe running from South Stoke to Chinnor could be added as a target area and this will be reviewed.

The aim of the Conservation Target Areas is the restoration of landscapes though the restoration of typical habitats. In areas important for farmland birds and arable wildliflowers, the aim is less about restoration and more about management of the existing, largely arable landscape.

It may be possible to define other areas of conservation importance for farmland birds and arable wildflowers on the Cotswold plateau. Land adjacent to the Swere Valley has been suggested. Another potential area is land in the Berkshire Downs.

4.4 Using the Conservation Target Area Maps

The Conservation Target Area Maps will be used to plan co-ordinated conservation action in Oxfordshire particularly in relation to meeting the aims and objectives of the Higher Level Scheme component of Environmental Stewardship. Priority target areas will be chosen and a lead partner identified for each. Target area partners from a range of organisations will use their local knowledge and the detailed target area maps (with information about current biodiversity resource – species and habitats, restoration potential and current land management) to identify a co-ordinated range of actions to maintain and enhance biodiversity on a landscape scale.

The target areas should also be taken into account as part of the planning system.

In PPS9, under the Section on Local Development Frameworks, there is the need to:-

(i) indicate the location of designated sites of importance for biodiversity and geodiversity, making clear distinctions between the hierarchy of international, national, regional and locally designated sites.

(ii) Identify any areas or sites for the restoration of new priority habitats which contribute to regional targets, and support this restoration through appropriate policies.

Although they should not be treated exclusively the target areas represent the main locations in Oxfordshire which can be viewed as both areas of significant ecological constraint as well as potential areas of ecological opportunity. In order to satisfy points (i) and (ii) above there is a strong argument for including the relevant target areas within each of the Local Development Frameworks currently being prepared by the Planning authorities accompanied by appropriate policies to help safeguard and enhance the biodiversity resource.

The target areas have defined boundaries but it is important that there is degree of flexibility in the interpretation of these boundaries. Land adjacent to or in the vicinity of target areas may have similar potential for habitat restoration or as a buffer for important habitats. Planning of conservation action will depend on the interest and willingness of landowners and keen landowners need to be encouraged even if their land holding lies outside target areas and especially if it is in the vicinity of target areas.

During consultation it was agreed that boundaries of target areas should be reviewed on a regular basis as conservation action takes effect and as new information comes to light.

Appendix 1. Conservation Target Area Mapping Data Sources

A list of datasets used during the Conservation Target Area mapping

GIS (computerised map) data

1. County Wildlife Sites
2. Proposed County Wildlife Sites
3. Proposed County Wildlife Extensions
4. Denotified Wildlife Sites (District Wildlife Sites map)
5. English Nature Sites of Special Scientific Interest
6. English Nature Ancient Woodlands Inventory
7. OWLs Landscape Description Units
8. OWLS Bioscore map
9. DEFRA Countryside Stewardship and Environmentally Sensitive Areas maps
10. Ordnance Survey Landline maps
11. Ordnance Survey profile (contour) layers
12. Environment Agency Floodplain maps
13. British Geological Survey Bedrock and Superficial Geology Layers
14. UK Perspectives Aerial Photographs
15. Lower Windrush Project Gravel Pits Database
16. Oxford City Sites of Local Importance for Nature Conservation
17. TVERC UK Biodiversity Action Plan Priority Habitat maps
18. Bucks, Berks and Oxon Wildlife Trust (BBOWT) Reserves
19. West Berkshire Wildlife Heritage Sites

Reports

1. Arable Wildflower Surveys. Northmoor Trust.
2. Breeding Bird Survey of the Chilterns Area of Outstanding Natural Beauty 2002. Mike Shurmer for RSPB and Chilterns Conservation Board.
3. Thames & Chilterns: Parkland & Wood Pastures with Veteran Trees Keith N A Alexander and Janet A Lister for English Nature.
4. Windrush Valley in Witney: Habitats. Graham Hawker for West Oxfordshire District Council.
5. Folly Farm, Faringdon Ecological Appraisal April 2005 Bioscan Report No. E1339R1.
6. Folly Park Faringdon: Habitats and Management by G Hawker for Vale of White Horse District Council 2003.
7. Towards a District Nature Conservation Strategy. Graham Hawker for Cherwell District Council 1998.

Databases

1. TVERC Recorder database for Oxfordshire (species records from a wide variety of sources including local naturalists)

Surveys

BBOWT Habitat Surveys 1979 to 1988

Other Data

1. Graham Hawker personal knowledge.

2. Personal communications from target area consultees (local naturalists, landowners, ecologists, planners, land management advisors and others).
3. Wychwood Project: Alan Spicer's mapping of species rich hedgerows in Wychwood

Appendix 2. A Summary of Rationale for Selecting the Target Area Boundaries and the Changes Made Through Consultation

Berkshire Downs Escarpment

The core areas on the escarpment are essentially the same as the core areas that resulted from the 2005 AONB chalk grassland strategy study. Small areas of more gently sloping land were excluded and the eastern area extends further west to include a buffer for Pigtrough Bottom. Here there is the greatest concentration of chalk grassland habitat. Also included were the banks along a connecting dipslope valley extending south into Berkshire where there are a number of chalk grassland sites and many archaeological features.

Main changes through consultation

Originally the two areas on the escarpment were mapped as separate target areas. However the landscape, habitats and targets are the same so they have been incorporated into a single target area. The land around Ashdown Park was included although it does not connect with the. Besides the Park and its woodland this area includes chalk grassland at Kingstone Down and land west of the Park where there has been some chalk grassland restoration along with arable farmland that is a target for stone curlew.

Bernwood

Encompasses the woodlands of Bernwood and Shotover Forests and the valley that runs through the centre. The valley section was extend south to include a group of species rich lowland meadows along the Holton Brook. The western boundary with the Oxford Heights East area is largely based on a change in geology.

Main changes through consultation

None.

Blenhiem and Ditchley Parks

This largely follows the boundary of the landscape definition unit that covers the Parks.

Main changes through consultation

Areas east of Charlbury were included due the presence of many species rich hedgerows.

Blewbury Downs South East

This is the main area for chalk grassland in the eastern section of the Berkshire Downs. The chalk grassland is mainly found on the steeper slopes, which form the core of this area. These extend into Berkshire as far as Streatley. Flatter areas are largely associated with racehorse gallops where patches of chalk grassland are also found. There are also some large blocks of woodland within the area and these were included in their entirety although the largest site, Unhill and Ham Woods extends beyond the slopes. The outlying Blewburton Hill is included as this lies quite close to the Downs.

Main changes through consultation

No significant changes though a connecting strip of land between Blewburton Hill and the Down was included. It was suggested that Lollingdon Hill, another outlying site, was also included but this is much further away than Blewburton Hill and its inclusion is less easy to justify. It was also

suggested that land in the valley bottom was included but this is a different landscape area that lacks the key habitats of this area.

Brill and Muswell Hill

Encompasses the prominent hills that crosses the county boundary and the largest part of the area lies within Buckinghamshire. Muswell Hill has good areas of grassland and there are remnants on Brill Hill. Flushes are abundant.

Main changes through consultation

None. Few comments were made on this area.

Chiltern Dipslope Valleys and Plateau

Includes the slopes of many of the dipslope valleys where chalk grassland and woodland are found. Some of the more peripheral valleys, which are largely lacking in such habitat, have been excluded. The plateau areas include the main areas of plateau woodland and common land as well as the extensive acid to neutral grassland at Crowsley Park and the adjacent sandy soils which have good potential for extending this habitat.

Main changes through consultation

None.

Chiltern Escarpment Central

Includes the more steeply sloping land along the escarpment in this section which is important for farmland birds and supports arable wildflowers.

Main changes through consultation

No significant change. See discussion for additional thoughts on the treatment of arable farmland.

Chiltern Escarpment North

Encompasses the main areas of chalk grassland and woodland between Chinor and Swyncombe. The are extends onto the plateau to include additional areas of woodland. The change in geology from chalk to clay with flints is often the used as the eastern boundary. The western boundary coincides with an OWLs landscape description unit boundary or where the steep escarpment slope begins to level out.

Main changes through consultation

Adjacent woodland on the plateau was drawn in more rigorously. It was suggested that land at the base of the escarpment should be included because of its value for farmland birds and arable wildflowers. However this is different landscape with different habitats and targets. However there is probably a need to consider such areas that are good for farmland birds and arable wildflowers further (see discussion).

Chiltern Escarpment South Central

This area is the main steeply sloping escarpment between Goring and Nuffield. It has the same key habitats as the north and south sections of the escarpment – chalk grassland and woodland though the grassland is much more restricted in distribution here. In places the escarpment extends along valleys that cut into the plateau. There is a gap between this area and the south section as there is an area near Goring where the escapement is much less steep, quite narrow and lacking woodland and chalk grassland habitat.

Main changes through consultation

None.

Chiltern Escarpment South

The steep and narrow escarpment along the edge of the Thames Valley. . In places the escarpment extends along valleys that cut into the plateau. The area extends as far as Mapledurham as non-designated chalk grassland sites occur here.

Main changes through consultation

No major changes. An Iron Age Hillfort at Bozedown was added.

Glyme and Dorn Valleys

The valleys of the Glyme and the Dorn and tributaries. Some sections of the Dorn Valley have little UKBAP habitat and the geology is largely Lias clay beyond Middle Barton. However it was important to encompass Little Tew Meadows, at the source of the Dorn, as this is the largest area of lowland meadow in North Oxfordshire and the land along the valley has potential for habitat restoration. The sources of a few small tributaries were not included as they lie outside farmland (one is in a village and one in a golf course).

Main changes through consultation

Land at Glyme Farm at the head of the Glyme Valley was added. This is an important plateau area for farmland birds. It was suggested that the Cockley Brook valley be extended further. The only important site here is Worton Wood. This is an atypical habitat for this area and it was decided not include this area. However it should be considered for possible inclusion especially if remnant grassland or wetland habitat is found here.

Kirtlington and Bletchingdon Parks and Woods

This includes the important parkland habitat at Kirtlington Park and areas with degraded parkland. Bletchingdon Park is also included though its importance is not known. There are many woods associated with the Parks and therefore the ancient woodlands to the south were also included. The Gallos Brook, where Weston Fen is found, is a natural boundary to the east.

Main changes through consultation

None.

Lower Cherwell

This area encompasses the floodplain of the valley but also includes land on the valley slopes between Tackley and Shipton-on-Cherwell where there is limestone grassland and a number of quarries with grassland, wetland and geological interest To the west Kidlington the area also follows the Oxford Canal where a number of meadow sites and wetland areas are found. The Canal is important for water voles.

Main changes through consultation

It was suggested that a wider area is included alongside the canal in the south. The canal is important for water voles and all the known areas of interest area included. While the fields west of the canal near Kidlington have some potential for habitat restoration it is far more important to target other areas in the main valley.

Lower Windrush

This area encompasses all the gravel pits in this area. Lowland meadow is a target habitat and therefore it extends to the centre of Witney as a number of sites are found here.

Main changes through consultation

The only change made was the inclusion of the most southerly pit is this area rather than in the Upper Thames area.

Northern Evenlode Valleys

This includes the narrow valleys running north from the main Evenlode Valley. West and north of Chadlington there are areas on the plateau where there has been habitat restoration and areas which support populations of rare arable wildflowers. These are in Countryside Stewardship. This also allowed the inclusion of the valley that includes Sarsgrove Wood.

Main changes through consultation

No major changes were made. It was suggested to widen the areas along the valleys to target limestone grassland restoration. It is sensible to target grassland restoration to the thinner soils on the slopes in the valleys. Extending beyond the valleys may be considered a long term aim.

Northern Valleys

This area includes sections of the two main northern valleys The southern section of the Sor valley was excluded. Although this would link the two areas included in this target area, the valley is wider here with gently sloping sides and no known sites for UKBAP habitat. Sandstone hills to the west and a section of the Stour Valley escarpment were included as these have similar grassland habitat or potential for similar grassland habitat as that found in the two valleys.

Main changes through consultation

No changes were made. It was suggested that the lower Sor Brook valley could be included to link the areas. The reasoning for its exclusion is given above.

Otmoor

The central core of the Otmoor Basin is obvious concentration of important habitat with extensive areas of grazing marsh, wet grassland, fen and meadows. Areas to the south, which is largely on clay rather than alluvium, were included because of habitat restoration on RSPB land and the presence of further meadows. To the north the area includes meadows on alluvium centred around Wendlebury Meads extending to include ridge and furrow meadows on the clay.

Main changes through consultation

Further land to the south at Beckley Park was included as this is within the Countryside Stewardship scheme. It was suggested to include extensive areas to the north east. While this has potential for restoration of meadows and wet grassland it is mainly arable and lacks these habitats at present. In the long term it could be considered a target but at present it is sensible to target the land in the core areas where there is existing important habitat. The same is true for a suggested extension westwards along the River Ray. The land along the Ray to the east has been marked as a key link zone as this would link the Otmoor area to the Ray Target Area.

Oxford Heights East

Encompasses the escarpment and valleys where the majority of UKBAP habitat is found. Areas on the plateau were included as these are important for arable wildflowers. The eastern boundary with the Bernwood target area is largely based on a change in geology.

Main changes through consultation

Areas with sandy soils were added due to their importance for arable wildflowers. Some areas of limestone on the plateau were excluded as these do not have the same importance for arable wildflowers.

Oxford Heights West

A complex area that covers Boars Hill, Hurst Hill the woodlands in the south east and west and the sandy soils stretching from Frilford to Cumnor. The boundary around much of Boars Hill reflects a change in geology from sands to clay. A thin area along the A34 to the south was included as this supports acidic habitats typical of the area as well as including a geological SSSI.

Main changes through consultation

An area was added to link Hurst Hill with the rest of the area. Land alongside the steams in the east was added. The area between Frilford and Cumnor was reduced in size so that it covers mainly the sandstone. A wider buffer was added around the south eastern woods. It was suggested that the lower western slopes of Boars Hill should be included to protect the watercourses that feed into the fens at Cothill. However the streams on these slopes feed south towards Abingdon, rather than west to Cothill, and so this area was not included.

Oxford Meadows and Farmoor

This area includes the Oxford Meadows SAC and surrounding river valley grassland. It also includes recent and long disused gravels pits near Cassington and further riverside land extending as far as Farmoor where there is scattered lowland meadow habitat. Farmoor Reservoir was included as this ties in with the wildfowl interest in the gravel pits.

Main changes through consultation

None

Ray

This encompasses all the known lowland meadow habitat in this area and extends into Buckinghamshire. This is found largely adjacent to the River and tributary streams and lies at least partly on the alluvium. Areas of meadowland on the clay were included as there is some wet grassland habitat here and there is potential for habitat restoration and it also includes significant areas of ridge and furrow.

Main changes through consultation

The main suggested extensions largely coincided with extensions made to include the main areas of ridge and furrow meadows. The area to the west has been included as a key link area to link this area with the Otmoor target area.

Shotover

Includes all the important habitat on Shotover Hill and extends off the hill to the west to include all the publically accessible country park land where further areas of woodland are found. It also includes two areas of woodland west of the Oxford Eastern Bypass.

Main changes through consultation

No major changes. It was suggested the area could be extended east to the south of Horsepath to include Coombe Wood. This site lies some distance from the target area and while it supports remnants of habitats found on Shotover Hill these are not known to be of significant interest. Geologically the land between is suitable for restoration of the habitats typical of the target area and if further survey finds that Coombe Wood is of significant interest this area could be considered as a suitable extension in the future.

South Cotswold Valleys

The valley of the Shill Brook encompassing lowland meadows, fen and limestone grassland. There are some rich sites but there are only remnants to the north. At Alvescot the area widens to include a number of meadows with remnant lowland meadow habitat.

Main changes through consultation

No changes were made. Feedback on this area was very limited.

Swere Valley and Upper Stour

This area combines the more open Swere Valley between South Newington and Swerford with the narrower more steeply sided valley to the west as far as its source at Priory Mill. It includes a similar narrow valley along a tributary at Hook Norton and a wider area along banks to the west of Hook Norton as far as the boundary with the River Stour watershed. Here it extends north to include the narrow valleys, banks and quarries in the Upper Stour and includes all the steeper land on limestone in this area.

Main changes through consultation

None. It was suggested that the area could be extended beyond the valley due to arable wildflower interest but this habitat is very different from that of the valley and therefore no change was made.

Tusmore and Shelswell Parks with Stoke Lyne Woodlands

The importance of the Parks are little known but there is extensive parkland habitat along with numerous woodlands. The concentration of ancient woodlands near Stoke Lyne were also included.

Main changes through consultation

None.

Thame Park

Encompasses Thame Park. This area has important parkland habitat with good numbers of veteran trees including some "truly ancient oaks" *(Thames & Chilterns: Parkland & Wood Pastures with Veteran Trees Keith N A Alexander and Janet A Lister for English Nature).*

Main changes through consultation

It was questioned as to whether this should be a target area. It is important to include all parkland of significant importance, except perhaps for small isolated areas. This is a large area and deserves

to be highlighted as a target area. Indeed it has already been targeted as it is the subject of a Countryside Stewardship agreement.

Thames and Cherwell at Oxford

The southern section of the Thames Valley at Oxford extending just south of Sandford-on-Thames and the Cherwell Valley extending as far as the A40. Includes all known lowland meadow habitat and other floodplain land with potential

Main changes through consultation

No major change. A few small areas were included including Hinksey Lakes and a wetland area north of the A40. It was suggested that the area could be wider near Marston but the land rises here and is much drier.

Thames Clifton to Shillingford

The riverside land between Clifton Hampden and Shillingford where a number of meadows and small areas of wet woodland and fen are found. There is a concentration of Loddon lily sites in this area. The area extends along the Thame to include Hurst Water Meadow and the gravel pits at Dorchester. Little Wittenham Nature Reserve was also included. Although the woodland habitat is not typical of rest of the target area, there is wet woodland adjacent to the Thames and lowland meadow habitat here, as well as public access and archaeological sites

Main changes through consultation

None

Thames Radley to Abingdon

An area that encompasses the existing, proposed and filled gravel pits at Radley. It extends south-west along a side channel of the Thames where wet woodland and fen habitat, which also occur within the gravel pit area, are found.

Main changes through consultation

None

Thames Wallingford to Goring

The floodplain area along the River Thames that includes the wet grassland and marshes in the area.

Main changes through consultation

No major change. The area was extended north of the Wallingford bypass to include an additional area of wet grassland.

Upper Cherwell

The floodplain of the valley on alluvium. The boundary extends eastwards in places to include the Oxford Canal.

Main changes through consultation

No change. It was suggested that this area encompass all the floodplain although it largely does already. It was suggested that it could be combined with the Lower Cherwell Valley area. Although there are similarities, the Lower Cherwell Valley is distinctly different with a greater range of habitats.

Upper Thames

The Thames Valley between Northmoor and Lechlade. This area is largely on the alluvium where the existing lowland meadow habitat is found. These are fairly scattered although there are some large sites but the land between has great potential for this habitat and wet grassland. It extends into Gloucestershire to include wet meadows at Lechlade.

Main changes through consultation

A large area near Northmoor was added due to its importance for nesting lapwing.

Upper Windrush Valley

This area includes the main valley between Witney and Burford and largely concentrates on the flat riverside land. Some areas of the valley sides, where there are steeper slopes and limestone grassland, were included. The numerous valleys running north were also included.

Main changes through consultation

At Swinbrook the area was extended onto the plateau to include large woodland sites as woodland is a feature in some of the valleys. It was suggested to widen the areas along the valleys to target limestone grassland restoration. It is sensible to target grassland restoration to the thinner soils on the slopes in the valleys. Extending beyond the valleys may be considered a long term aim.

West Oxon Heights, Woods, Hills and Parks

This is perhaps the most disparate target area. To the east the basis are small valleys that cut into the Oxford Heights (Midvale Ride) where wet woodland and fen are found. Land between the valleys has been included where there is woodland, parkland and acid grassland remnants on sandy soils. The valley of the Tuckmill Brook was included. Although separated from the main area it is a particularly important valley in the area. To the north-west a number of hills with woodland and parkland habitat, as well as remnant acid grassland on sandy soils, are included. The northern escarpment is also included as this has further areas of the typical habitats of the area.

Main changes through consultation

Additional areas at Coleshill were added in order to include all the parkland at Coleshill Park. A question remains as to whether the valley nearest Southmoor should be included. It does not connect with the main area but there are a few small areas of the typical habitats of the target area.

Wychwood and Lower Evenlode

The boundary encompasses the main areas of ancient woodland and the valleys that bisect the area along with a section of the southern Evenlode Valley sides where there are further areas of ancient woodland. The boundary largely follows landscape unit boundaries. The north western area has been included due to the presence remnants of limestone grassland.

Main changes through consultation

The area around the old airfield at Chasewood Farm was included as this has remnants of a variety of habitats.

Wytham

This area encompasses Wytham Hill. Besides the large woodland and grassland SSSI there is parkland habitat, a number of smaller woods and potential grassland interest on Beacon Hill to the west.

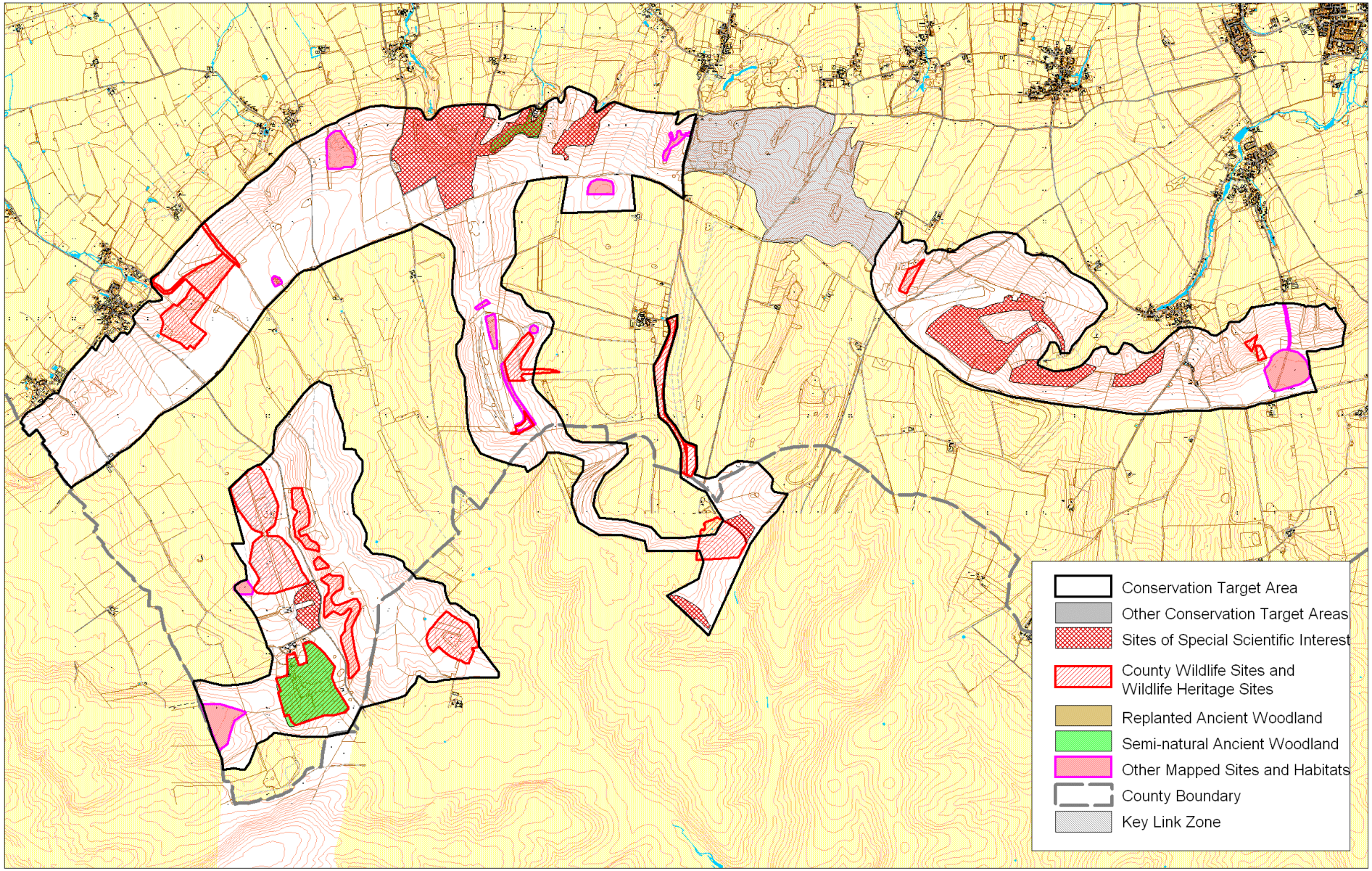
Main changes through consultation

No major changes.

Appendix 3 Conservation Target Area Maps and Statements

The maps show the target area boundary along with designated sites, ancient woodland and a combined layer of proposed county wildlife sites, BBOWT nature reserves that are not SSSIs and the other sites and habitats and information zones that were mapped as part of this project.

Berkshire Downs Escarpment Conservation Target Area



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Berkshire Downs Escarpment

The western section of the escarpment running from Letcombe to the county boundary, divided into two core sections that correspond to the areas identified in the AONB Chalk Grassland report. These sections have the main areas of chalk grassland and significant archaeological features such as Uffington White Horse and Castle, Wayland Smithy and Segsbury Camp. The area extends south of the most steeply sloping escarpment to the Ridgeway. It also includes slopes along hills running south into Berkshire and land including Kingston Down and Ashdown Park. Besides the further areas of chalk grassland this section is rich in archaeological features.

Joint Character Area: Berkshire and Marlborough Downs.

Landscape Types: Chalk Downland Slopes.

Geology and geomorphology: Chalk with a number of coombes.

Topography: A north and north west facing escarpment and east and west facing steep banks in the southern area.

Biodiversity:

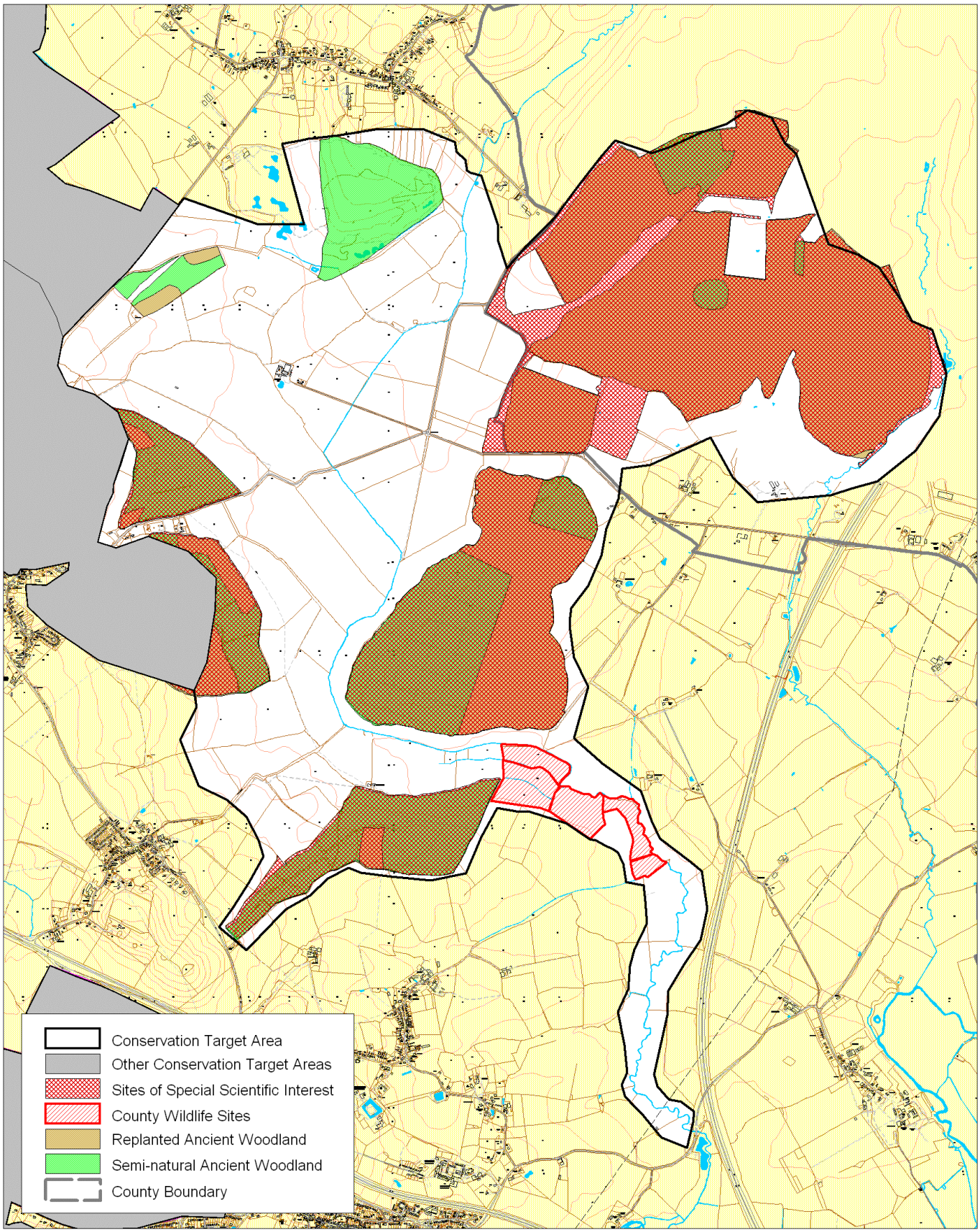
- Chalk grassland. Extensive areas of chalk grassland at White Horse Hill and Hackpen Hill. A number of smaller sites most of which are County Wildlife Sites. There are some areas of restored grassland.
- Woodland: There are a few plantations. The main sites are near Uffington, within the SSSI and at Ashdown Park.
- Parkland: Ashdown Park has some good veteran trees and includes an SSSI for the lichen flora on sarsen stones.
- Species: the arable land supports a good flora and the area is good for farmland birds. Stone curlew have been recorded in this area.

Access: Open access at Whitehorse Hill. A number of areas are included in CROW. The Ridgeway and other bridleways. There is also some access on National Trust land at Ashdown Park.

Archaeology: Many sites including Uffington White Horse, Uffington Castle, Wayland Smithy, Segsbury or Letcombe Castle and Seven Barrows.

Targets: Chalk grassland management and restoration. Protection of archaeological features. Management for arable wildflowers and farmland birds. Veteran tree and woodland management at Ashdown Park.

Bernwood Conservation Target Area



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Bernwood

This area encompasses the woodlands of Bernwood and Shotover Forest to the east of Horton-cum-Studley. It consists of the valley of the Holton Brook, Moorbridge Brook and Danes Brook, and the gently rising wooded land on each side. The area extends into Buckinghamshire. The Oxfordshire Heights East hotspot lies to the north west where the ground rises and geology changes.

Joint Character Area: Midvale Ridge, Clay Vale

Landscape Types: Wooded Farmland and Wooded Estateland. The Rolling Farmland to the south is largely wooded. River Meadowlands along the Holton Brook.

Geology: Largely Oxford Clay mudstone with some small areas of sandstone. There is alluvium along the brooks which forms a wider area between Stanton Great Wood and Waterperry Wood. There are also some small areas of river terrace sands and gravels.

Topography: A flat river valley that is narrow to the south and wider to the north with gently sloping valley sides along the western, eastern and northern edge.

Biodiversity:

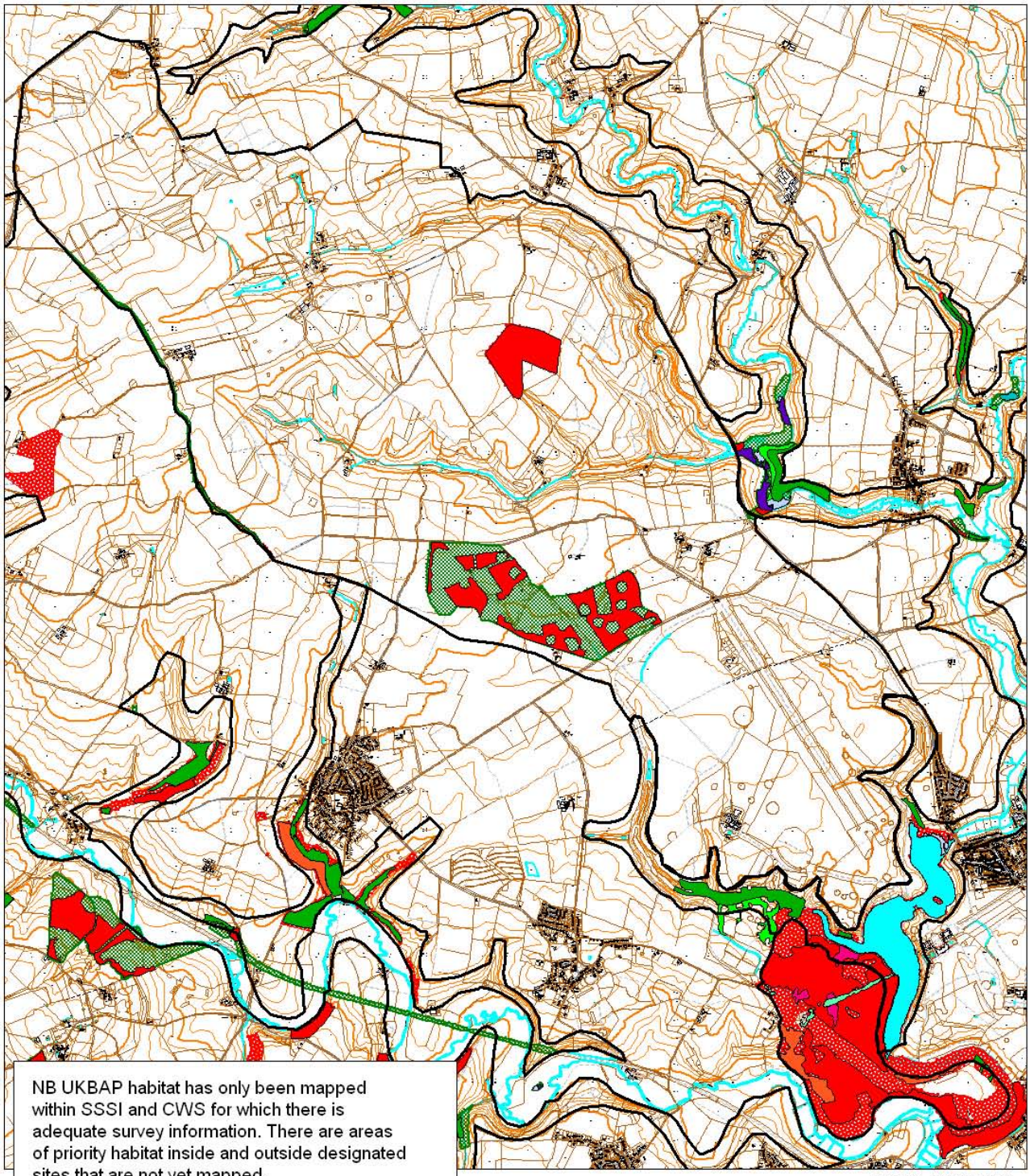
- Woodland. Extensive areas of semi-natural ancient woodland and replanted ancient woodland including the SSSI's of Waterperry Wood, Holton Wood, Stanton Great Wood and Holly Wood and extending into Buckinghamshire to include Shabbington Woods SSSI. Waterperry and Shabbington form Bernwood Forest Nature Reserve and are especially important for butterflies.
- Lowland Meadows: There are a group of meadows along the Holton Brook to the south of the area and Bernwood Meadows SSSI towards the north-east. Grassland is an important component along the rides in some of the woods, especially in Waterperry and Shabbington Woods where species rich rides and intersections have been created. There are areas of fairly acidic wet neutral grassland between the remains of Studley Wood and the surrounding golf course.
- Species: The woodlands are important for butterflies.

Access: Bernwood Forest Nature Reserve has public access. Bernwood Meadows Nature Reserve is managed by BBOWT.

Archeology:

Targets: Woodland management, management and restoration of lowland meadows along the streams.

Blenheim and Ditchley Parks Conservation Action Target Area with CWS, SSSI and UKBAP priority habitat (see KEY for sites and habitats)



NB UKBAP habitat has only been mapped within SSSI and CWS for which there is adequate survey information. There are areas of priority habitat inside and outside designated sites that are not yet mapped.

TVERC January 2006

Blenheim and Ditchley

This area includes Blenheim Park and Ditchley Park and extends onto the farmland and woodland owned by the estates.

Joint Character Area: Cotswolds

Landscape Types: Wooded Estatelands

Geology: Mainly limestone.

Topography: On the relatively flat Cotswolds plateau. Ditchley has two stream valleys while the Glyme Valley hotspot area intersects with Blenheim.

Biodiversity:

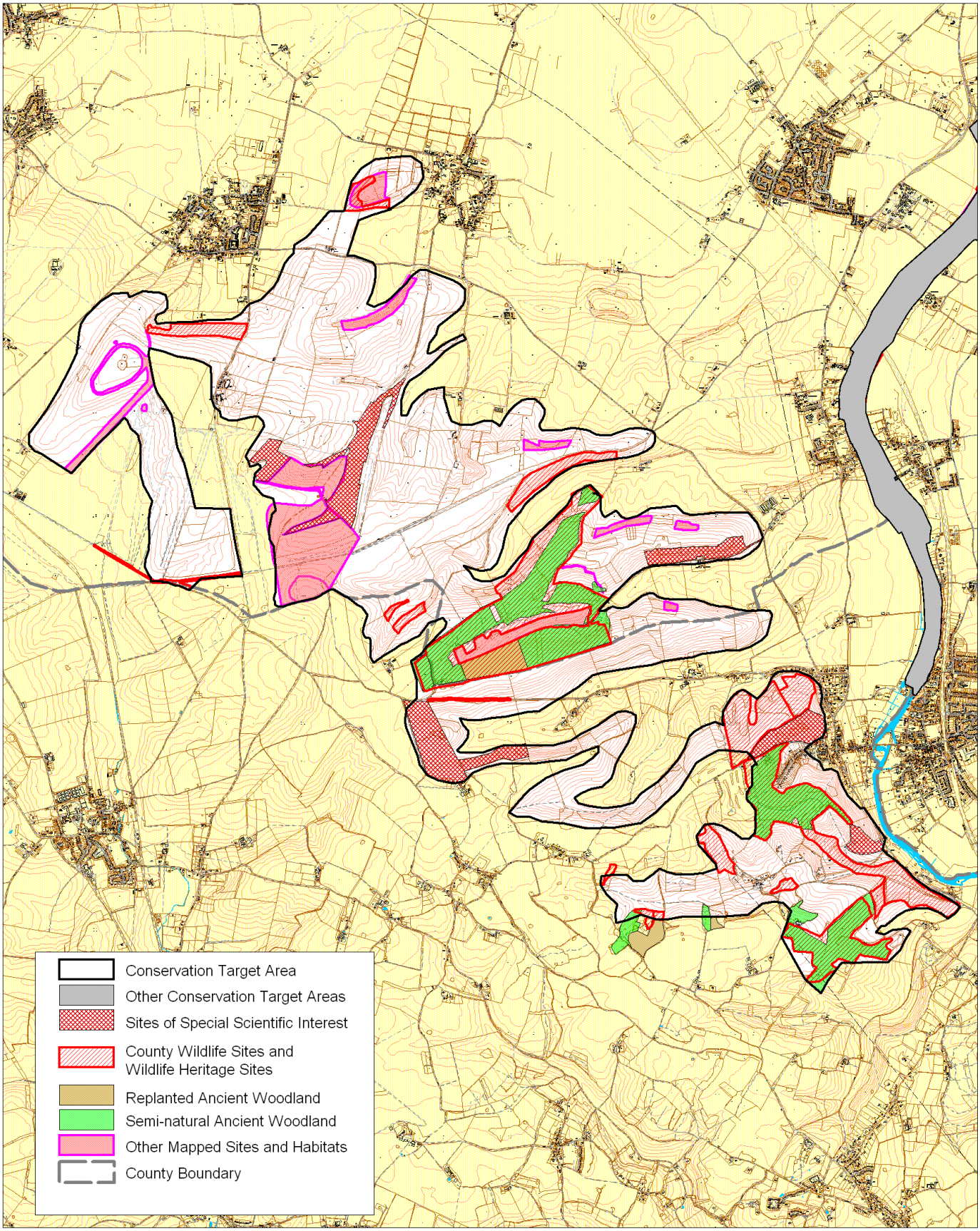
- Parkland: Centred on two areas of historic parkland with high biodiversity. At Blenheim there are areas of old wood pasture that are an SSSI.
- Woodland: There are many large areas of woodland especially at Ditchley though areas of ancient woodland have been partly or entirely replanted. Sites include Out Wood SSSI and Kings and Wootton Woods CWS.
- The historic green lane "The Saltway" is the western boundary – this has limestone grassland, including a population of downy woundwort and species rich hedgerows.
- Species: There is some arable wildflower interest at Ditchley.

Access: Parts of Blenheim are accessible to the public. Bridleways include the Saltway.

Archaeology: Two historic parklands.

Targets: Parkland management and restoration, woodland management and restoration, arable wildflowers.

Blewbury Downs South East Conservation Target Area



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Blewbury Downs South East

The Berkshire Downs area to the south east of Blewbury. The area takes in the steeper chalk slopes and extends into Berkshire as far as Streatley.

Joint Character Area: Berkshire and Marlborough Downs

Landscape Types: Wooded Downlands

Geology: Chalk

Topography: Steep banks on the Berkshire Downs escarpment and dry valleys that cut into the escarpment.

Biodiversity:

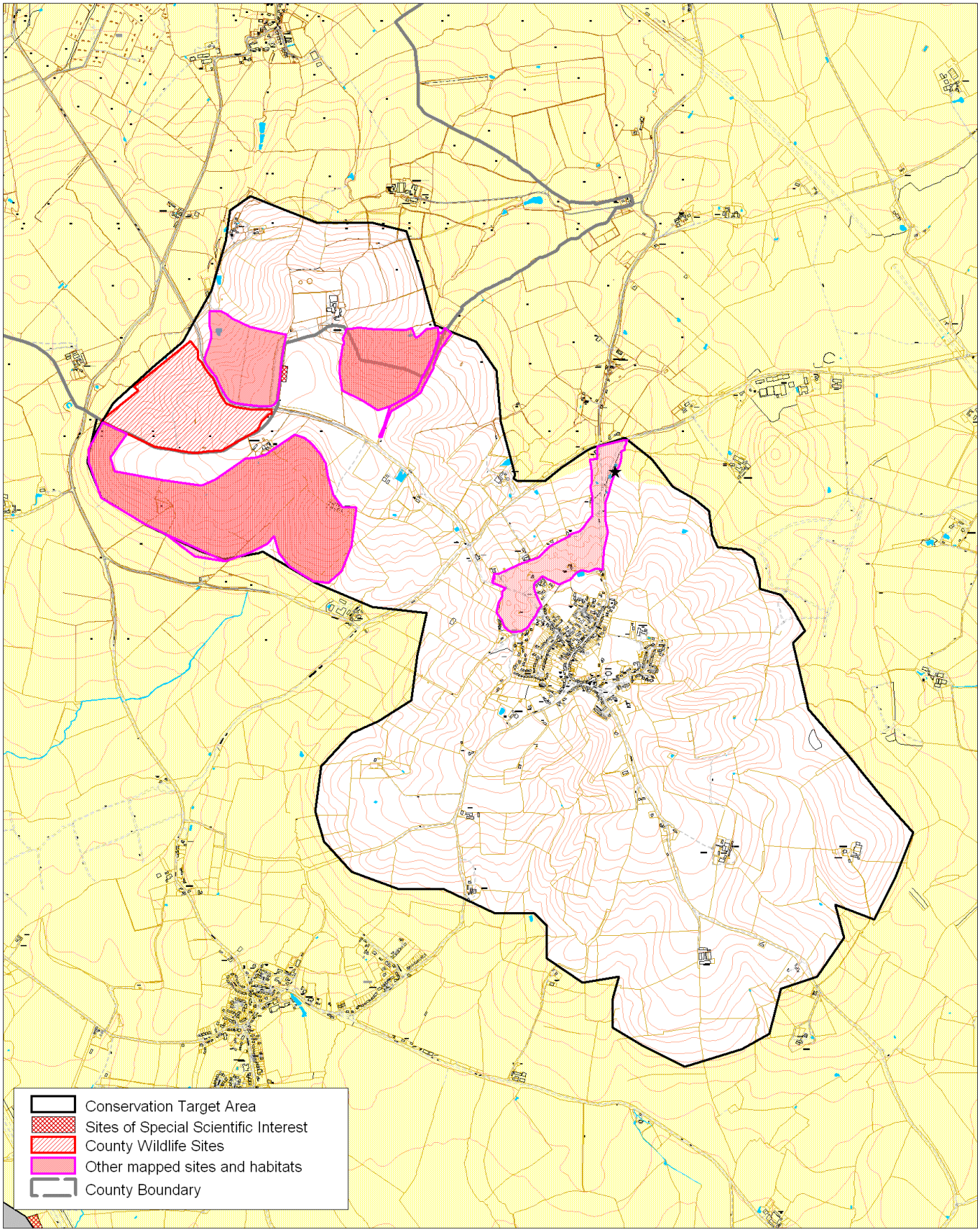
- Chalk Grassland: extensive areas along banks throughout the area. Some restoration work has also taken place.
- Lowland Mixed Deciduous Woodland and Beech Woodland: One large site in Oxfordshire with both types of woodland. There is also woodland at Streatley and some plantations.
- Species: Stone curlew target area. An important area for butterflies. An important area for arable wildflowers.

Access: The area is crossed by the Ridgeway and other byways and bridleways. It includes the National Trust land at Streatley.

Archaeology: Crossed by the Devil's Ditch and Grim's Ditch. There is a Roman Temple on Lowbury Hill.

Targets: Chalk grassland management and restoration. Management of farmland for stone curlew and arable wildflowers. Woodland management.

Brill and Muswell Hills Conservation Target Area



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Brill and Muswell Hill

Brill and Muswell Hill. Only the northern slopes of Muswell Hill are in Oxfordshire:

Joint Character Area: Midvale Ridge

Landscape Type: not defined

Geology: Sand capped hills with bands of Purbeck limestone, sandstone and siltstone and Kimmeridge sandstone, siltstone and mudstone on the slopes.

Topography: Two prominent hills. Muswell Hill has steep slopes, as does the northern part of Brill Hill. The southern slopes of Brill Hill are less steep.

Biodiversity:

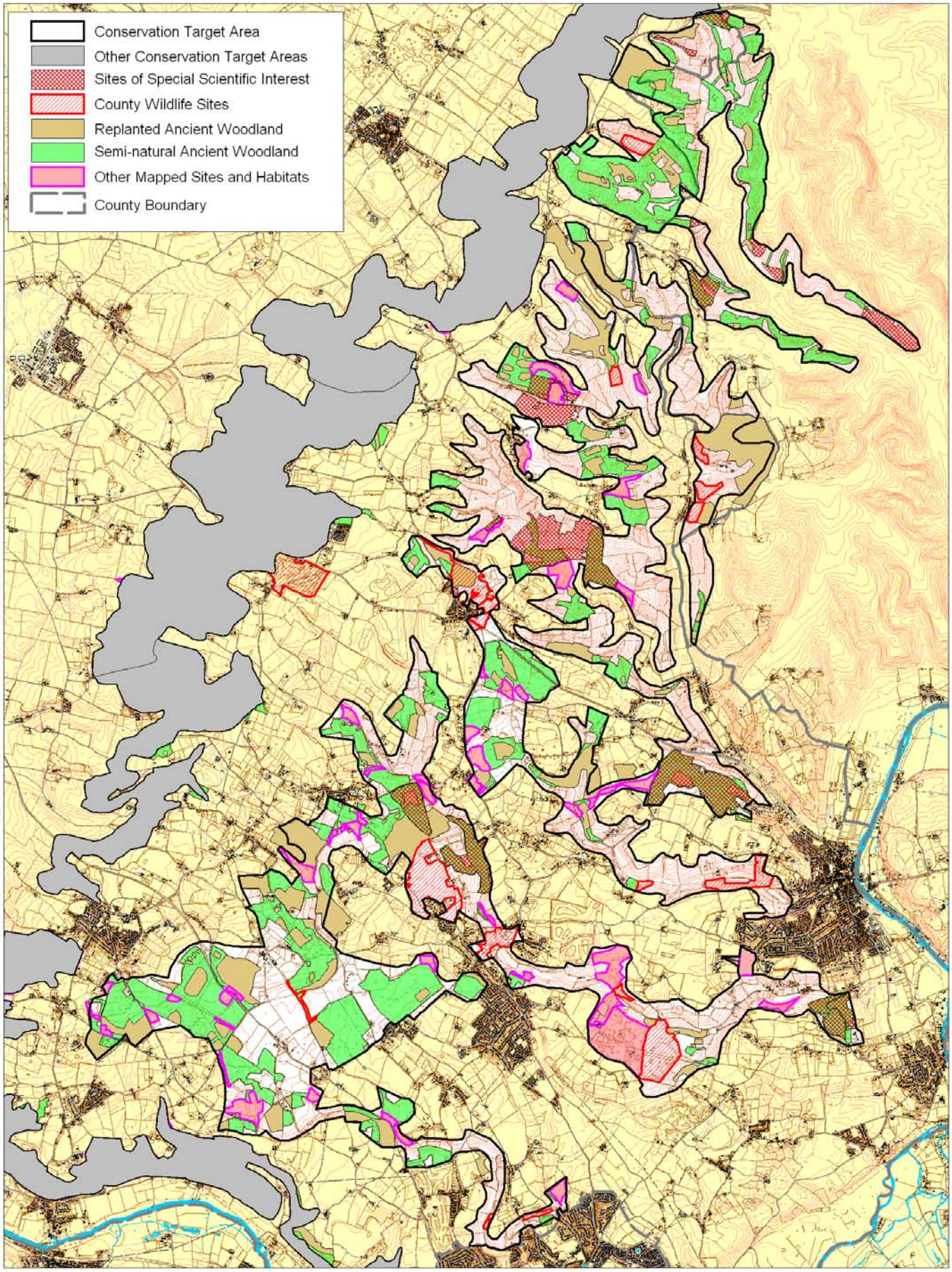
- Lowland Meadow: Muswell Hill has extensive areas of strongly acidic lowland meadow habitat though. Some areas appear to have great potential for this habitat and perhaps some acid grassland. Remnants are found elsewhere including on Brill Common where extensive pits have been dug in the past and the grassland is more calcareous in nature.
- Fen: remnants present in small areas in the many largely rush dominated flushes found on the hill which are a mixture of fen and wet grassland habitat.
- Acid grassland: some areas have extensive patches of Bracken including in the County Wildlife Site at Muswell Hill and the moto-cross circuit. There may be remnant areas of acid grassland. The soils are certainly suitable.

Access: Brill Common has open access. There are footpaths elsewhere

Archaeology:

Targets: Lowland meadow management and restoration. Acid grassland restoration. Management of flushes.

Chilterns Dipslope and Plateau Conservation Target Area



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Chiltern Dipslope Valleys and Plateau

This complex area consists of the steeper side of the chalk valleys that cut through the plateau and key areas of the plateau where the main areas of woodland and heathland remnants are found. These valleys run into Buckinghamshire to the north. Valleys with chalk grassland or significant woodland at the edge of the area are excluded along with the flat chalk areas at the heads of the valleys.

Joint Character Area: Chilterns

Landscape Types: Wooded Estate Slopes and Valley Sides along the valleys. Wooded Farmland on the plateau.

Geology: The valleys are chalk. On the plateau there are deposits of sand, gravel and clay with flints. Areas with clay with flints are largely excluded except where there are extensive woodland areas.

Topography: Narrow steep sided chalk valleys running from the north east to the south east cut through the flatter Chilterns plateau.

Biodiversity:

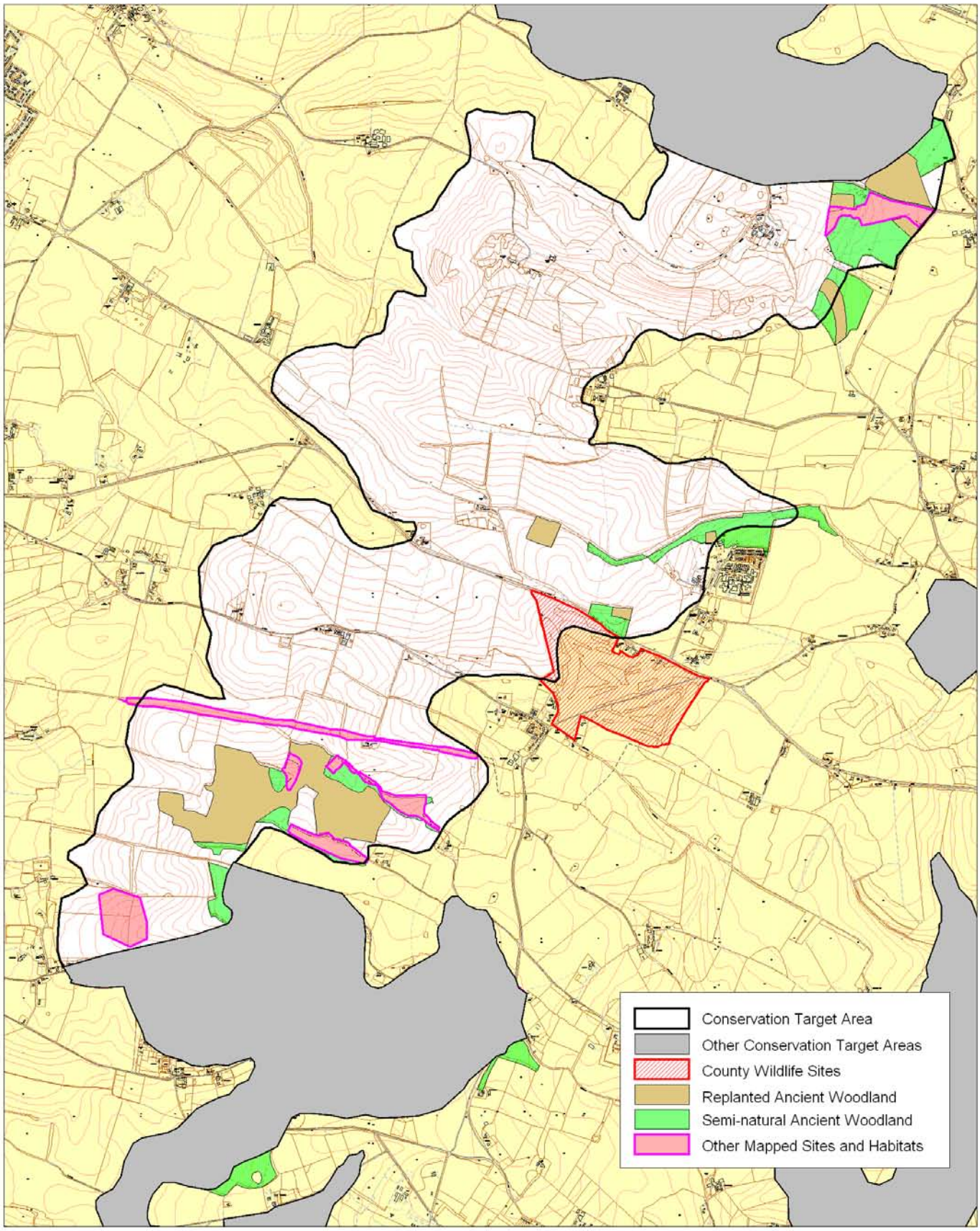
- Chalk Grassland: The steeper slopes support a number of relatively small chalk grassland sites.
- Woodland: There are with numerous areas of ancient woodland with beech woodland and some lowland mixed deciduous woodland including SSSI's at Bix, Pishill, Harpsden and Bear, Oveys and Greatbottom Wood. The plateau areas included extensive areas of woodland in the area running from Crays Pond to Sonning Common and south of Nettlebed.
- Heathland: This area includes remnants of heathland on the Chiltern Commons, in association with some of the woodland.
- Further areas of plateau land are found at Crowsley, where there is important parkland and acid grassland habitat, Gillots Field and the adjacent geological SSSI at Henley are also included.
- Species: the arable land is important for arable wildflowers and farmland birds.

Access: Warburg Reserve at Bix, a number of areas of common land, Gillots Field at Henley and many bridleways and footpaths.

Archaeology:

Targets: Chalk grassland management and creation along the valleys. Heathland restoration on the plateau. Woodland management throughout. Management for farmland birds and arable wildflowers.

Chilterns Escarpment Central Conservation Target Area



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Chilterns Escarpment Central

This is the section of the escapement between Swyncombe and Hailey.

Joint Character Area: Chilterns

Landscape Types: Wooded Estate Slopes and Valley Sides.

Geology: Chalk

Topography: A north-west facing escarpment. This section is less steep than other parts of the escarpment.

Biodiversity:

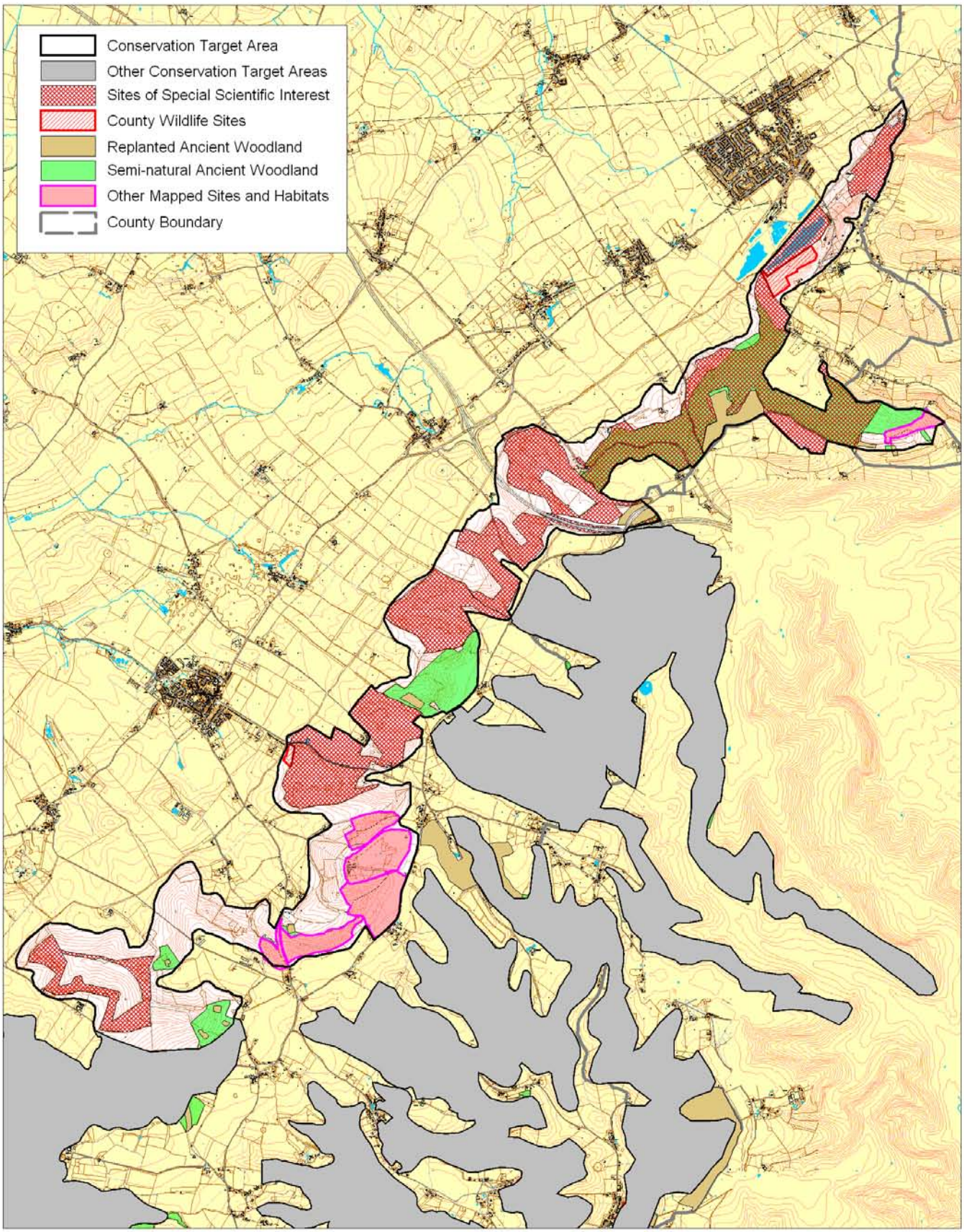
- Cereal Field Margins: These support arable wildflowers such as shepherd's needle. There is a good diversity of other arable wildflowers in this area. Good numbers of fields have been managed with the conservation headlands as part of the Countryside Stewardship scheme.
- Farmland Birds: A significant part of a key area for farmland birds in the Chilterns is included in this target area. Species present include corn bunting, grey partridge, linnet and skylark.
- Other habitats: There are a few areas of ancient woodland and one chalk grassland site at Nuffield Common.

Access: Numerous bridleways are found here including the ridgeway.

Archaeology: Grims Ditch crosses the area to the south.

Targets: Arable wildflower conservation. Farmland birds conservation.

Chilterns Escarpment North Conservation Target Area



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Chiltern Escarpment North

The steepest parts of the escarpment running north from Swyncombe. At the northern end includes a section of the plateau and part of a dipslope valley to encompass extensive areas of woodland continuous with woodland on the escapement.

Joint Character Area: Chilterns

Landscape Types: Wooded Estate Slopes and Valley Sides.

Geology: Mainly chalk but includes some clay-with-flints on the plateau to the north.

Topography: A steep west facing escarpment and some flat plateau land to the north

Biodiversity:

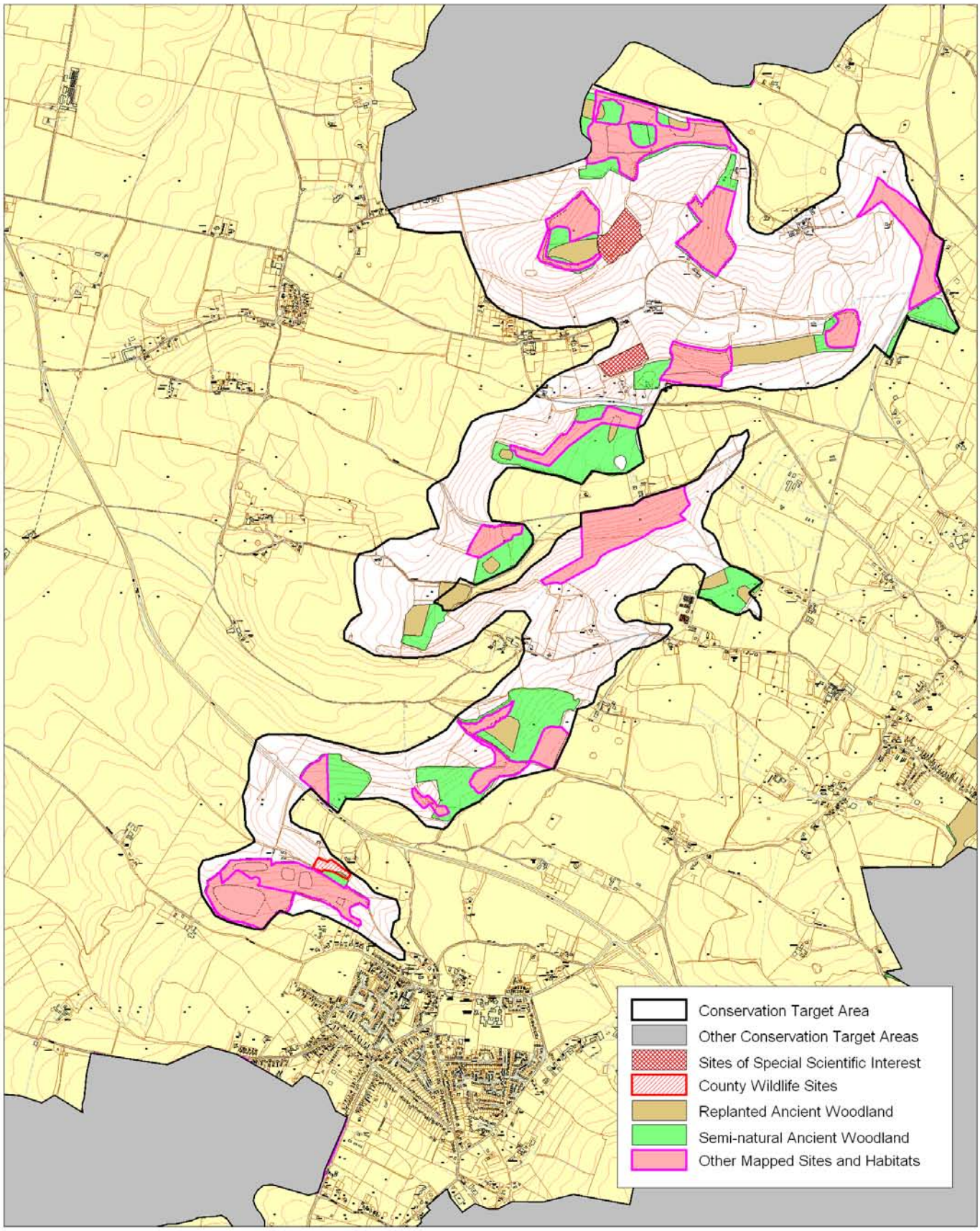
- Chalk grassland: extensive SSSI chalk grassland and a few smaller areas including Oakley Nature Reserve. Associated with these areas are small areas of chalk heath and juniper scrub.
- Woodland: Extensive beech and yew woodland, including one area of yew woodland, and lowland mixed deciduous woodland, especially at the northern end and at Watlington Park.
- Parkland: Watlington Park supports important parkland habitat.

Access: Aston Rowant National Nature Reserve, National Trust land at Watlington Hill, BBOWT reserves at Chinnor Hill and Oakley Hill

Archaeology:

Targets: Chalk grassland management and restoration, juniper management, chalk heath management, woodland management.

Chilterns Escarpment South Central



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Chilterns Escarpment South Central

This part of the escarpment runs from Hailey to Woodcote.

Joint Character Area: Chilterns

Landscape Types: Wooded Estate Slopes and Valley Sides.

Geology: Chalk

Topography: A steep escarpment. Though generally north-west facing dry valleys run into the Chilterns plateau and there are some south and north facing slopes.

Biodiversity:

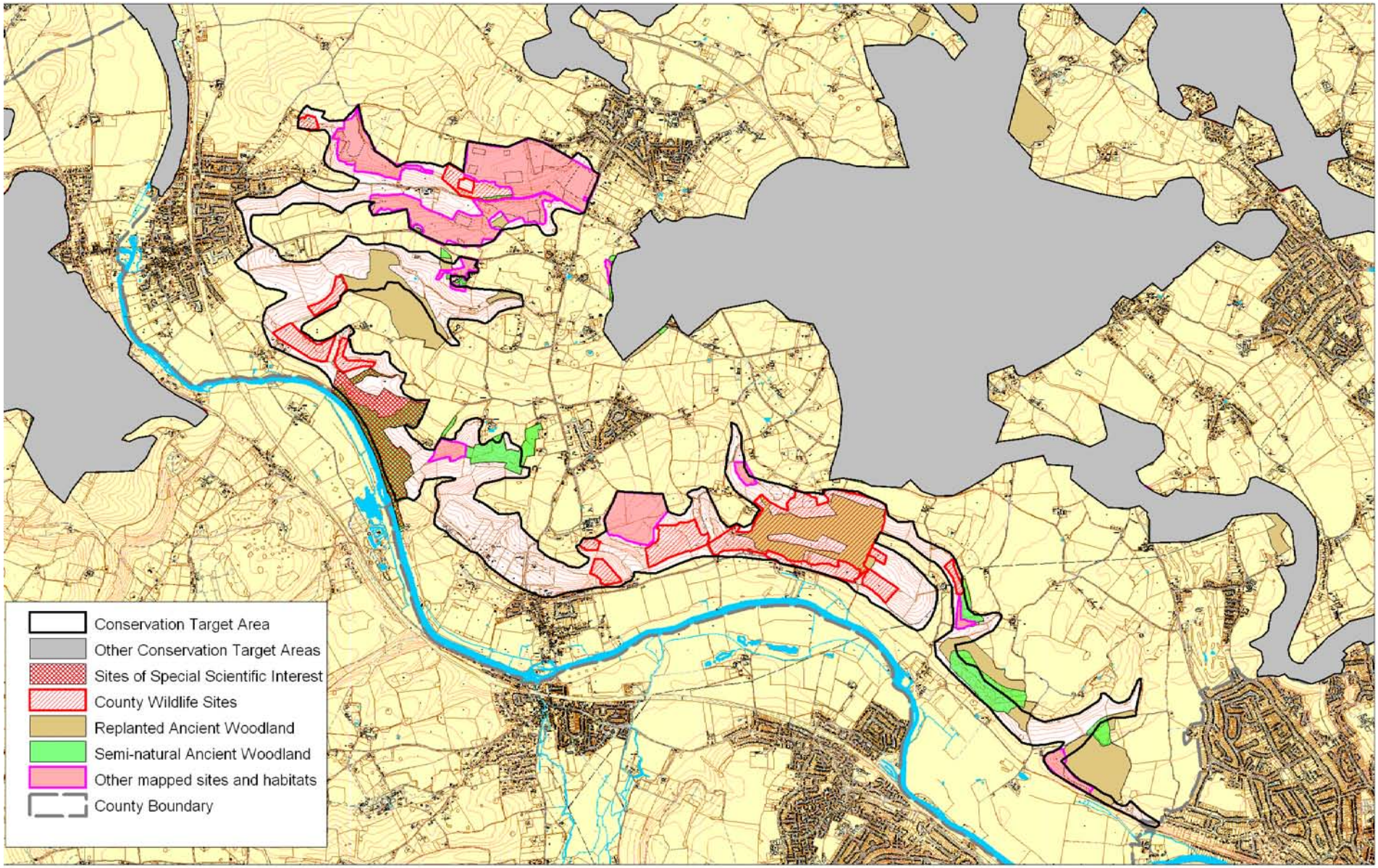
- Woodland: Beech woodland and lowland mixed deciduous woodland is abundant on these slopes and there are many Chiltern Heritage Woodlands.
- Chalk grassland. Less extensive here and found in a few small sites at Warren Bank, Berins Hill Bank and Langtree House Bank. The steep chalk slopes have good potential to extend these areas.

Access: Largely restricted to bridleways and footpaths. Warren Bank is a BBOWT nature reserve.

Archaeology:

Targets: Woodland management, chalk grassland management and restoration.

Chilterns Escarpment South Conservation Target Area



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Chilterns Escarpment South

This is the escarpment from Goring to Mapledurham and includes some dry valleys that cut into the Chilterns plateau.

Joint Character Area: Chilterns

Landscape Types: Wooded Estate Slopes and Valley Sides.

Geology: Chalk

Topography: Steep west and south facing escarpment and steep banked dry valleys running east and north.

Biodiversity:

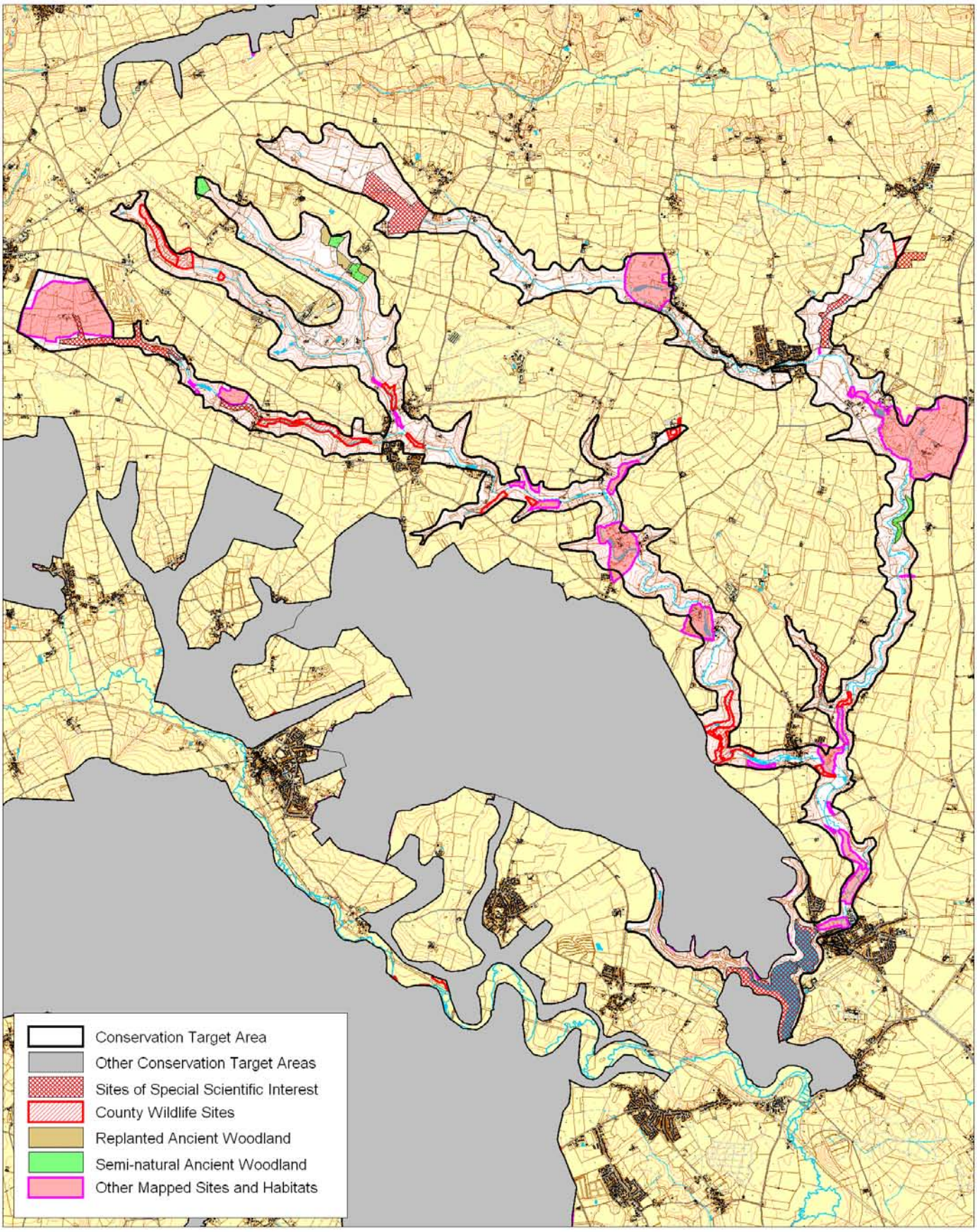
- Chalk grassland: Numerous banks of chalk grassland with concentrations near Goring and between Pangbourne and Mapledurham. Many are County Wildlife Sites and there is also an SSSI at Hartslock.
- Woodland: There are a number of ancient woodland sites with beech and yew woodland especially near Goring which includes Hartslock SSSI. Further east Bottom Wood, near Hardwick, is the largest site.
-

Access: Largely restricted to bridleways and footpaths. There is a BBOWT nature reserve at Hartslock.

Archaeology:

Targets: Chalk grassland management and restoration, woodland management.

Glyme and Dorn Conservation Target Area



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Glyme and Dorn Valley

The whole Glyme Valley from it's source near Chipping Norton to Blenheim Park and including some tributary valleys, especially the Dorn.

Joint Character Area: Cotswolds

Landscape Types: Wooded Pasture Valleys and Slopes

Geology: For most of its length the Glyme Valley cuts through limestone rocks and there are also bands of the Sharp's Hill sandstone and limestone. West of Radford the geology is more varied with bands of Lias mudstone and siltstone and some of the iron rich Marlstone limestone as well as other limestone. The Dorn is similar as it also cuts through the limestone and has Lias mudstone and siltstone in its upper reaches. The main variation is the presence of some Horsehay Sand east of Middle Barton. Alluvium is present along the base of the valleys.

Topography: Mainly narrow valleys running north and then west. The valley sides range from steeply sloping in the narrower section to much more gently sloping where the valleys widen out.

Biodiversity:

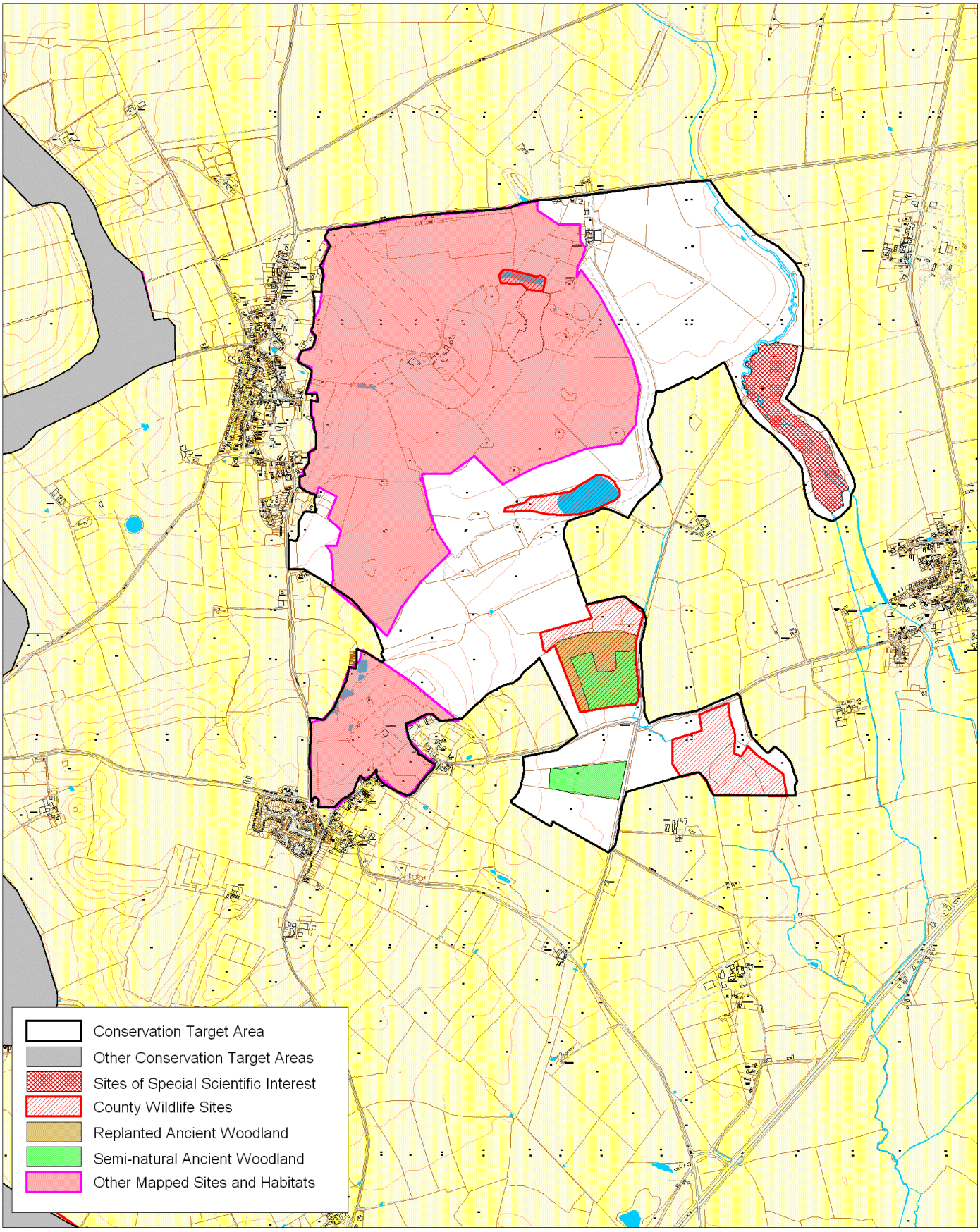
- Limestone grassland: there are numerous banks of limestone grassland scattered along the Glyme and lower reaches of the Dorn. These include a number of SSSI's and County Wildlife Sites. There are other banks with remnant limestone grassland habitat.
- Lowland Meadow: on the banks and more gently sloping Lias sections. The largest site is Little Tew Meadows SSSI at the top end of the Dorn.
- Fen, swamp and reedbed: scattered fen throughout the valley with occasional areas of swamp. There is a concentration between Wootton and Glympton. Along the Cockley Brook, a tributary of the Dorn the largest fen area is found at Middle Barton Fen SSSI. Remnant habitat is found near Woodstock. There is a reedbed at Hollybank Marsh on the Dorn.
- Parkland: There are parklands at Glympton, Kiddington, Heythrop, Middle Barton and Sandford St. Martin. However the status of the habitat in these parklands is largely unknown. The Lower Glyme flows through Blenheim Park.
- Woodland: There are few sites and most are plantation. There is some lowland mixed deciduous woodland at Priory Wood and another small site in the Upper Glyme.
- Acid grassland: remnants are found at Ovens Gorse though this is mainly dominated by bracken.
- Eutrophic Standing Water: found in parkland lakes and a large pond in the Upper Glyme. The largest site is at Blenheim Park.

Access: Blenheim Park is accessible to the public as is the nearby Woodstock Meadow. Wootton Jubilee Fields has public access. There is BBOWT nature reserve in the Upper Glyme. Elsewhere access is restricted to bridleways and footpaths.

Archaeology: There are medieval village sites in the Upper Glyme.

Targets: Limestone grassland management and recreation, lowland meadow management and restoration, Fen, swamp and reedbed management and restoration, parkland/veteran tree management and restoration.

Kirtlington and Bletchingdon Parks and Woods Conservation Target Area



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Kirtlington and Bletchingdon Parks and Woods

The historic parklands at Kirtlington and Bletchingdon, including areas of degraded parkland, the woodlands to the east of Bletchingdon and including Weston Fen at the east edge.

Joint Character Area: Cotswolds and Thames and Avon Vales.

Landscape Types: Wooded Estatelands and Clay Vale to the south east though is well wooded.

Geology: Cornbrash limestone in the east, Kellaways and Oxford Clay in the east. Some areas of sand and gravel and alluvium along the Gallos Brook at the eastern edge.

Topography: Relatively flat plateau land.

Biodiversity:

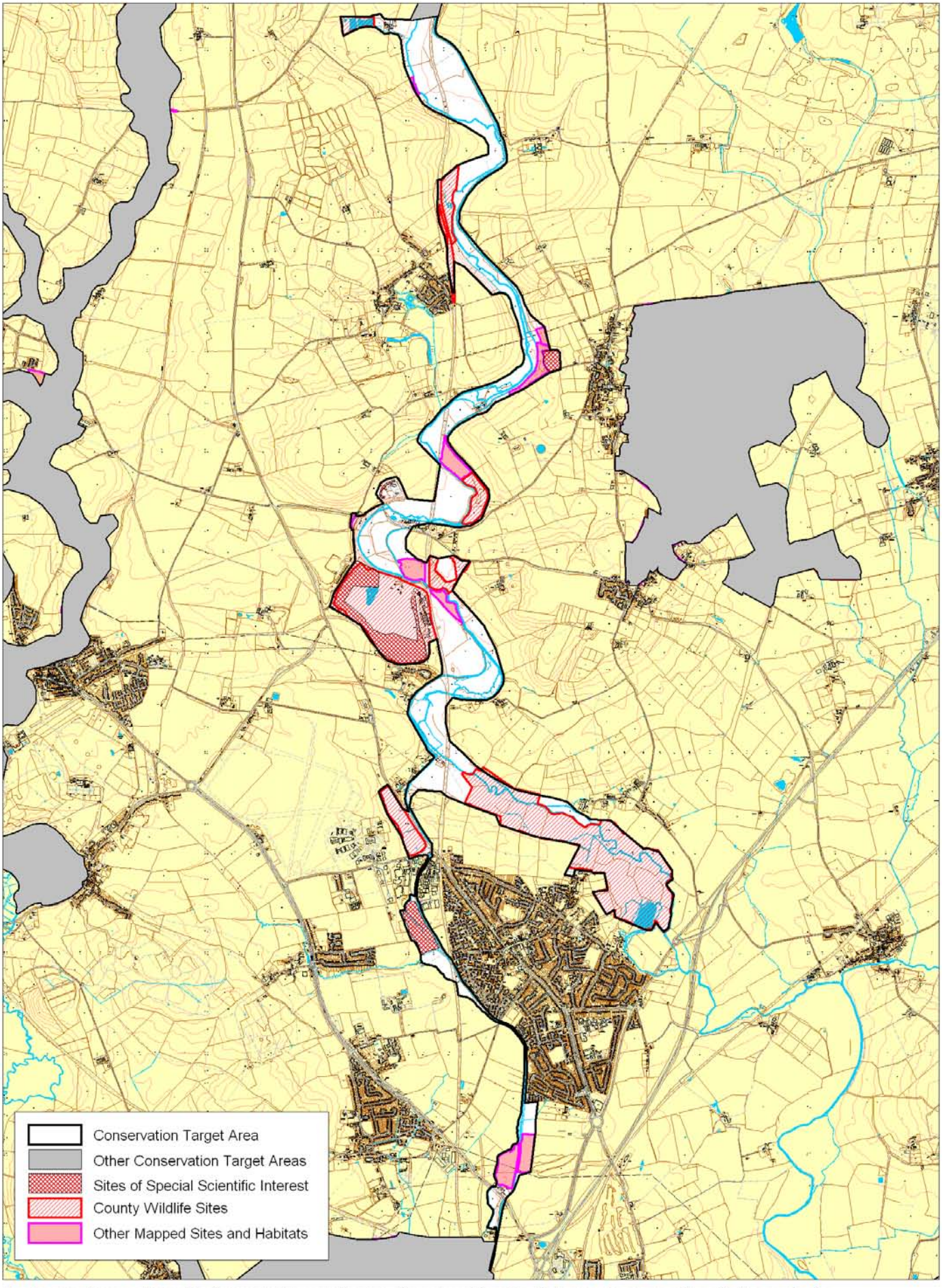
- Parkland: rich parkland habitat at Kirtlington with many veteran trees with long term management and restoration agreed. Outside the main park there is are degraded areas while Bletchingdon Park may have some parkland habitat but has not been assessed yet.
- Lowland Mixed Deciduous Woodland: The most important woodlands are to the south east where there are three County Wildlife Sites. There are other areas of woodland associated with the parks with one area of ancient woodland.
- Fen, swamp and wet woodland. There is an area of fen habitat at Weston Fen SSSI along with wet woodland. The largest of the Kirtlington Park lakes has a good sized reedbed and wet woodland at the west end.
- Limestone grassland: found at Stonepit Hills at Weston Fen SSSI.

Access: Restricted to bridleways and footpaths.

Archaeology:

Targets: parkland management and restoration. Woodland management and perhaps some planting to link sites. There is little potential to extend the area of fen, swamp and wet woodland except perhaps along the Gallos Brook. The plateau soils may be too deep and rich to allow the restoration of rich limestone grassland in the east of the area though some buffer areas near Stonepit Hills could be considered.

Lower Cherwell Valley Conservation Target Area



Lower Cherwell Valley

The Cherwell Valley from just south of Lower Heyford to Kidlington. Includes sections of valley side where the slopes are steeper and BAP priority habitats are found and includes a number of limestone quarries on the valley edge. To the south it includes a corridor along the Oxford Canal running south almost to Wolvercote.

Joint Character Area: Cotswolds and Thames and Avon Vales.

Landscape Types: River Meadowlands with small areas of Clay Vale. The quarry sites are in Wooded Estateland and Estate Farmland Area though are not typical of the landscape. Along the canal at Kidlington there are small areas of Lowland Village Farmlands and Alluvial Lowland.

Geology: The floor of valley is alluvium with some sand and gravel deposits. The areas of valley sides included in this area are limestone.

Topography: Flat riverside land, some east or west facing slopes and some quarries.

Biodiversity:

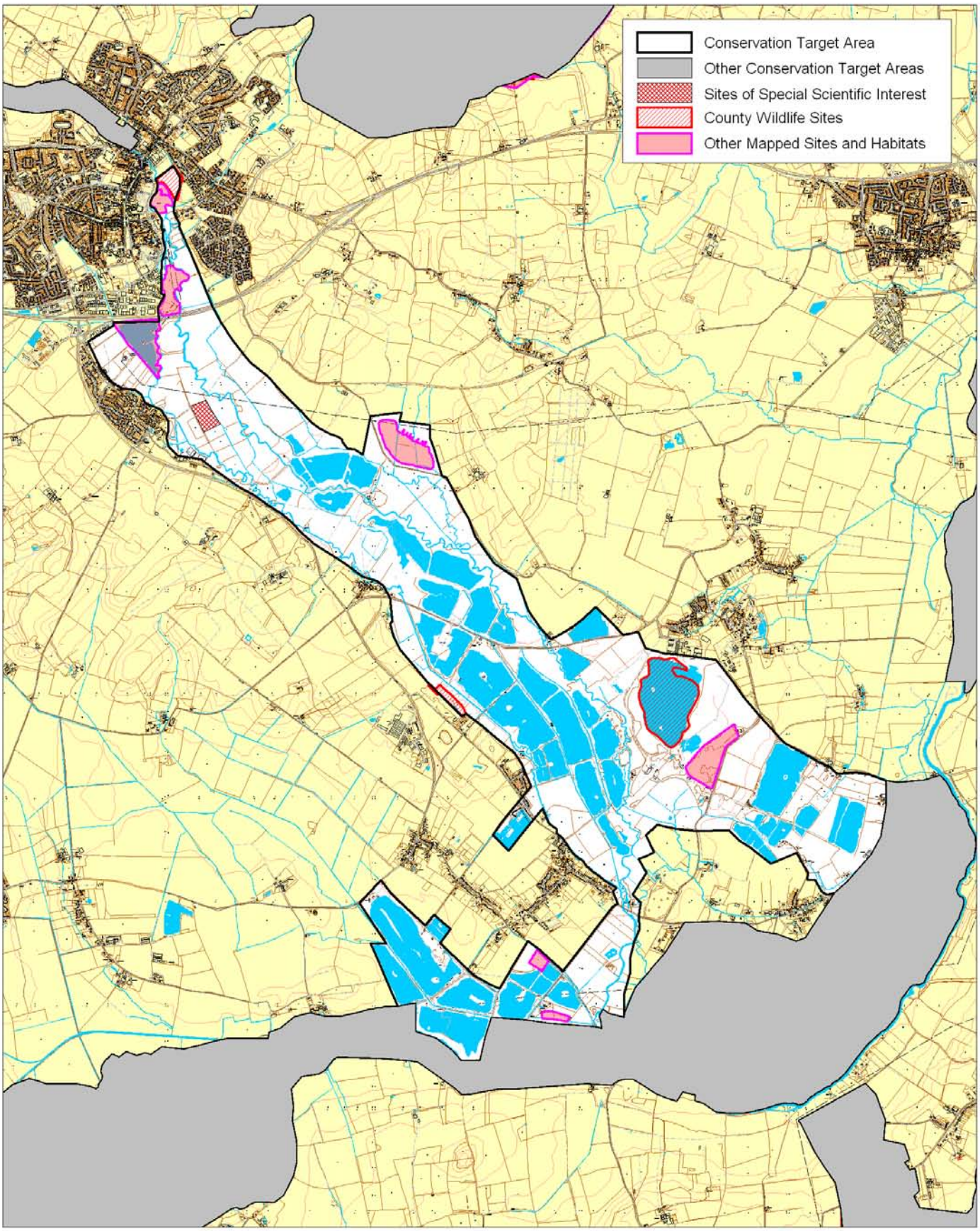
- Swamp. There are a variety of sites which including Enslow Marsh, an area next to the oxbow lake at Northbrook Marsh, riverside land south of Enslow, including some degraded sites, in part of Rushy Meads SSSI and within Shipton-on-Cherwell Quarry.
- Reedbed. There are areas in the area east of Kidlington and an area has been created next to the canal south of Kidlington.
- Lowland meadow. The main site is Rushy Meads SSSI at Kidlington. There are remnant areas in the meadows east of Kidlington, in a meadow near Pigeon Lock and canalside fields at Yarnton.
- Wet grassland: found at Langford Lane Meadows. At Home Farm Ponds there is a wet grassland/fen mixture at the pond edge.
- Limestone grassland: found in the quarries between Enslow and Shipton-on-Cherwell and at Kirtlington. There is a bank north of Kirtlington Quarry with remnant limestone grassland.
- Eutrophic Standing Water: The main site is the Oxford Canal. There is a rich oxbow lake at Northbrook Marsh and ponds at Home Farm.
- Scrub: A Cherwell BAP priority habitat. The main site is St. Mary's Field Parish Nature Reserve at Kidlington.
- Species: the Canal is a key site for water vole. The area is important for birds including BAP species. Some sites, such as Langford Lane Meadows, support high numbers of overwintering snipe.

Access: There is a local nature reserve at Kirtlington Quarry. There is controlled access at Enslow Marsh sedgebed. The main access feature is the Oxford Canal which runs the whole length of the area. There is an area of planted woodland at Kidlington where access is allowed. There is public access on land next to the canal south of Kidlington. St. Mary's Field Parish Nature Reserve at Kidlington

Archaeology:

Targets: Swamp and reedbed management and restoration. Lowland meadow management and restoration. Management for water vole. Wet grassland management and restoration.

Lower Windrush Valley Conservation Target Area



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Lower Windrush Valley

The gravel pit and riverside meadowland dominated landscape stretching south from the centre of Witney.

Joint Character Area: Thames and Avon Vales

Landscape Type: Riverside Meadowlands and Lowland Village Farmlands to the south east.

Geology: Alluvium and sand and gravel.

Topography: Flat riverside land.

Biodiversity:

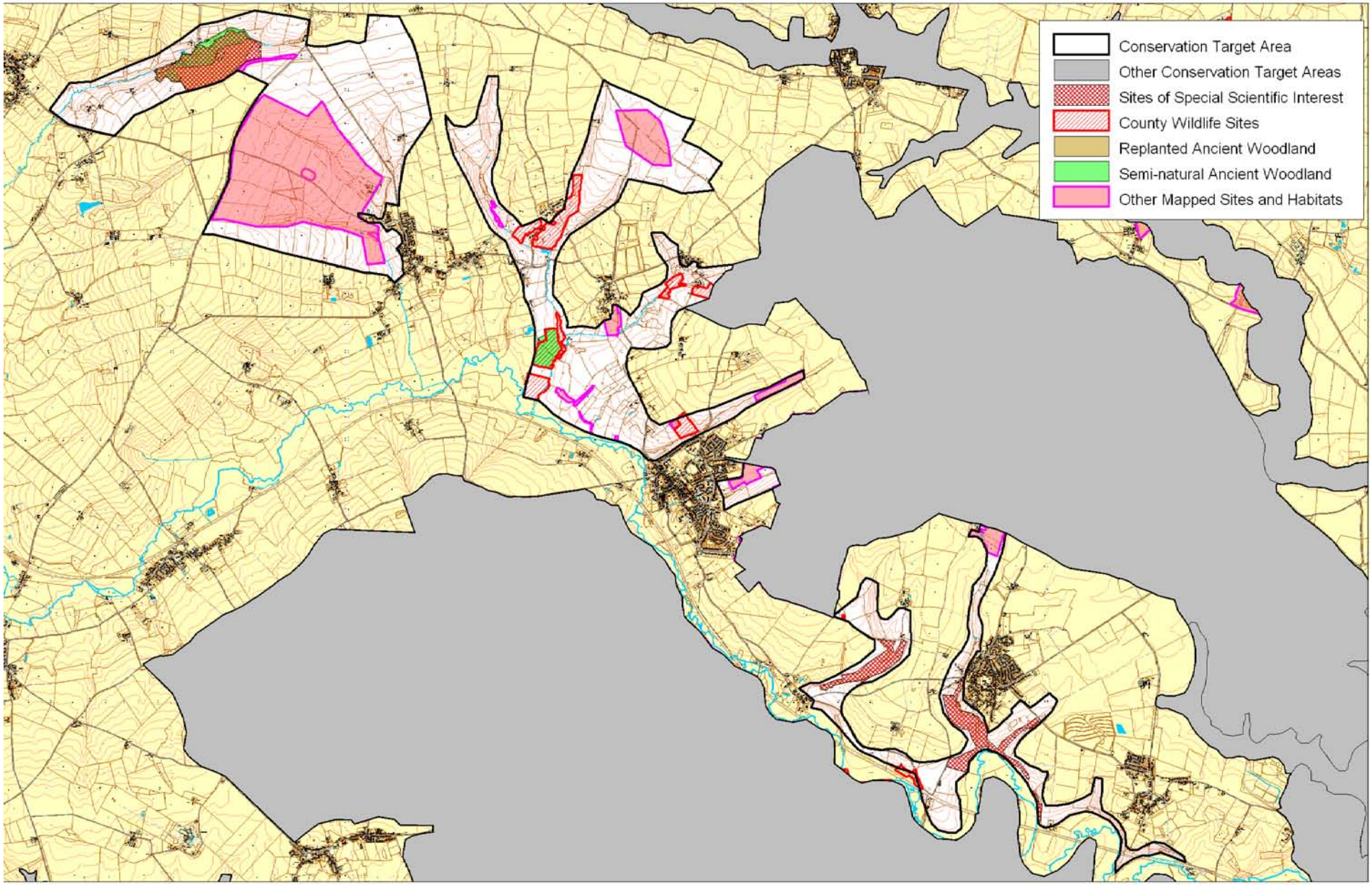
- Eutrophic Standing Water: large numbers of gravel pits managed largely for fishing and water sports. Some have a rich invertebrate fauna and aquatic plant flora. Important for birds, especially overwintering wildfowl. One pit with a nature conservation afteruse lies in the Upper Thames hotspot area but may be best included here.
- Lowland Meadows: A few scattered unimproved and semi-improved sites. These include Ducklington Mead SSSI, Witney Marsh (Grimes Meadow) at the north end of the area, Witney Meadow, which is owned by Witney Town Council, and Dunster Meadow near Standlake. Langleys Lane Meadows SSSI lies just outside the area within the Upper Thames hotspot.
- Reedbeds and swamp: There is a reed bed in an old gravel pit at Standlake and sedge swamp at Witney Marsh. Small areas of marginal swamp vegetation are found at the edge of many of the pits and along the Windrush. New areas will be created in pits that have a nature conservation afteruse.

Access: Langel Common, Witney Lake and Meadow, Lower Windrush path.

Archaeology: Important sites include Devil's Quoits

Targets: Management of water filled gravel pits, management and restoration of lowland meadows, management of swamp and reedbed and creation of new areas of reedbed.

Northern Evenlode Valleys Conservation Target Area



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North Evenlode Valleys

A group of valleys on the northern side of the Evenlode Valley cutting into the Cotswolds plateau. Extends onto the plateau to the east where there is an extensive grassland recreation program.

Joint Character Area: Cotswolds

Landscape Types: Farmland Slopes and Valley Sides (eastern valleys) with small fringing patches of Farmland Plateau, Settled Ancient Pastures to the east along with Farmland Plateau.

Geology: The eastern sections are largely dry limestone valleys. To the west the valleys are wet with a more varied geology with Lias mudstones, limestones, some gravel and alluvial deposits along the streams. The plateau is oolitic limestone.

Topography: Sections of the south facing Evenlode Valley sides and a number of narrow valleys to the north of the main valley. West of Charlbury the area includes more gently valley sides. West of Chadlington it includes flatter areas of plateau land and the top end of another wider valley.

Biodiversity:

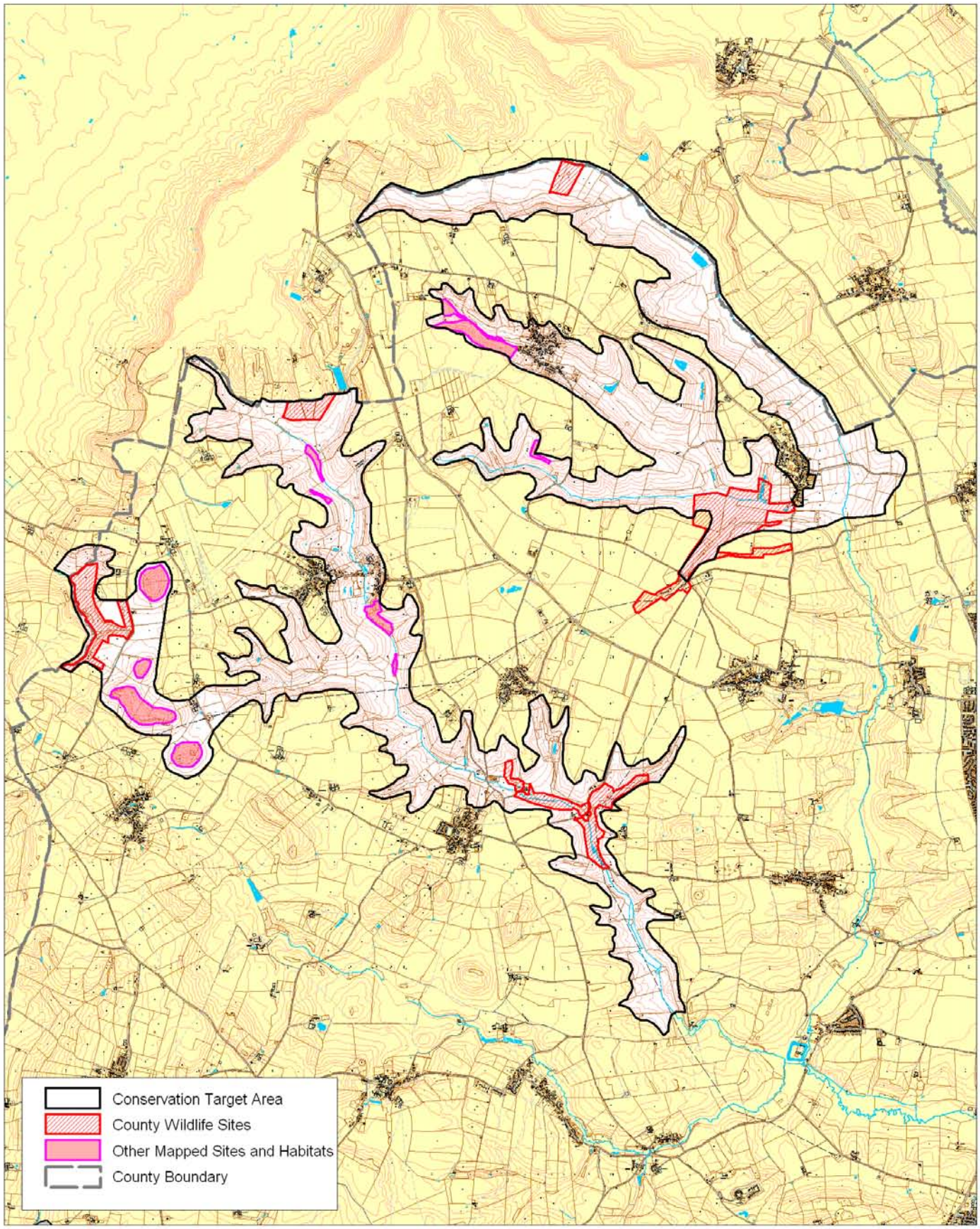
- Limestone grassland. The eastern valleys include SSSI's at Stonesfield and Reed Hill. One valley extends to the relatively flat grasslands at Newbarn Farm at the valley head. The Cotswold Line cuts through the area where limestone grassland is also found on the embankments. To the west, limestone grassland is more restricted but includes sites with meadow clary and road verge reserves. Beyond Chadlington the area extends beyond the valleys onto the plateau where limestone grassland has been recreated.
- Lowland Meadows. Between Charlbury and Chadlington lowland meadow habitat is found in the valleys. There are remnants of this habitat outside the designated sites.
- Wetland springs and flushes. Many springs and flushes supporting fen habitat are found along the eastern brooks especially at Tatson and Dean.
- Woodland: Mainly small areas including Dean Wood CWS. The head of the most eastern valley includes Sarsgrove Wood SSSI. There are other small areas at Stonesfield and Bridgefield Brake.
- Species: Cotswold pennycress present at one site.

Access: Largely restricted to footpaths and bridleways. The Oxfordshire way crosses the area. There is a community woodland at Charlbury and a BBOWT nature reserve.

Archaeology: Includes Knollbury Fort west of Chadlington.

Targets: Limestone grassland management and restoration. Core target areas are in the valleys. On the deeper soils on the adjacent plateau the potential is more limited and the key target area is west of Chadlington to extend existing schemes. Management and restoration of lowland meadow and fen and flushes between Charlbury and Chadlington.

Northern Valleys Conservation Target Area



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Northern Valleys

The valleys of the Sor Brook and North Newington Stream. Extends westwards to include Epwell, Shenlow and Rough Hills and then onto the escapement of the Stour Valley. The section of the Sor Brook, running south to the confluence of the two watercourses, is excluded because in the wider valley and on the more gently slopes no typical habitat for this area is known.

Joint Character Area: Midland Clay Pastures and at Epwell, the Cotswolds.

Landscape Types: Wooded Pasture and Valley Slopes with small areas of Pasture Hills.

Geology: The valleys are fringed by the iron rich Marlstone Rockbed. The upper slopes are a mixture of Lias mudstone and siltstone which the lower slopes are Lias mudstone. Alluvium is found along the valley bottom. The hill area to the west is also Lias mudstone with the crowns topped by sand.

Topography. Quite narrow steep sided valleys with a sometimes quite wide gently sloping area towards the valley bottoms. To the west there is a small area of flatter plateau with three distinct small hills and then a section of the west facing escarpment of the Stour Valley.

Biodiversity:

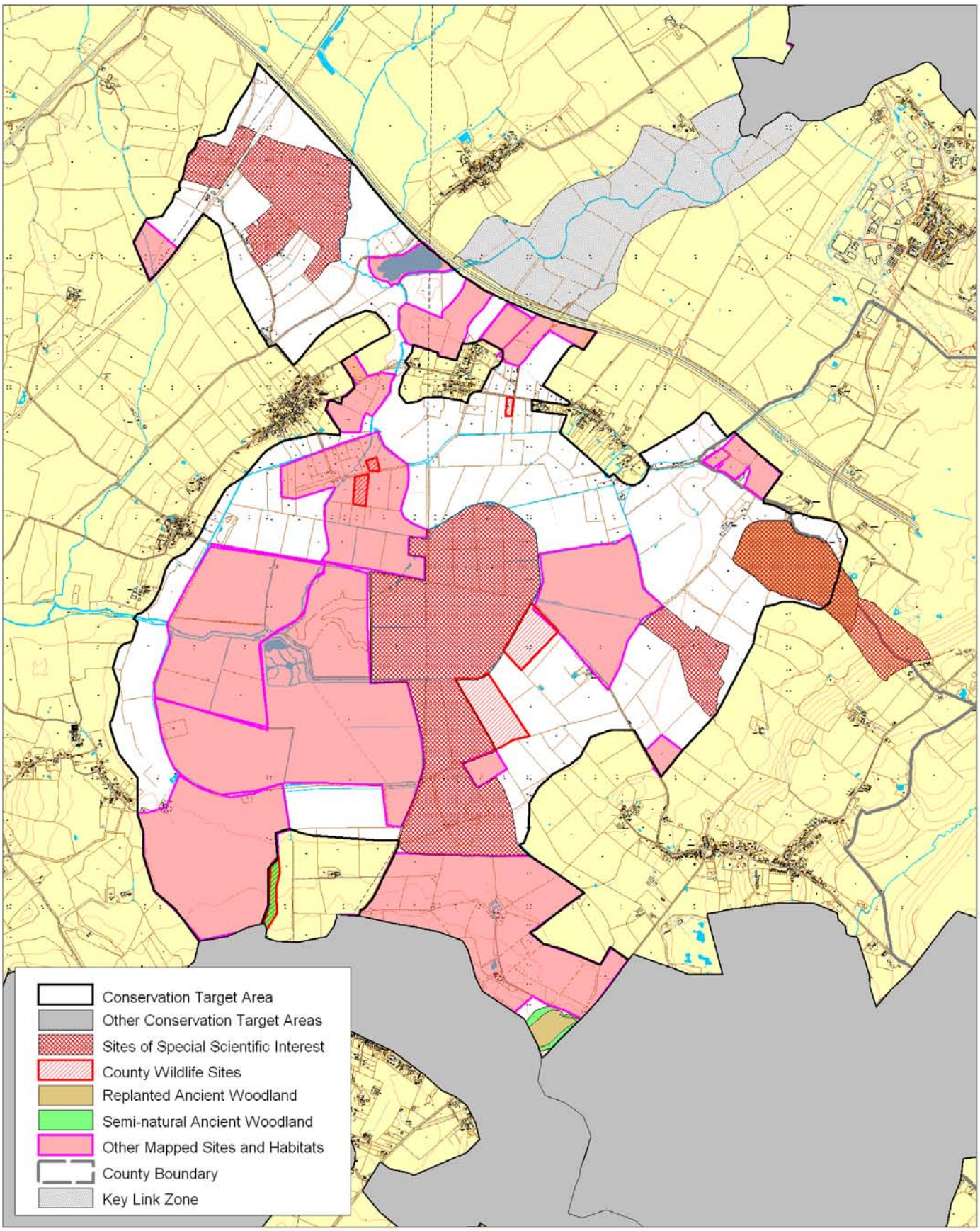
- Lowland Meadow: The more acidic type of this habitat is found on banks and stream side land. This includes Hornton Meadows, Wroxton and Balscote Mills, on the Stour escarpment near Shenlow Hill and a few other small sites.
- Acid grassland: a few scattered sites are known near Hornton and in the County Wildlife Site at Wroxton and Balscote Mills.
- Limestone grassland: has been reported in the area but there is some doubt concerning its identification. There may be some more calcareous lowland meadow habitat and strongly calcareous rough grassland along the disused railway at Horley.
- Note: It is highly likely that further survey would uncover other grassland sites along these valleys. The western hills appear to be very suitable for acid or neutral to acid grassland.
- Fen and swamp. Fen habitat is found in scattered flushes along the valley and in small pockets near the streams. Some of the meadows at Wroxton and Balscote Mills have fen habitat. Swamp habitat is found next to the fishponds at Horley.

Access: restricted to footpaths and bridleways.

Archaeology:

Targets: Grassland survey, management and restoration. Fen and swamp management.

Otmoor Conservation Target Area



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Otmoor and Wendlebury Meads

This area includes the wet low lying Otmoor basin and adjacent areas extending north of Charlton-on-Otmoor and eastwards to Whitecross Green Wood.

Joint Character Area: Thames and Avon Vales.

Landscape Types: Alluvial Lowland with a small area of Wooded Farmland in the vicinity of Whitecross Green.

Geology: Largely alluvium with some patches of sand and gravel deposits and Oxford clay mudstone to the south-east and in patches in the north.

Topography: Flat low lying land in the Ray Valley.

Biodiversity:

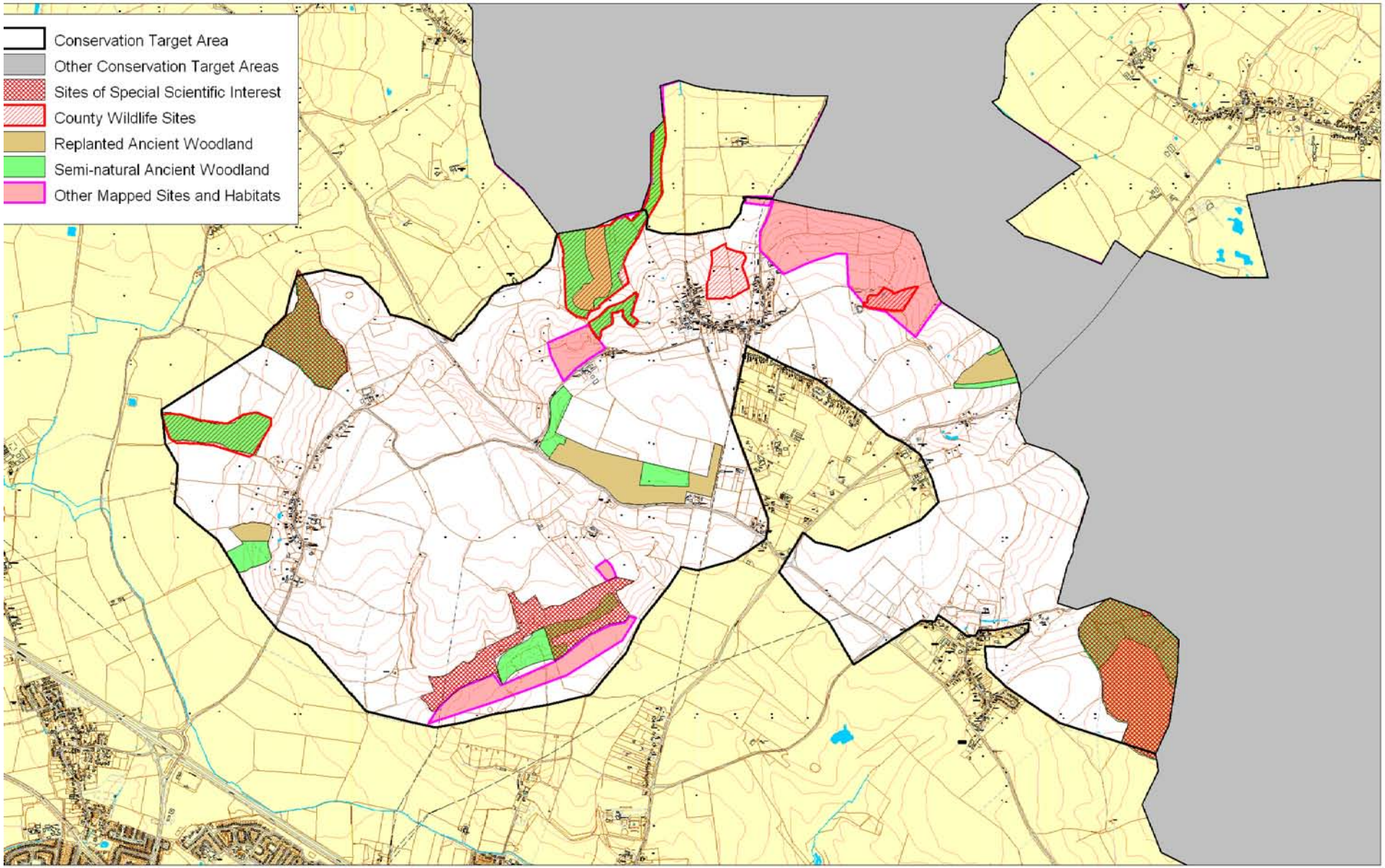
- Floodplain grazing marsh. This dominates the south-west of the area on Otmoor where extensive restoration on the RSPB reserve has greatly increased the original core area within Otmoor SSSI. Within this area there is wet grassland, swamp, rush pasture and lowland meadow habitat.
- Lowland Meadow. Found within Otmoor SSSI, in a number of the small meadows in the northern part of Otmoor, in the north of the area at Wendlebury Meads and Mansmoor Closes SSSI and in the east at Murcott Meadows SSSI (Asham Meads). There are remnants in other fields especially in the northern part of Otmoor. Ridge and furrow is a feature of many of the meadows.
- Reedbed. An extensive area has been created in the RSPB Otmoor reserve.
- Rush pasture: found at Otmoor Rifle Range.
- Wet grassland: besides the areas in Otmoor SSSI and the RSPB reserve some other fields on Otmoor have wet grassland habitat.
- Hedgerows: There are hedgerows with good structure and also species rich examples in this area.
- Eutrophic Standing Water: There are a number of small ponds and The Pill on Otmoor retains standing water through the year. Shallow pools have been created by the RSPB. Some ponds are known to quite species rich.
- Species: The area is particularly important for waders and wildfowl and the RSPB reserve has significantly increased the importance of the area. This is also a good area for turtle dove. Black hairstreak and brown hairstreak butterflies are associated with hedgerows.

Access: Controlled access at RSPB Otmoor Reserve, BBOWT reserves at Asham Meads and Whitecross Green Wood, a number of bridleways and footpaths especially at Otmoor.

Archaeology: A Roman road crosses Otmoor**.**

Targets: Continue to increase the area of grazing marsh on Otmoor and management of land for breeding waders. Lowland meadow management and restoration elsewhere. There may be potential to create further areas of reedbed in the area. Hedgerow management.

Oxford Heights East Conservation Target Area



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Oxford Heights East

The section of the Oxfordshire Heights to the south of Otmoor covering the escarpment from Elsfield to Stanton St John and the land between.

Joint Character Area: Midvale Ridge

Landscape Types: Wooded Estatelands and Wooded Farmland

Geology: The escapement has narrow bands of mudstone and some sandstone. Beyond the escapement there are areas of sandstone and limestone. Alluvium, head (clay, silt and sand) and peat are found along the lines of streams flowing down the escapement.

Topography: On the west, north and east sides the escarpments slopes, quite steeply in places, to the flat valley land associated with Otmoor, the Holton Brook and the River Cherwell. To the south-west a small valley cuts into the area. Beyond the escarpment the land is much flatter.

Biodiversity:

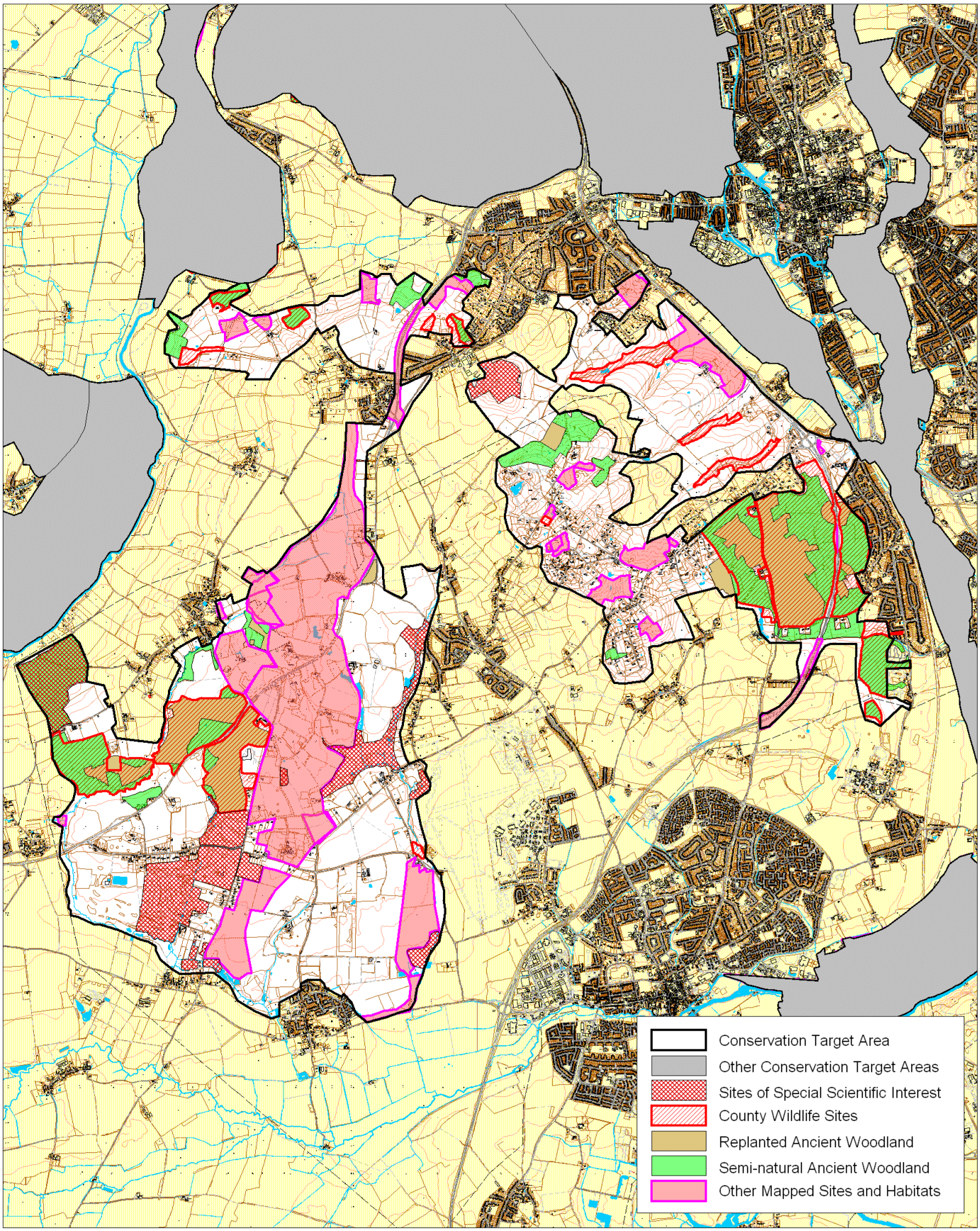
- Woodland: There are numerous areas of ancient woodland on the escarpment. These include Woodeaton Wood SSSI as well as Noke Wood, Cookes Copse and Long Wood, which are County Wildlife Sites. Woodland is also found at Sydlings Copse and College Pond SSSI along the valley to the south west. Stow Wood is at the head of this valley, and lies largely on the plateau.
- Fens and flushes: Fen is found along the south western valley in Sydlings Copse and College Pond. There are many springs and flushes along the escapement, especially associated with the junction between the mudstone and sandstone. These are extensive in Cookes Copse and can be seen in such sites as the County Wildlife Sites of Beckley Pasture and Park Farm.
- Lowland Meadows: Found in a few sites on the mudstone near Beckley and the alluvium at Park Farm.
- Limestone grassland: found in small patches largely where the limestone occurs on or near the escarpment and in the south-west valley. It has also been found at the old Beckley Airfield site in the past.
- Acid grassland: Remnants of this habitat are found on the sandstone in the south-west valley though bracken dominates.
- Species: Arable wildflowers – this area may be important for arable wildflowers – clarification is being sought.

Access: Largely restricted to bridleways and footpaths. The Oxfordshire Way crosses the area at Beckley. Sydlings Copse and College Pond is a BBOWT nature reserve.

Archaeology: Beckley Palace, Dark Dale at Beckley, fishponds east of Beckley. A roman road crosses the area.

Targets: Woodland management, fen and flush management, restoration of lowland meadow, management of cereal field margins for arable wildflowers. There may be potential for restoration of acid and limestone grassland.

Oxford Heights West Conservation Target Area



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Oxford Heights West

This complex area encompasses the Oxford Heights from west of the city to Appleton in the west and Frilford in the south west. Includes Cumnor Hill, Boars Hill and the woodlands to the south.

Joint Character Area: Midvale Ridge

Landscape Types: Wooded Estateland (western slopes, south east woodlands and running from Cumnor to Frilford). Wooded Farmland at Boars Hill and Hurst Hill. Rolling Farmland west of Lashford Lane.

Geology: Boars Hill is topped with glacial sand and gravel and sandstone. The Ampthill and Kimmeridge Clay band is found in the wooded area to the south where there are also further areas of glacial sand and gravel. On the western slopes there is a band of limestone and Oxford Clay mudstone towards the base. The northern escarpment is similar but also includes a band of sandstone. The area running from Cumnor to Frilford is sandstone with some limestone with alluvium along the stream valleys. Calcareous Grit, which is a mixture siltstone, sandstone and mudstone, is found at Appleton and in bands along the western streams.

Topography: The prominent hills west of Oxfordshire, sections of the Oxford Heights escapement to the north and near Appleton and the land running gently down to the Ock Valley to the south. This are is intersected by a number of streams including the Sandford Brook and brook flowing from Frilford to Cumnor. Three small valleys cut into the western slopes.

Biodiversity:

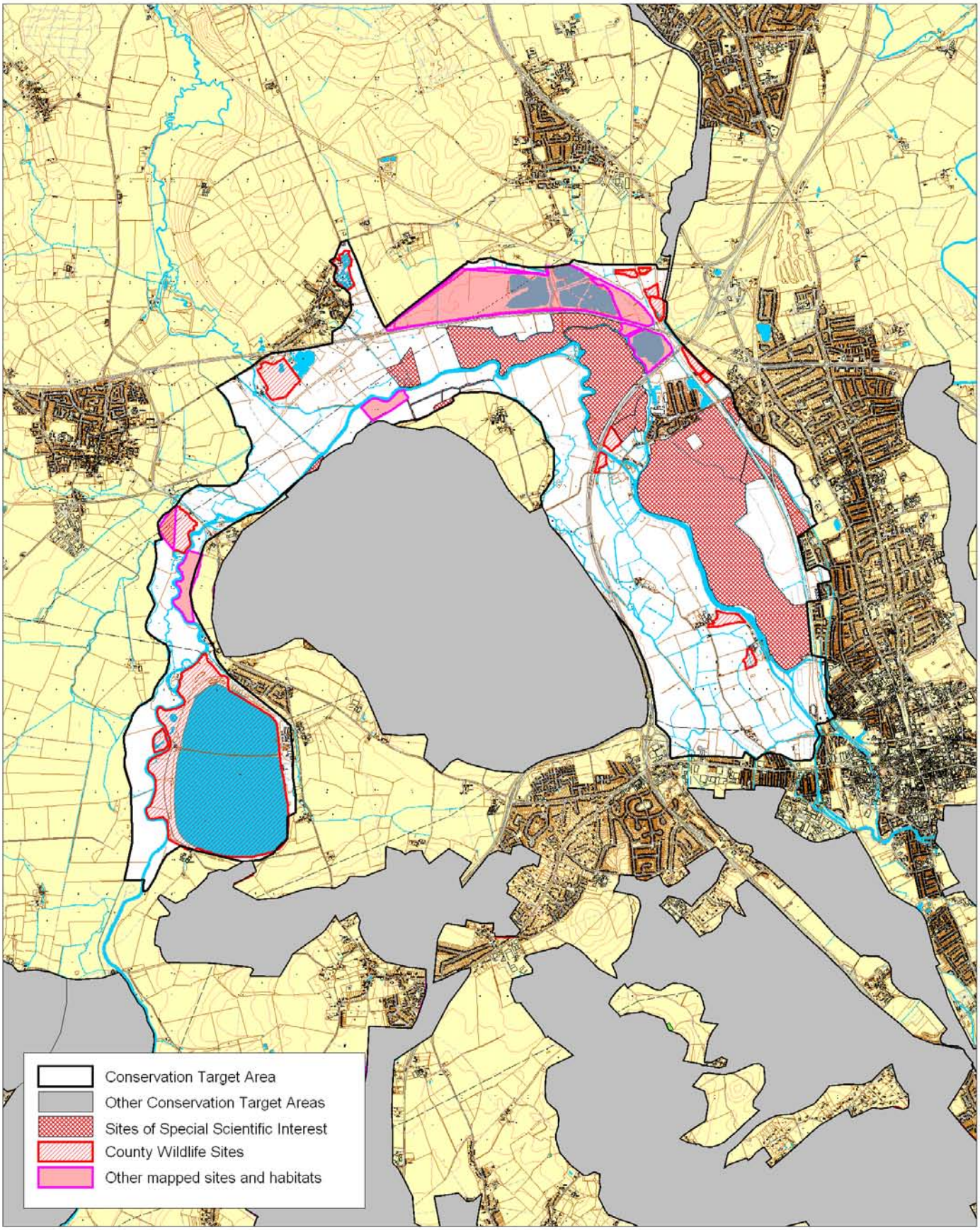
- Fen: this area has the main concentration of fen in Oxfordshire especially along the Sandford Brook. There is reed dominated fen in the valleys on the western slopes and flushes on the northern escarpment and in woodland near Appleton. Hurst Hill has remnant Spagnum bog.
- Wet Woodland: found is association with the fens and in woodland near Appleton.
- Lowland Mixed Deciduous Woodland: Found in the woodlands to the south-east, some of the woodland along the Sandford Brook at Cothill, in woodland on the northern escarpment, Hurst Hill, in the woodlands at Appleton and in remnants in Tubney Wood.
- Acid grassland: there are patches of acid grassland in some sites on Boars Hill. It is also found at Frilford Heath golf course and in restored land at Sheepstead Farm. It is also found on rides in Tubney Wood and there is remnant habitat at Besselsleigh Common Wood.
- Heathland: some areas have been restored at Sheepstead Farm. Has been known from Frilford Heath in the past. It was also present at Hurst Hill.
- Limestone Grassland: on the northern escarpment and in the small western valleys.
- Lowland Meadow: found on northern escarpment. Remnants are found elsewhere including a meadow at Appleton and some fairly acidic examples are found on Boars Hill.
- Geology: geological SSSIs are found at Dry Sandford Pit, Cumnor, Hitchcopse Pit, Hurst Hill.
- Other species: arable wildflowers are found on sandy soils for example at Tubney Manor Farm.

Access: Besselsleigh Common Wood, BBOWT reserves at Cothill, Oxford City Council land and a nature park on the western slopes. There are some accessible areas on Boars Hill.

Archaeology:

Targets: Heathland and acid grassland restoration on the sandstone. Fen management. Woodland management. Lowland meadow management and restoration mainly on the northern escarpment. Management for arable wildflowers.

Oxford Meadows and Farmoor Conservation Target Area



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Oxford Meadows and Farmoor

This area includes the Thames Valley to the west of Oxford as far as Farmoor. It includes the Oxford Meadows Special Area of Conservation, Farmoor Reservoir and gravel workings between Yarnton and Cassington.

Joint Character Area: Thames and Avon Vales

Landscape Type: Riverside Meadows

Geology: Alluvium

Topography: Flat riverside land

Biodiversity:

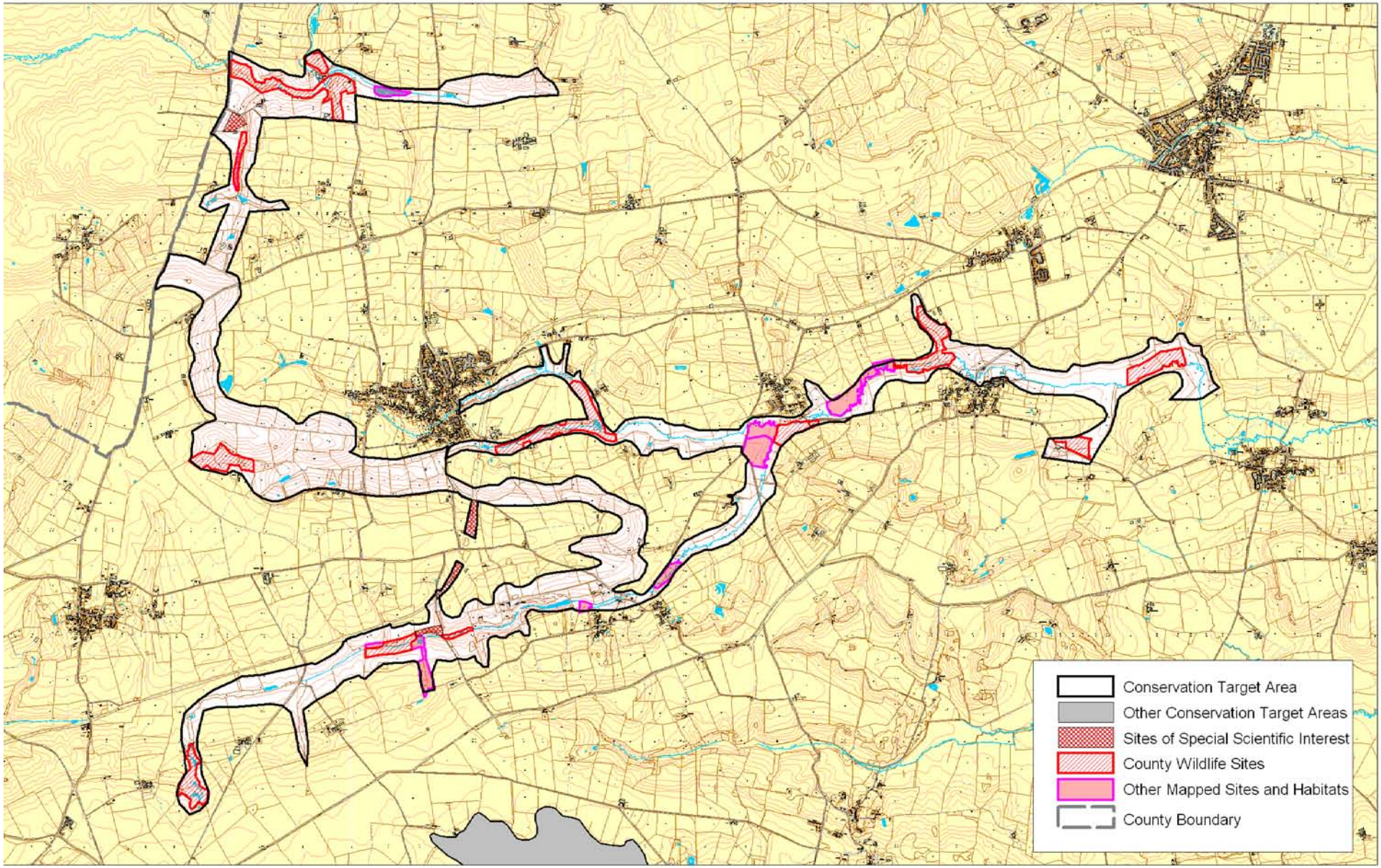
- Lowland Meadows: Extensive areas of nationally important lowland meadow habitat are found at Pixey and Yarnton Meads, Port Meadow, Wolvercote Meadows and Cassington Meadows. There are also a number of smaller meadow sites at Wolvercote, Yarnton and near Eynsham. There are also remnant areas of wet grassland
- Eutrophic Standing Water: Farmoor Reservoir is the largest area of standing water in Oxfordshire. Some of the new gravel pits near Yarnton also attract good number of wildfowl. Wolvercote gravel pit is also in this area. This habitat is also found at Pinkhill at Farmoor, Dukes Lock Pond and old gravel workings near Cassington.
- Fen/swamp: Swamp habitat is found in a canalside meadow at Wolvercote, which supports good numbers of overwintering snipe, and in small railside pits at Yarnton. Rich areas are found in ditches at Wytham.
- Reedbeds There is a reedbed at Dukes Lock Pond and in an old gravel pit at Cassington. Reedbeds have been created next to the Thames at Farmoor Reservoir.
- Wet Woodland: Small areas largely associated with old pits

Access: Largely restricted to footpaths and bridleways including the Thames Path. There is controlled access at Farmoor.

Archaeology:

Targets: Lowland meadow management and restoration. Management of gravel pit afteruse, management of existing reedbed, fen and swamp. There may be potential to create some new areas of reedbed. Management of wet grassland for breeding waders.

Swere Valley and Upper Stour Conservation Target Area



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Swere Valley and Upper Stour

The Swere Valley from Barford St Michael to its source south east of Great Rollright. The area includes tributary valleys extending west of Hook Norton and then north across the watershed to the valleys and quarries at Sibford Ferris where the source of he River Stour is found.

Joint Character Area: Cotswolds

Landscape Types: Farmland Slopes and Valley Sides to the west and River Meadowlands to the east.

Geology: The valley has a complex geology with siltstones and mudstone, the iron rich limestone, known as Marlstone Rockbed, oolitic and Chipping Norton limestones. These latter two limestones are particularly prominent at South Newington, along the main Swere Valley south west of Hook Norton and in the area of the Upper Stour. East of Hook Norton, alluvium is found alongside the River.

Topography: To the east there is a wide valley with gently sloping sides. Further west the valley and that of the tributaries and the Stour are narrower with steeper banks.

Biodiversity:

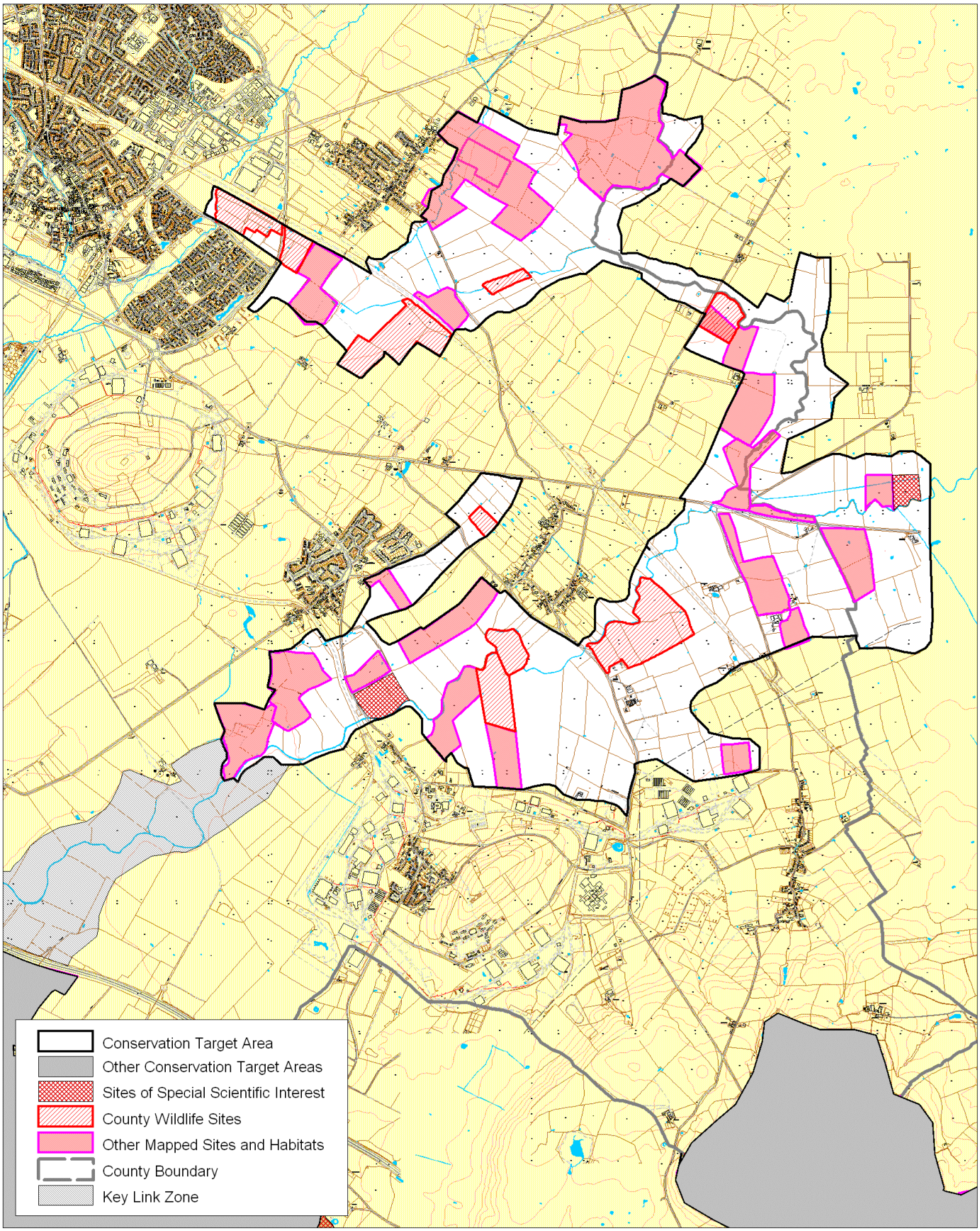
- Lowland meadow: This is largely found on the banks on the mudstone often quite acidic in nature. In places though it is quite calcareous in nature. On some sites small flushes are found in association with it. The main sites are between South Newington and Hook Norton, Another site is found at Berryfields Farm to the west of Hook Norton. Remnants are found in some riverside meadows including a field near Barford.
- Limestone grassland: The main concentration is found west of Swerford. These include Swere Bank SSSI and the railway cutting nature reserve as well as a road verge near Walk Farm. Further area are found in the Upper Stour area on banks and in disused quarries.
- Swamp and fen. Swamp habitat is found in a number of sites along the base of the valley including in the old river channel at Wiggington, at South Newington, Cradle Farm, in old pond at Priory Mill and near Swerford. Rush and sedge dominated flushes are found on banks amongst lowland meadow habitat.
- Wet Woodland:
- Lowland Mixed Deciduous Woodland: Restricted to a few small sites at South Newington, west of Swerford and at Priory Mill. Scrubby secondary woodland is also found in the old quarries in the area of the Upper Stour.
- Other habitat: Eutrophic standing water at Lambs Pool and parkland at Swerford Park.
- Species: The Swere west of Swerford has a good population of White-clawed crayfish.

Access: Hook Norton Railway Cutting and Lambs Pool are nature reserves.

Archaeology:

Targets: Lowland meadow and wetland management and restoration in the flat riverside land. On the banks there is potential for extending the area of limestone and lowland meadow habitat depending on the geology. The Stour Area has been extended east to include the steeper limestone banks in the area.

Ray Conservation Target Area



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Ray

The alluvial floodplain of the River Ray extending along a number of small tributary streams and including some areas of land between these streams. This area extends into Buckinghamshire. The area extends onto the clay to included known areas of wet grassland and the main areas of ridge and furrow.

Joint Character Area: Thames and Avon Vales

Landscape Types: Alluvial Lowland with some areas of Clay Vale.

Geology: Mainly alluvium along the Ray. Alluvium is also present in narrow bands along the small streams and there are Oxford Clay mudstones away from the streams and river.

Topography. Flat riverside land.

Biodiversity:

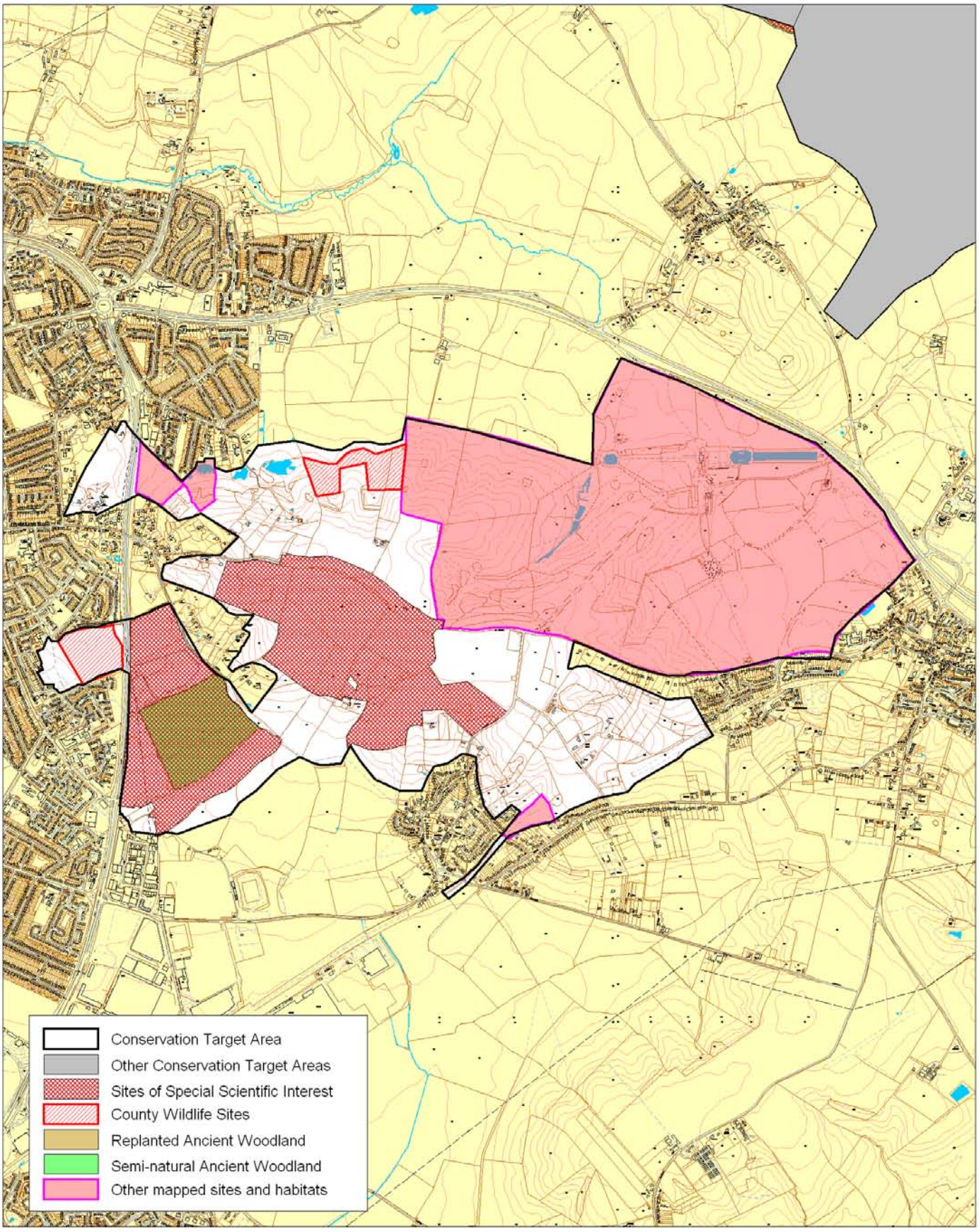
- Lowland Meadow. The key habitat in this area. It is found in a number of SSSI's and County Wildlife Sites mainly at least partly on the alluvium. North west of Blackthorn Hill there is a larger group of meadows which are largely on the Oxford Clay. Remnants of this habitat are found elsewhere especially between Bicester and Blackthorn Hill and in some meadows in Buckinghamshire.
- Wet grassland. Found in meadows along with lowland meadow habitat with remnants elsewhere.
- Hedgerows. Some rich and well structured hedgerows with brown and black hairstreak.
- Other Species: true fox sedge is found in a number of sites in the area.

Access: Largely restricted to bridleways and footpaths. There are two BBOWT nature Reserves – Dorothy Bolton Reserve and Long Herdon Meadows. Access routes have been created adjacent to BBOWT reserves.

Archaeology: Extensive ridge and furrow.

Targets: Lowland meadow management and restoration. Many fields were entered into the ESA scheme. There is good potential for the restoration of lowland meadow and wet grassland habitat. This potential may extend onto the Oxford Clay mudstone. There may be potential to create some swamp and reedbed habitat.

Shotover Conservation Target Area



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Shotover

This area is Shotover Hill and includes the Country Park and Shotover House Park. It extends of the Hill to include Country Park land near the Oxford eastern bypass and includes Open Magdalen and Stansfeld Field Study Centre on the west of the Bypass

Joint Character Area: Midvale Ridge

Landscape Types: Wooded Estatelands, a small area of Lowland Village Farmland and Rolling Farmland off the hill to the west.

Geology: A sandstone capped hill with bands of Kimmeridge Clay mudstone, sandstone and siltstone at the edge. There are also some areas of Head deposits which are a mixture of clay, sand, silt and gravel. At the bottom of the Hill, to the north-east and west, there are areas of Amptill Clay, thin bands of alluvium and a small area of Wheatley Limestone in the east.

Topography: A hill to the east of Oxford and including flat land beyond the hill slopes to the west.

Biodiversity:

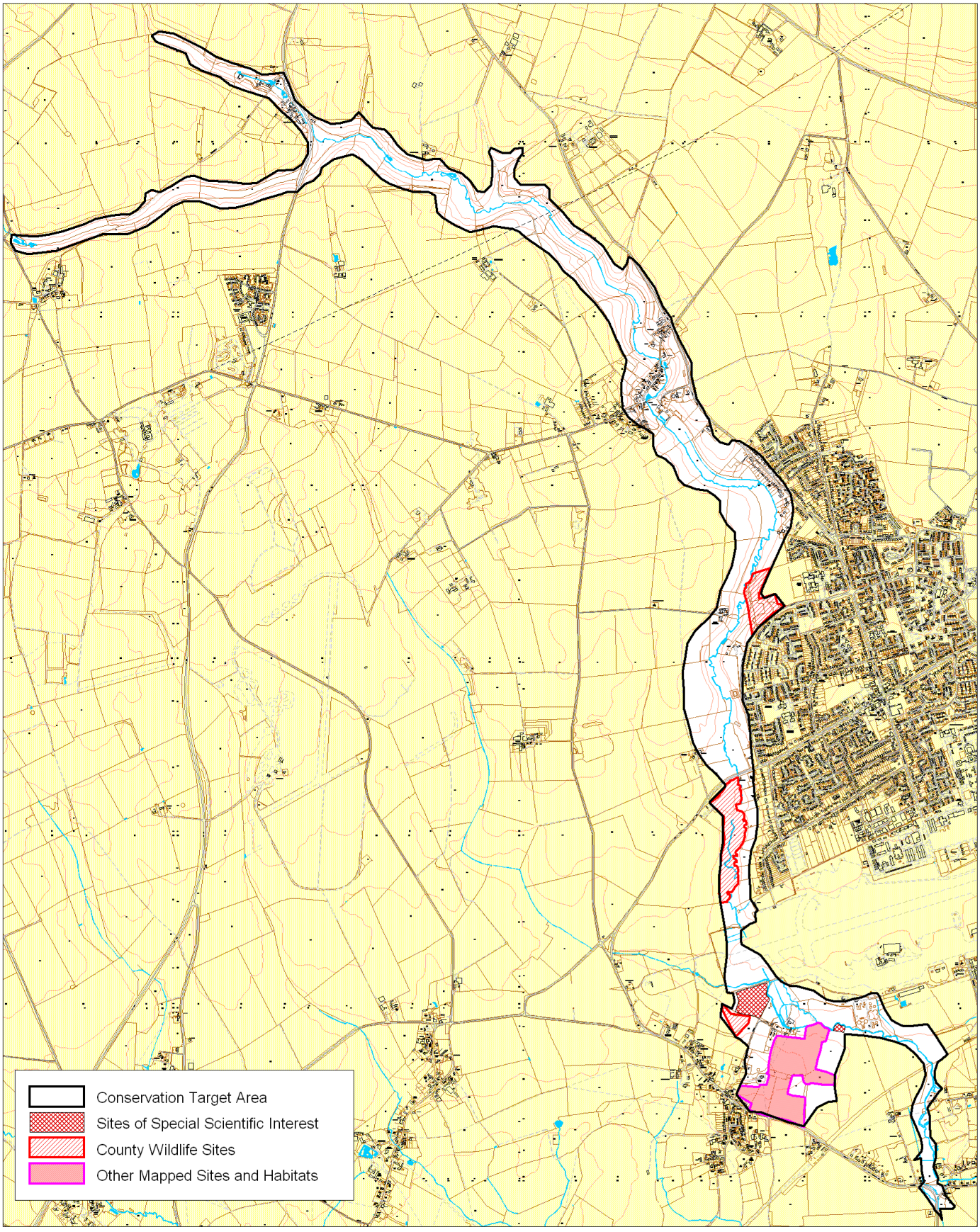
- Heathland: There are areas of restored heathland in the Country Park
- Lowland Mixed Deciduous Woodland: Extensive areas in Shotover Park and in the woodland to the west. The scrubby edges of Brasnose Wood are important fir nightingales.
- Lowland Meadow: Some patches on the hill such as at the County Wildlife Site on the northern slopes. Also found off the Hill to the west in the SSSI.
- Acid Grassland: Some areas in the Country Park and the County Wildlife Site on the northern slopes.
- Fen: Found in flushes on Shotover Hill
- Parkland: Shotover House has important parkland/veteran tree habitat.
- Eutrophic Standing Water: Include the BBOWT Henry Stephen/C. S. Lewis reserve and a lake at Shotover Park.

Access: Extensive open access through the Country Park. The BBOWT Henry Stephen/C. S. Lewis reserve is also in this area.

Archaeology:

Targets: Heathland and acid grassland management and restoration. Lowland meadow management and restoration, parkland/veteran tree management and restoration, woodland management. Management and restoration of fen habitat in flushes.

South Cotswold Valleys Conservation Target Area



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South Cotswold Valleys

The Shill Brook Valley from Black Bourton in the south to Holwell and Signet in the north.

Joint Character Area: Cotswolds (north), Thames and Avon Vales (south)

Landscape Type: Wooded Pasture Valleys and Slopes (north), Lowland Village Farmland (south).

Geology: From Carterton and northward the valley cuts through limestones and there is alluvium along the Shill Brook. To the south the alluvium widens out and there is Forest Marble mudstone.

Topography: A narrow valley to the north with some steep sides that widens out west of Carterton through to Black Bourton with gently sloping side.

Biodiversity:

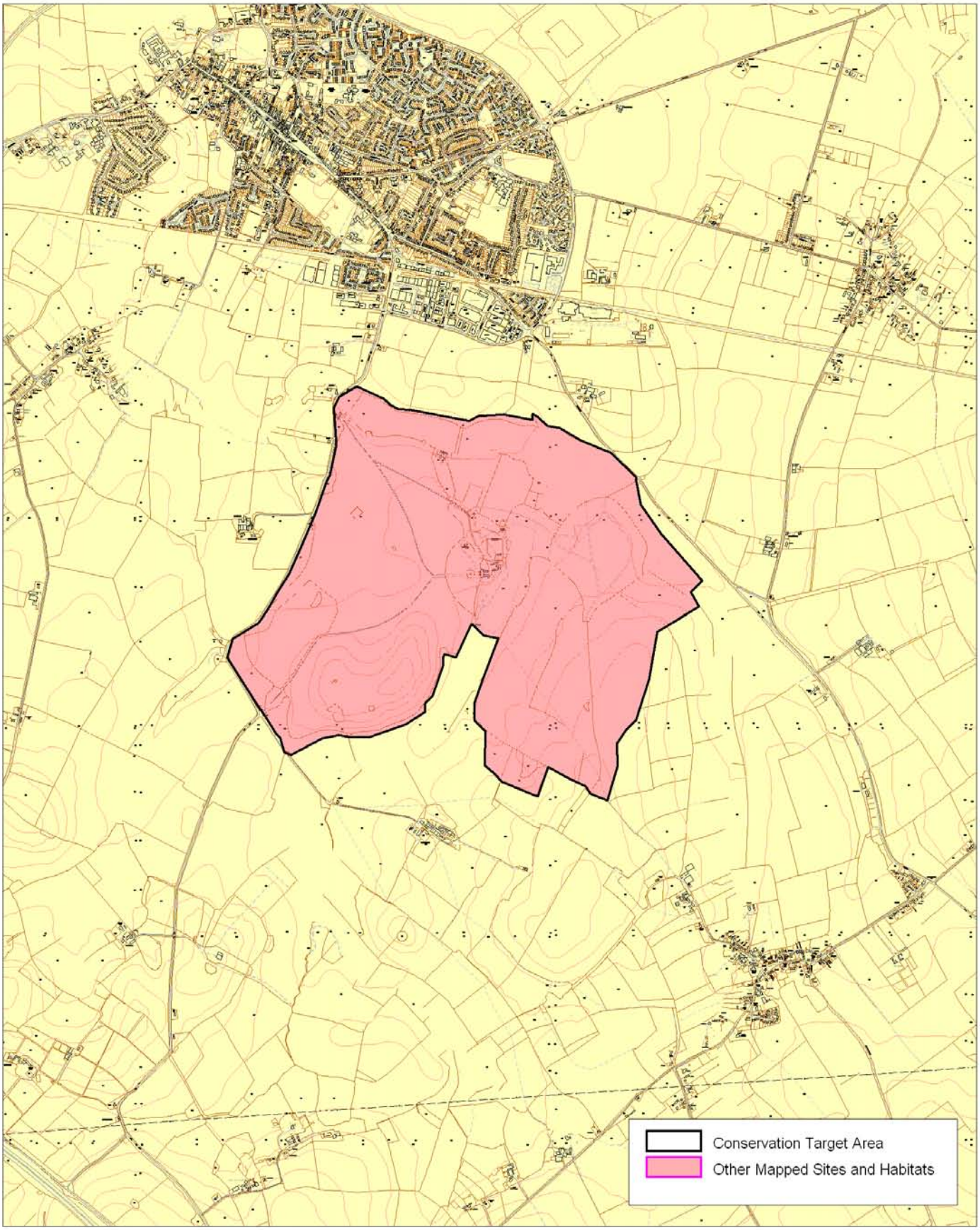
- Lowland Meadow: Alvescot Meadows SSSI is the richest site. There are other meadows at Alvescot with remnants of this habitat.
- Fen: Fen meadow habitat is found in Willow Meadows at Carterton while Alvescot Meadows has elements of fen habitat.
- Limestone grassland: There is a bank of limestone grassland at Carterton and some remnant habitat further north at Mount Zion Bottom. There is also a road verge nature reserve at Signet.

Access: Willow Meadows and other land along the valley at Carterton have public access. Otherwise access is restricted to footpaths.

Archaeology:

Targets: Limestone grassland restoration and management from Carterton northwards. Lowland Meadow management and restoration south of Carterton. Fen management at Willow Meadows.

Thame Park Conservation Target Area



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Thame Park

A fairly large but rather isolated area that encompasses Thame Park.

Joint Character Area: Thames and Avon Vales

Landscape type: Rolling Clayland.

Geology: Gault Clay with Head (Clay, Silt Sand and Gravel) and alluvium along the Cuttle Brook and other streams.

Topography: Flat to the north along the Cuttle Brook. The south western part is a low hill and the east is on the gentle slopes of another low hill.

Biodiversity:

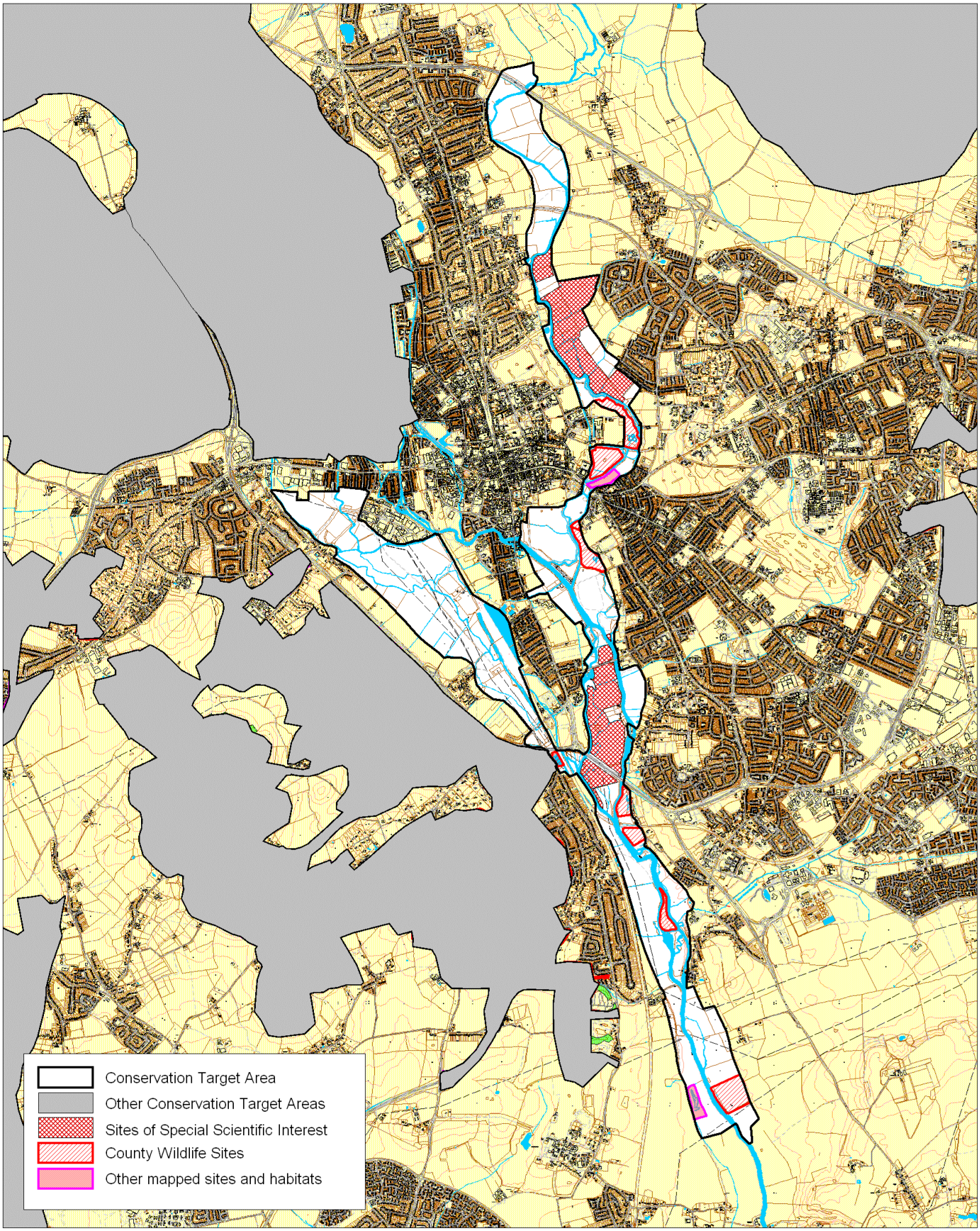
- Parkland: Large area of sheep grazed parkland with many veteran oak trees.
- Other habitat: there is one large area of woodland and a lake within the Park.

Access: there is one footpath through the site

Archaeology: Remains of a Cistercian Abbey

Target: Parkland/veteran tree management and restoration.

Thames and Cherwell at Oxford Conservation Target Area



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Thames and Cherwell Meadows at Oxford

Riverside land along the Thames and Cherwell at Oxford. Extends from Kennington in the south to Botley in the West and as far the A40 at Marston in the east.

Joint Character Area: Thames and Avon Vales, Midvale Ridge – this area is characteristic of the former.

Landscape Types: River Meadowlands though two pits are classed as Lowland Village Farmland.

Geology: Alluvium

Topography: Flat riverside land

Biodiversity:

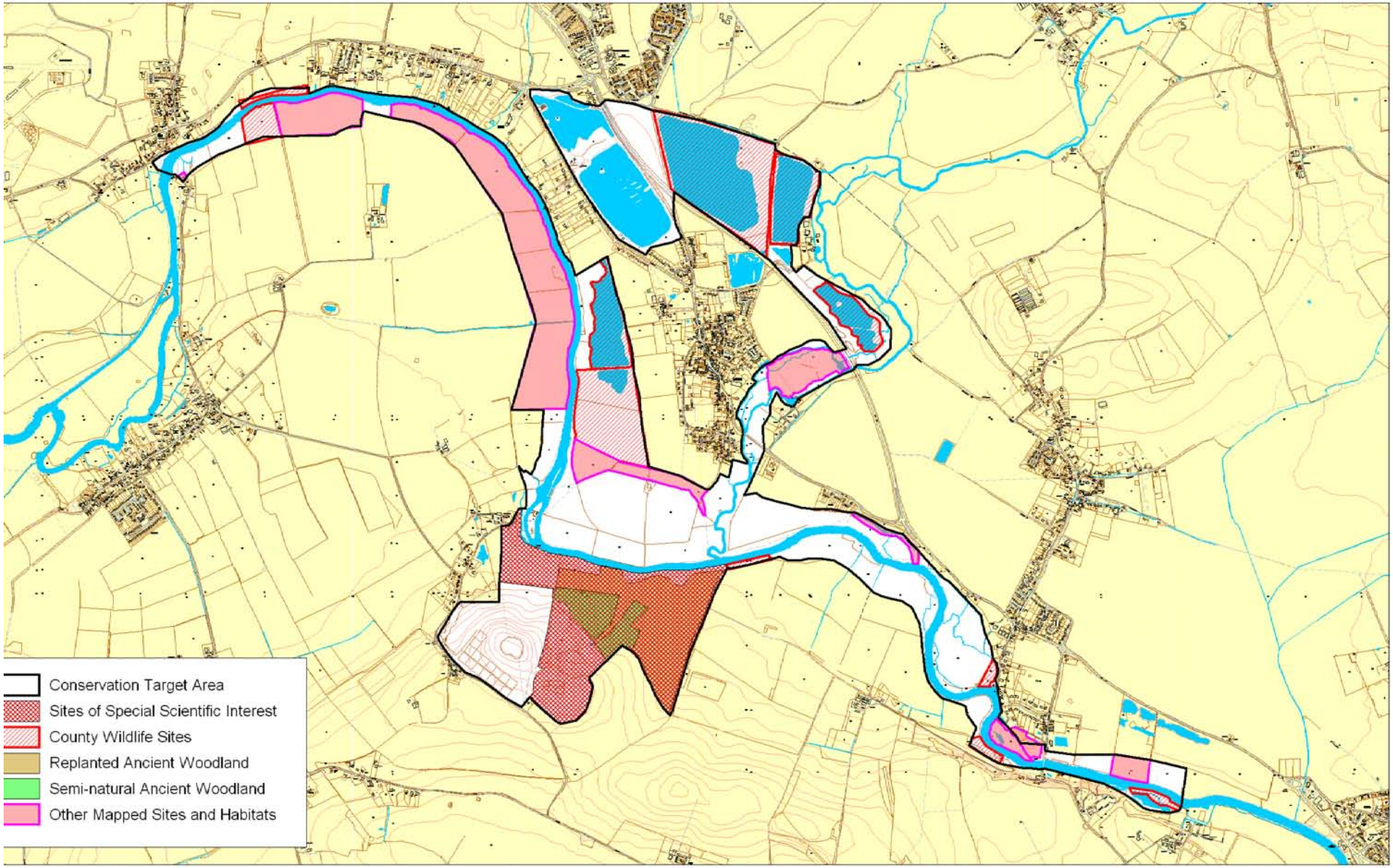
- Lowland Meadows: This is the main habitat in the area. There are species rich meadows at Iffley and Marston which are SSSIs. Magdalen Meadow, St Hilda's College Meadow and Lower Farm Meadow are CWS.
- Wet grassland/fen/swamp/reedbed. Parts of Iffley Meadows are wet grassland and there is also fen and swamp habitat here. A number of the meadows along the Cherwell and Thames have wet grassland habitat and there are patches of swamp. Long Meadow supports swamp habitat and there is a reed bed at Fiddler's Island.

Access: Riverside paths including the Thames Path. There is a nature reserve at Iffley and a nature park at Botley.

Archaeology:

Targets: Management and restoration of lowland meadow habitat. Management of wet grassland, fen, swamp and reedbed. Creation of new areas of reedbed.

Thames Clifton to Shillingford Conservation Target Area



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Thames Clifton to Shillingford

The Thames floodplain between Clifton and Shillingford but including the gravel pits at Dorchester and Little Wittenham Nature Reserve.

Joint Character Area: Thames and Avon Vales

Landscape Types: River Meadowlands, Terrace Farmland (Dorchester Gravel Pits), Rolling Farmland and Farmland Hills (Little Wittenham Nature Reserve).

Geology: Alluvium and sand and gravel in river valley. Mudstone, siltstone and sandstone at Little Wittenham Nature Reserve with chalk on the hill top.

Topography: Largely flat riverside land but including the mainly north facing slopes and hill tops of the northernmost of the Sinodun Hills at Little Wittenham.

Biodiversity:

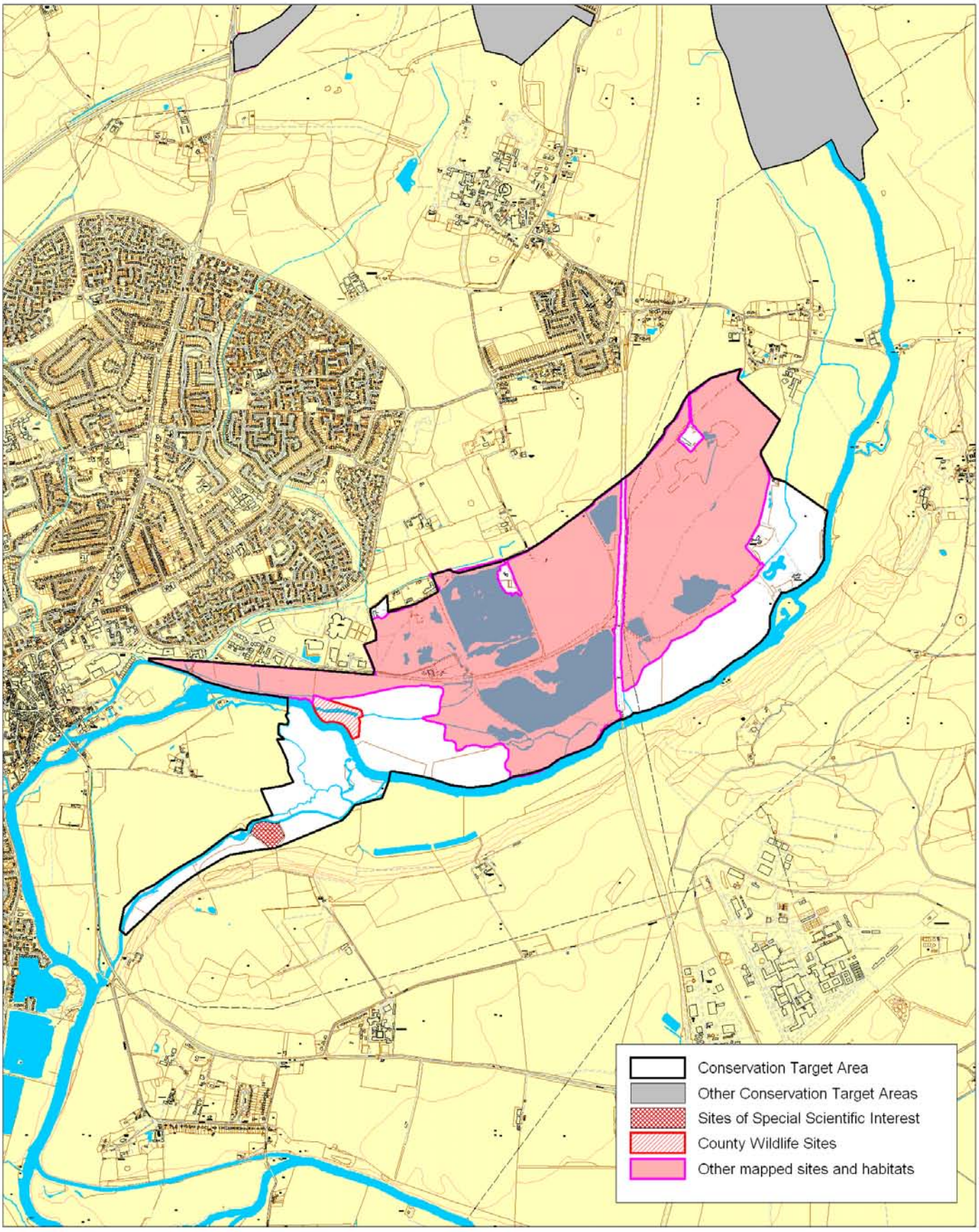
- Lowland Meadow: Two County Wildlife Sites near Clifton Hampden. Lowland Meadow habitat is also present in Church Meadow and on Round Hill at Little Wittenham. Some remnants in other fields.
- Eutrophic Standing water: Four of the gravel pits at Dorchester are County Wildlife Sites and are important for wintering wildfowl. Little Wittenham has a series of ponds that are important breeding sites for great crested newt.
- Wet woodland. Small area next to the Thames at Burcot, Little Wittenham and Shillingford that support populations of Lodden lily.
- Other Woodland at Little Wittenham, some limestone grassland here and on Dyke Hills.

Access: Little Wittenham Nature Reserve and the Thames Path.

Archaeology: Dyke Hills at Dorchester, Castle Hill at Little Wittenham.

Targets: Restoration and management of lowland meadow along the Thames, management of wet woodland, maintaining the value of Dorchester Pits.

Thames Radley to Abingdon Conservation Target Area



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Thames Radley to Abingdon

The riverside land near Radley and Abingdon.

Joint Character Areas: Thames and Avon Vales, Midvale Ridge – the whole area is more typical of the former.

Landscape Type: River Meadowlands and Alluvial Lowlands.

Geology: Alluvium and sand and gravel.

Topography: flat riverside land.

Biodiversity:

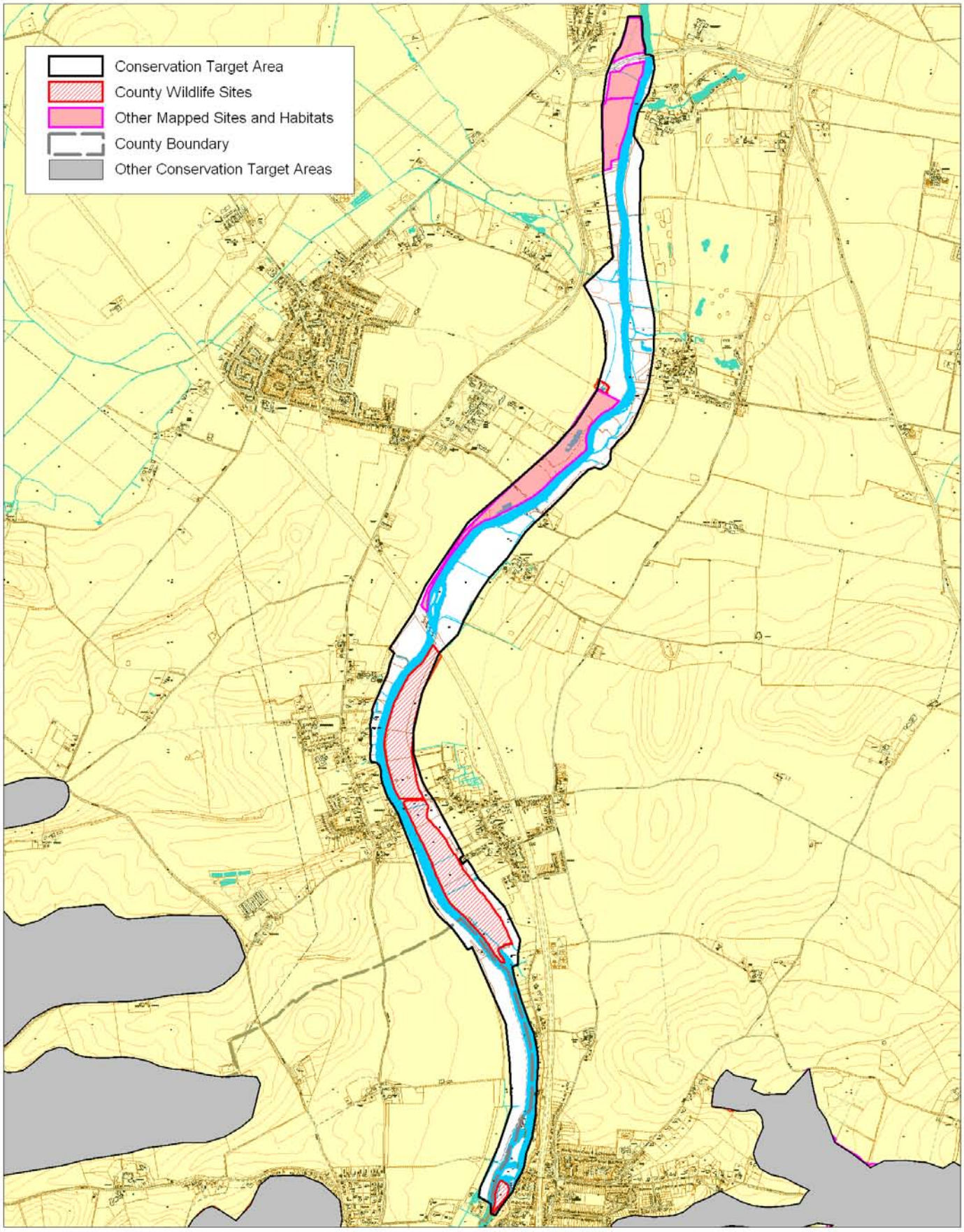
- Eutrophic Standing Water: gravel pits at Radley include at least one site that is rich in aquatic plants. Some land has permission for further gravel extraction with nature conservation afteruse.
- Wet Woodland: small areas next to the river include Thames Cut County Wildlife Site. There is also wet woodland at Culham Brake SSSI.
- Fen: Culham Brake which is important for its population of Lodden Lily.
- Other habitat: Infilled gravel pits at Radley have developing grassland and woodland habitats and have great potential.
- Other species: this is an important area for nesting lapwing.

Access: Barton Fields is managed for public access and nature conservation.

Archaeology: work at Thrupp has uncovered large numbers of Bronze Age finds.

Targets: Management of standing water sites, management of wet woodland, management and restoration of infilled pits. Woodland planting should be avoided.

Thames Wallingford to Goring Conservation Target Area



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Thames Wallingford to Goring

The floodplain of the Thames between Wallingford and Goring.

Joint Character Area: Thames and Avon Vales

Landscape type: River Meadowlands

Geology: Alluvium

Topography: Flat riverside land.

Biodiversity:

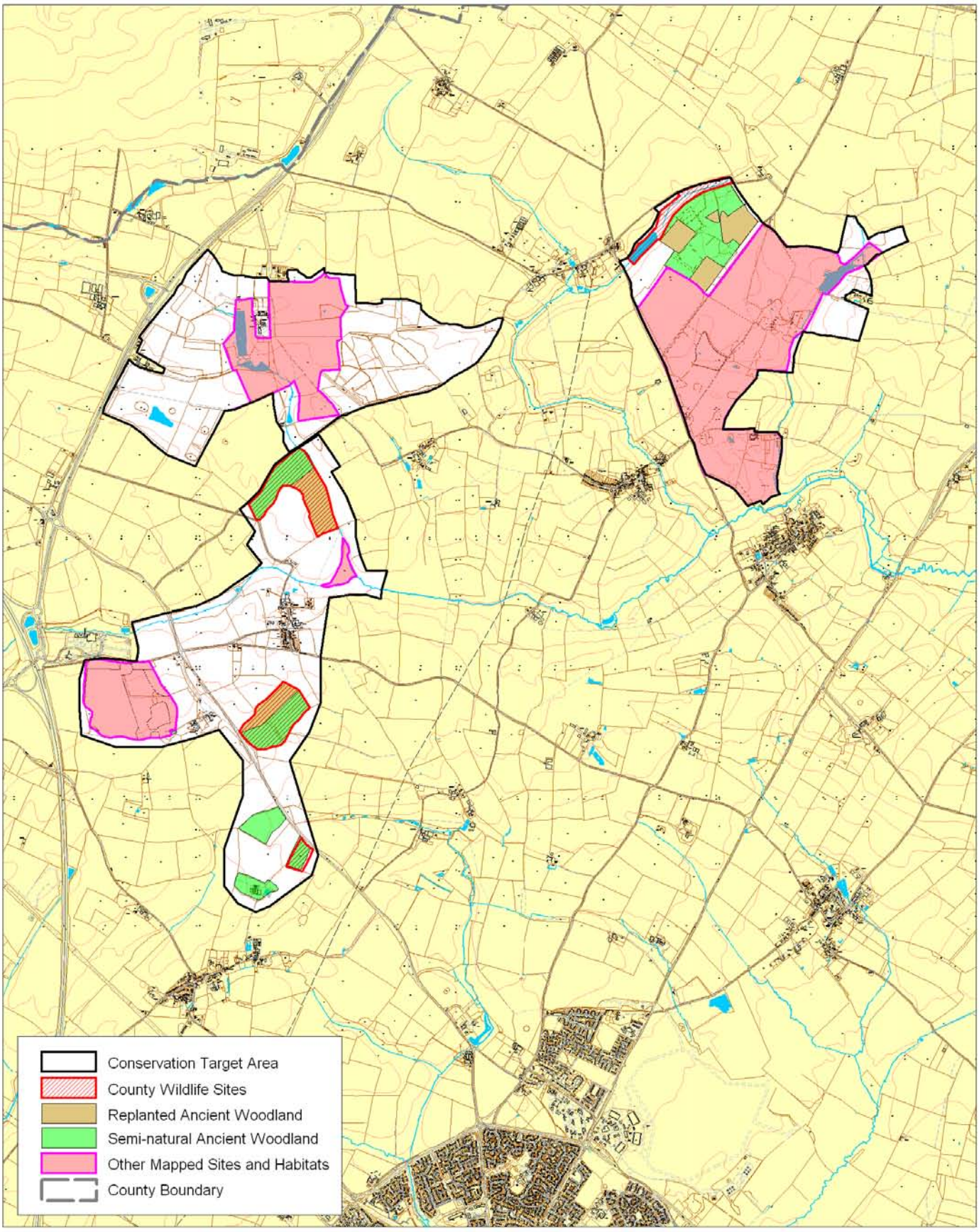
- Fen, swamp and reedbed. South Stoke Marsh. A very important site for birds and invertebrates and the largest area of wetland along the Thames in Oxfordshire. There is also swamp habitat at Cholsey Marsh.
- Wet Woodland: A number of small areas of wet woodland, some on islands in the Thames that support populations of Lodden lily.
- Wet grassland. There are a few wet meadow sites including Cholsey Marsh and fields near Wallingford.

Access: Thames path, Cholsey Marsh Nature Reserve

Archaeology:

Targets: Swamp habitat, including reedbeds. Wet woodland management. There may be potential to extend the area of wet grassland.

Tusmore and Shelswell Parks with Stoke Lyne Woodlands Conservation Target Area



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Tusmore and Shelswell Parks with Stoke Lyne Woodlands

This are encompasses the parks and woodlands at Tusmore and Shelswell Parks and a number of ancient woodlands near Stoke Lyne.

Joint Character Area: Cotswolds and West Anglian Plain.

Landscape Types: Wooded Estateland plus a small area of Farmland Plateau (though this area includes a large wood).

Geology: Limestone with some mudstone and limestone mixtures to the south. Extensive glacial sand and gravel deposits in the parklands with alluvium along streams.

Topography: largely flat plateau land intersected by shallow valleys.

Biodiversity:

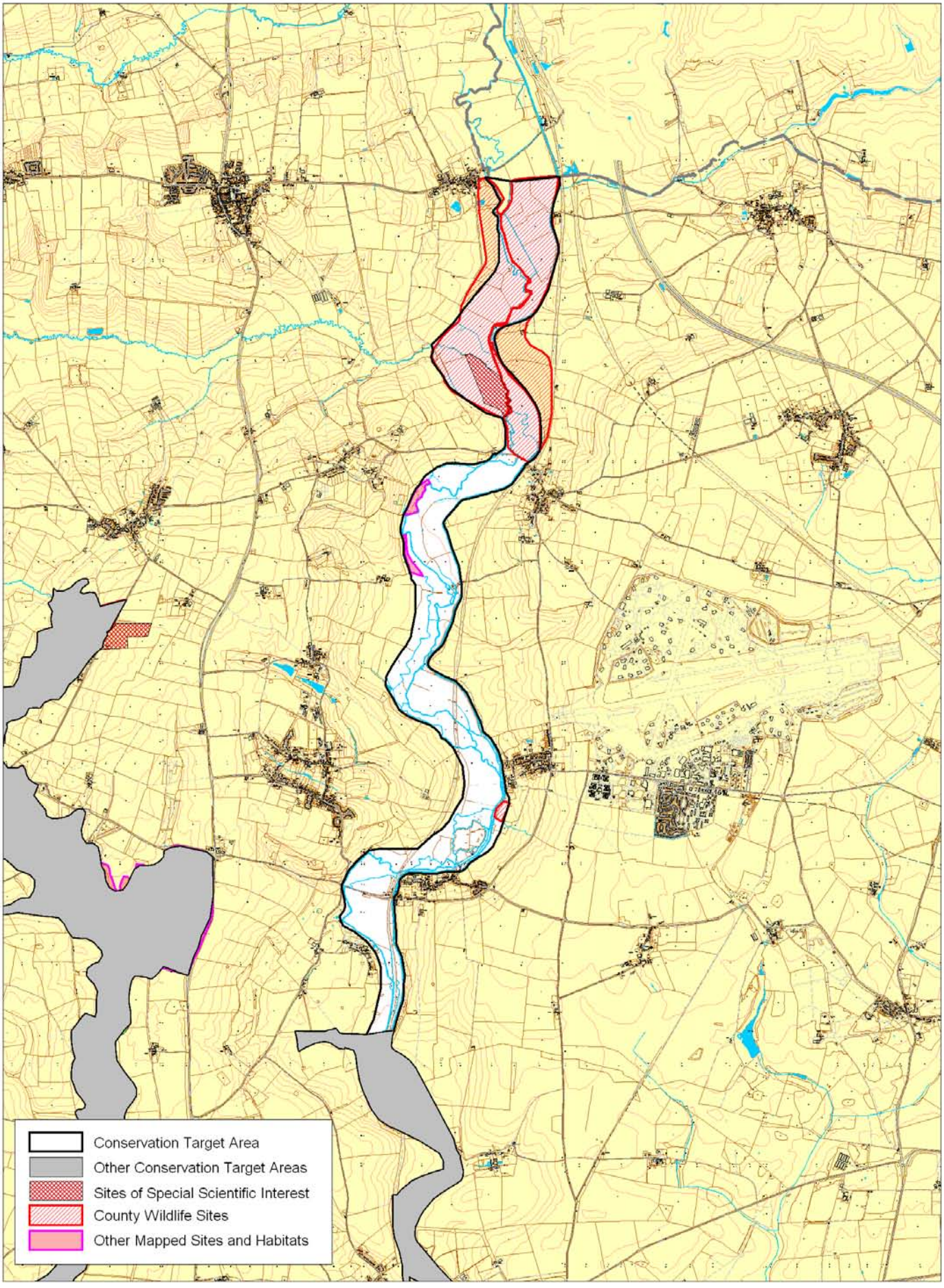
- Parkland: Large parks at Tusmore and Sheslwell, though the importance of these have not been assessed, with large areas of woodland.
- Lowland Mixed Deciduous Woodland: Besides the parkland woods there are a number of ancient woodland sites near Stoke Lyne.
- Other habitats: the parks have lakes. On the northern side of Shelswell Park, Cottisford Pond is a County Wildlife Site along with the adjacent wet woodland.

Access: Stoke Wood is a Woodland Trust nature reserve. Otherwise access is restricted to bridleways and footpaths.

Archaeology:

Targets: Woodland management and possibly some planting to link sites. Parkland/veteran tree management and restoration.

Upper Cherwell Valley Conservation Target Area



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Upper Cherwell Valley

The Cherwell Valley from Lower Heyford to Clifton. This encompasses the flat wet riverside land and the Oxford Canal, which often forms the boundary of the area.

Joint Character Area: Cotswolds

Landscape Types: River Meadowlands

Geology: Largely alluvium, some sand and gravel and Lias mudstone at the edge.

Topography: Flat riverside land.

Biodiversity:

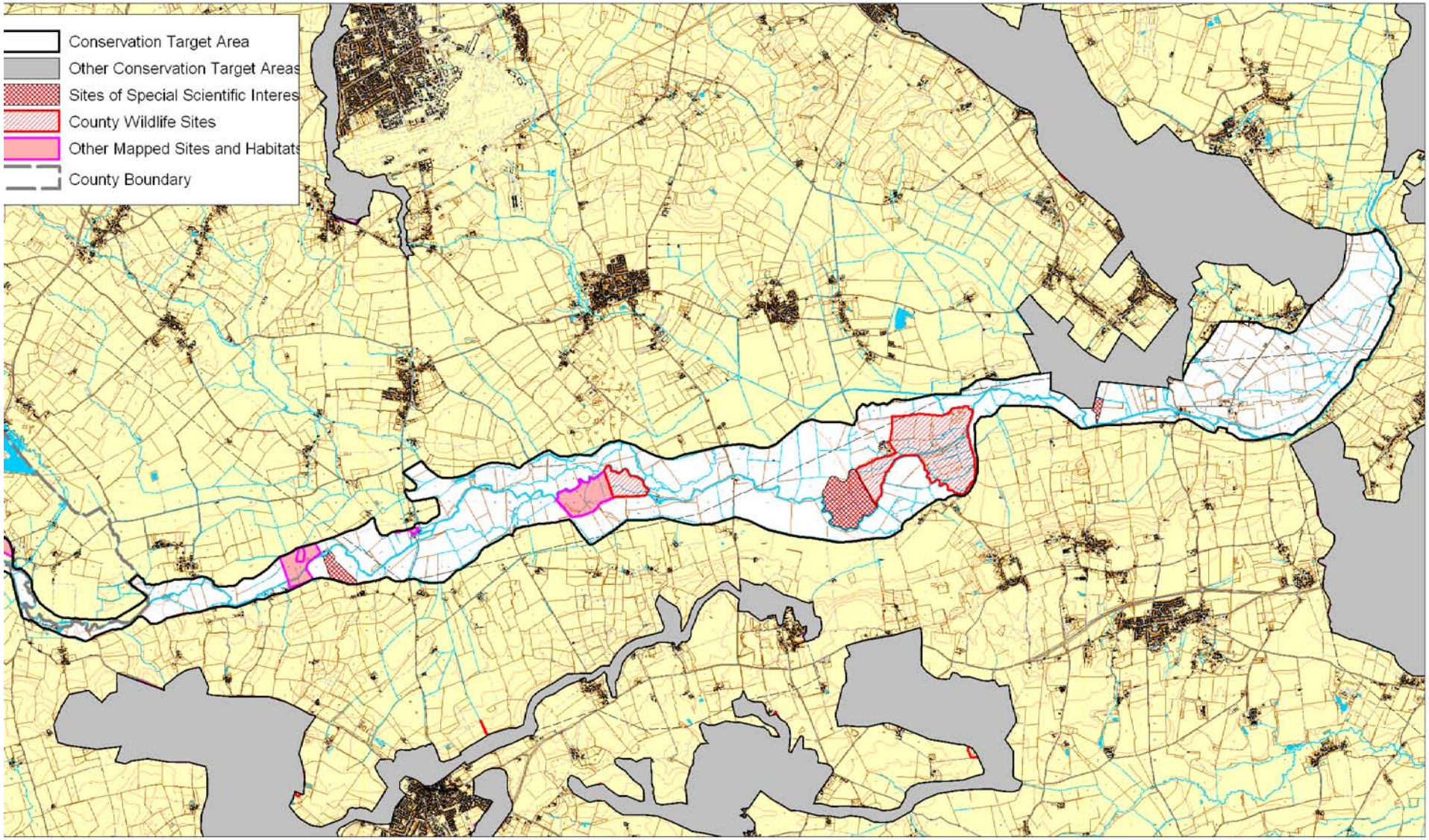
- Lowland Meadow: The largest site is Bestmoor SSSI. There are a few other small sites.
- Wet Grassland: There are some fields with wet grassland habitat and remnants elsewhere.
- Other habitat: The River Cherwell and Oxford Canal. Some woodland has been planted here.
- Species: this area has been important for wading birds and overwintering wildfowl though less so these days.

Access: The Canal is the main accessible area.

Archaeology:

Targets: Lowland meadow management and restoration. Wet grassland restoration to improve the area for waders and wildfowl. There is potential to create some reedbed habitat in this area.

Upper Thames Conservation Target Area



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Upper Thames

The riverside land between Northmoor and the County boundary.

Joint Character Area: Thames and Avon Vales.

Landscape Type: River Meadowland and Alluvial Lowland.

Geology: Alluvium

Topography: Flat riverside land

Biodiversity:

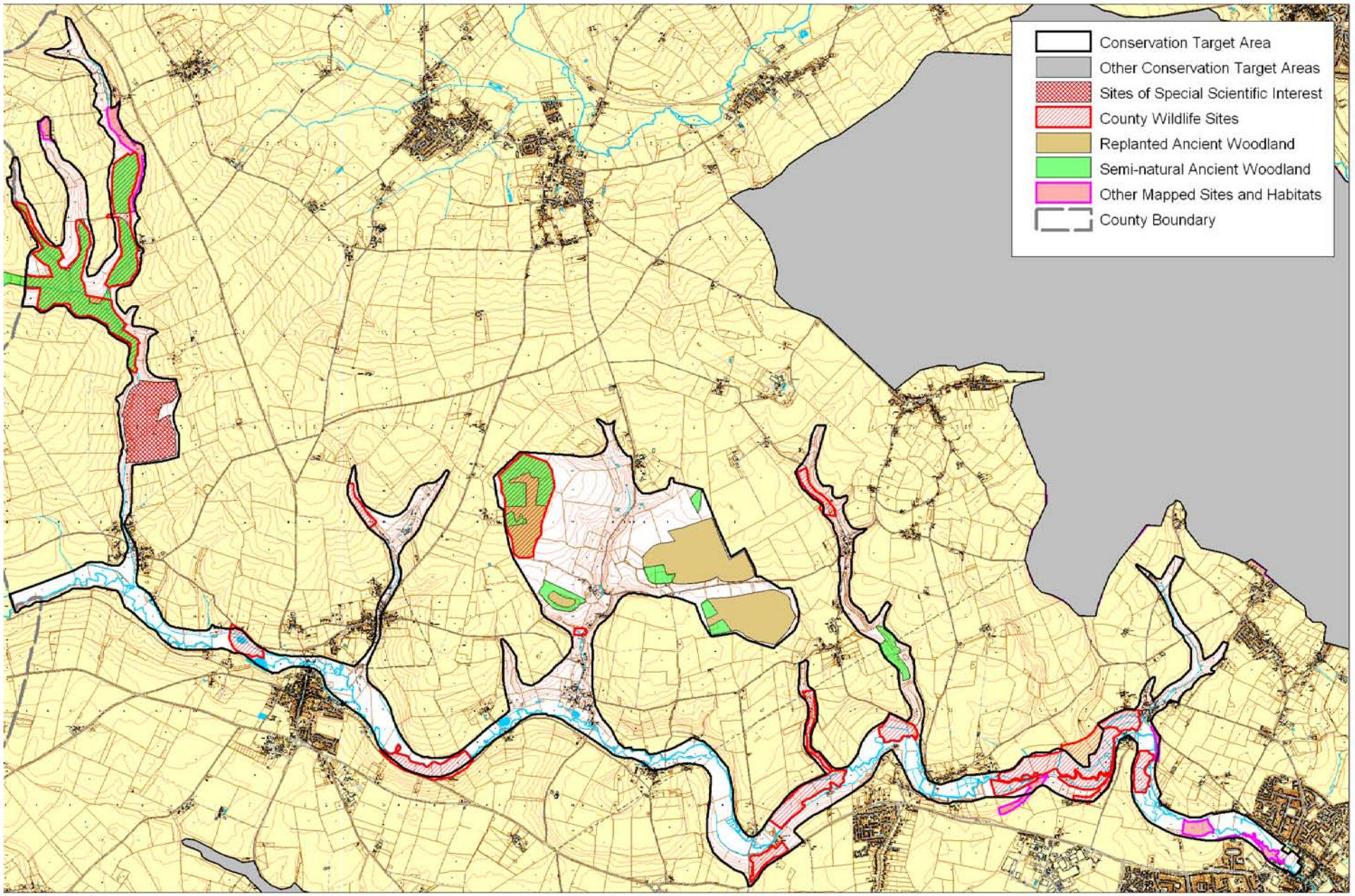
- Lowland Meadows: The key habitat in this area. There is an extensive area at Chimney Meadows SSSI and a large restoration protect on adjacent land owned by BBOWT. Sites are scattered elsewhere and include Langleys Lane Meadows SSSI, Grafton Lock Meadow SSSI and Buckland (Carswell) Marsh County Wildlife Site. There are other meadows with snake's-head fritillary near Grafton Lock.
- Wet grassland: found in one meadow at Chimney Meadows. This habitat has developed in set aside fields where birds such as curlew and skylark have been recorded.
- Eutrophic Standing Water and reedbed: One gravel pit with nature conservation afteruse near Standlake is included though this may be better positioned in the Lower Windrush Area.
- Other species: the area has been very important for wading birds in the past, especially at Chimney, and still retains some important areas. Curlew still nest in the area and there is an important area near Northmoor for nesting lapwing.

Access: Chimney Meadows is a National Nature Reserve. Controlled access here and in the adjacent BBOWT land. Thames path along the River.

Archaeology:

Target: Restoration and management of lowland meadow. Restoration of wet grassland habitat for breeding waders. There may be some potential to create areas of reedbed.

Upper Windrush Valley Conservation Target Area



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Upper Windrush

The valley of the Windrush from Witney to the Oxfordshire border. Much of the area is the flat riverside land but includes some of the steeper valley slopes where limestone grassland is found. The area includes the numerous small valleys that run north of main valley and cut into the Cotswold plateau.

Joint Character Area: Cotswolds

Landscape Types: River Meadowlands along the main valley. Farmland Slopes and Valley Sides in places on the main valley and in some of the northern valleys. Wooded Valleys Pasture and Slopes in other northern valleys. The small valley at Crawley is classed as Settle Ancient Pastures.

Geology: Alluvium on the flat riverside land extending along the base of some of the smaller northern valleys. Limestones are found on the valley sides along with some Forest Marble mudstone, and also along most of the smaller northern valleys. To the west there is Lias mudstone and some Lias siltstone at the valley edge and in the valley north of Taynton along with iron rich limestone (Marlstone Rockbed).

Topography: Flat riverside land with some adjacent steep banks along with narrow steep sided valleys running north.

Biodiversity:

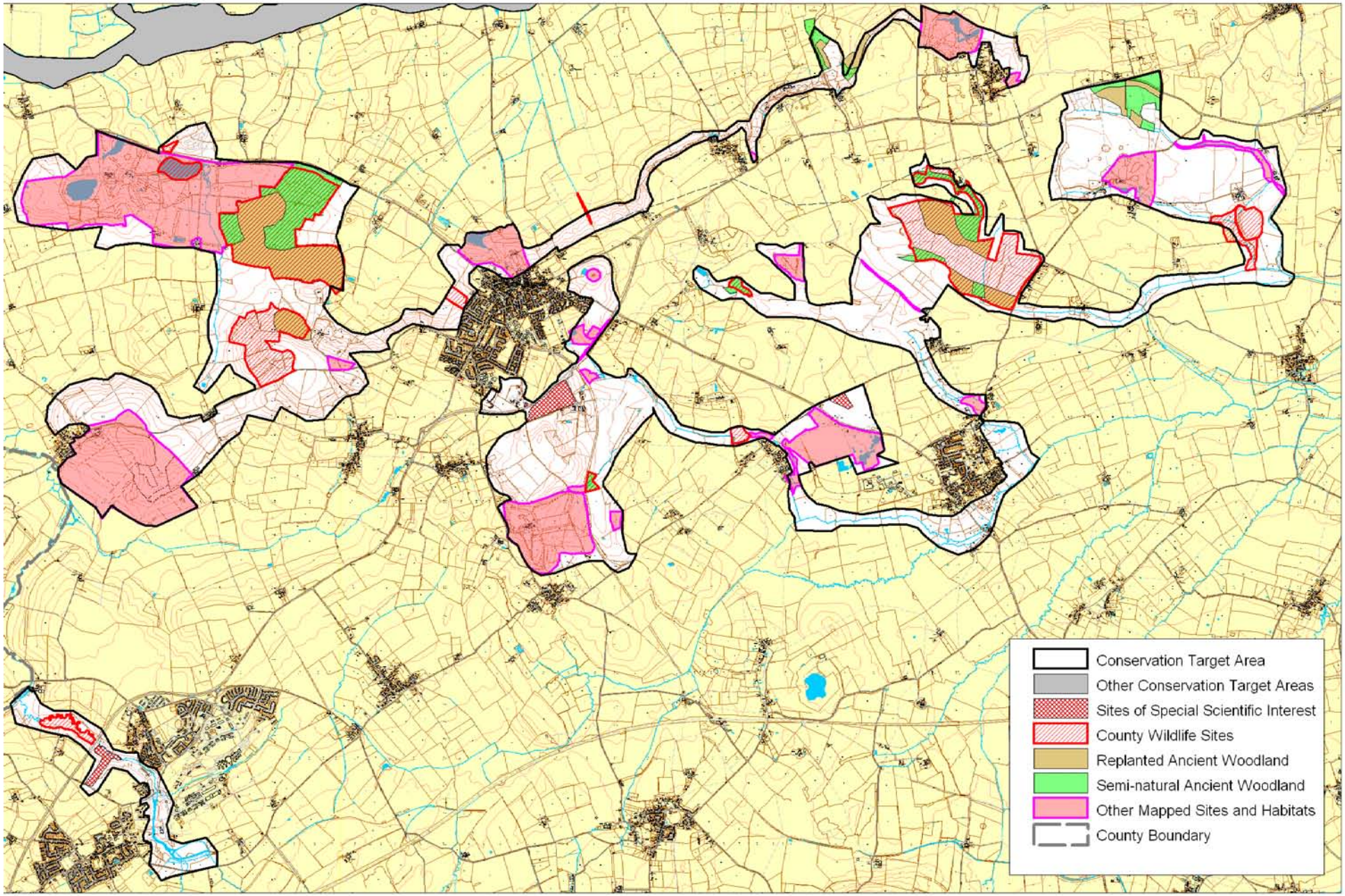
- Lowland Meadows: The main sites are at Crawley, where there are particularly rich sites and at Worsham. There are remnants of this habitat elsewhere in the meadows at Minster Lovell and near Burford.
- Wet grassland: There is some wet grassland near Burford where shallow pools have been created and in a number of other riverside meadows such as Minster Lovell Marsh, Crawley Mead and some meadows between Crawley and Witney.
- Swamp and Fen: The main swamp sites are at Minster Lovell Marsh, Crawley Mead and Minster Lovell Fishponds. Remnants of this habitat are found elsewhere on islands near Witney. Fen is found along the narrow valleys that run north at Swinbrook and Taynton Quarries SSSI. The valley north of Taynton has many spring sites at the southern end.
- Limestone grassland: On the main valley limestone grassland is restricted to the steeper banks such as the meadow above the pumping station at Worsham, on some road verges with remnants in quarries at Worsham. Taynton Quarries SSSI has the most extensive area of limestone grassland. Smaller banks are found along some of the other valleys including a number of County Wildlife Sites. Remnant limestone grassland is found in other valleys.
- Woodland: There is one important site along the main valley near Crawley. It is more common in the northern valleys especially at Taynton where there are substantial areas and in a valley near Asthall Leigh.
- The main river valley has good numbers of willow pollards.
- Species: the area has been important for breeding waders and has potential for restoration of suitable habitat.

Access: restricted to footpaths and bridleways.

Archaeology:

Targets: management and restoration of lowland meadows, wet grasslands (for waders), swamp, and limestone grassland. Management of woodland.

West Oxford Heights Streams, Hills, Woods and Parks Conservation Target Area



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West Oxford Heights Streams, Woods, Hills and Parks

A complex area encompassing the majority of important habitat in the Oxfordshire Heights in the west of the county. It includes a number of stream valleys, including the outlying Pennyhooks Brook, some land between these valleys, a number of hills and parks and the northern escapement of the Oxfordshire Heights from Faringdon to Littleworth.

Joint Character Area: Midvale Ridge.

Landscape Types: Wooded Estatelands, Rolling Farmland (mainly along the Pennyhooks Brook), a small area of Clay Vale at Standford-in-the-Vale.

Geology: Complex though largely sandstone, limestone and mudstone clay. Sandstone and limestone to the east, alluvium along the valleys, hills of Greensand sandstone, Calcareous Grit sandstone, siltstone and mudstone in bands on the hills and extending along the northern escarpment along with some Ampthill Clay mudstone, Oxford Clay mudstone at the base of the escarpment and some hills and at Buscot Park. Pennyhooks Brook Valley is siltstone, sandstone, mudstone and limestone with alluvium.

Topography: To the east there are narrow stream valleys cutting through gently rising land along with some land between. To the west the area encompasses a series of hills and the between. To the north there is north facing escarpment.

Biodiversity:

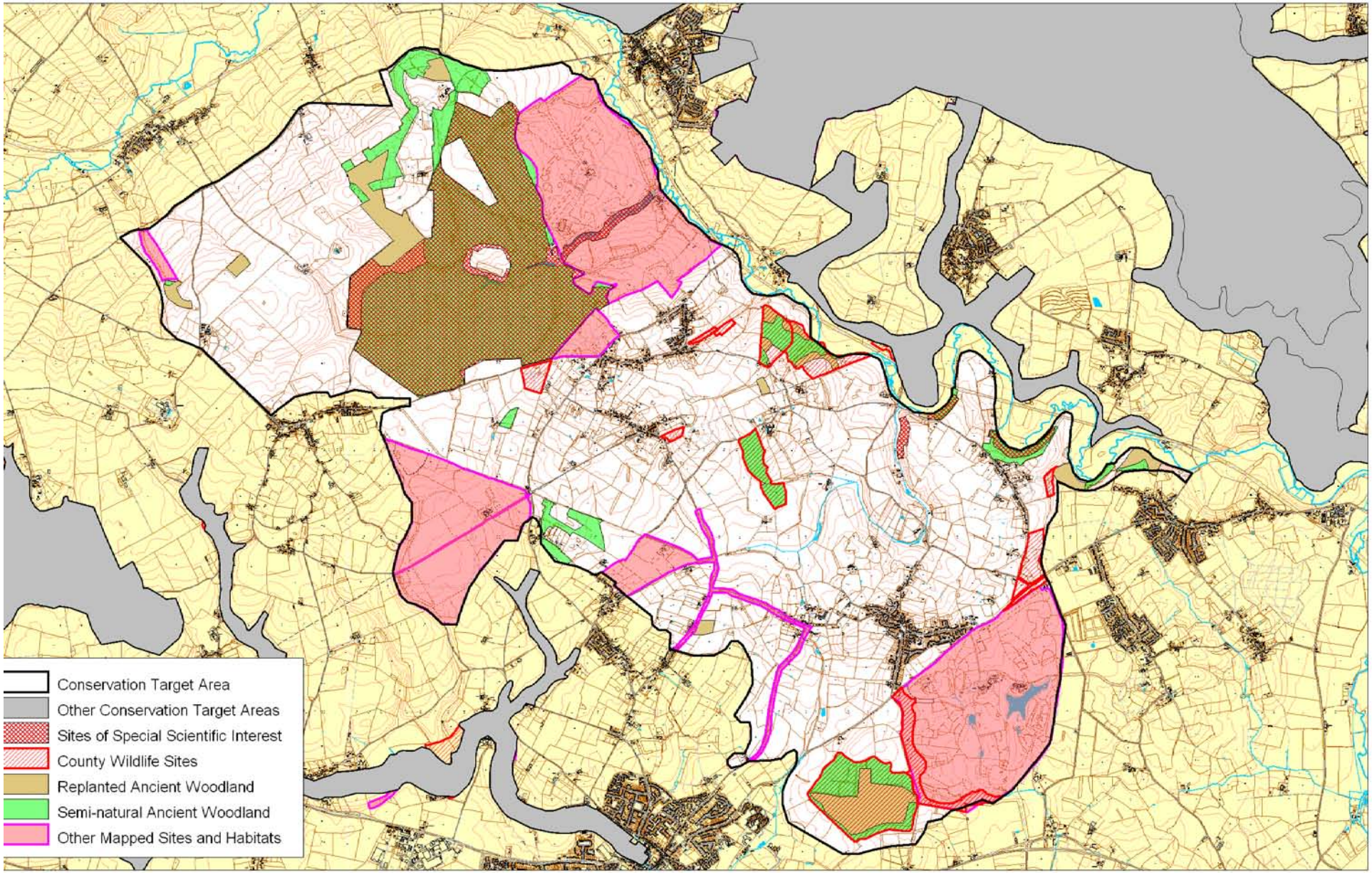
- Wet woodland: Found in small sites along the stream valleys.
- Acid grassland: there are small remnant patches of acid grassland, sometimes with lichen heath, often associated with quarries. Although small and scattered these areas often support an interesting invertebrate fauna.
- Fen: small areas are found along the stream valleys often in association with wet woodland sites some of which have developed on once open fen. This is the case at Buckland Warren Woods. The main site is along the Pennyhooks Brook at Shrivenham.
- Lowland Mixed Deciduous Woodland: Found in numerous sites including Buckland Warren Woods and Badbury Forest.
- Lowland Meadow: restricted to one site at Faringdon and along the Pennyhooks Brook although there are remnants in wet grassland near Standford-in-the-Vale.
- Parkland: There are many areas of parkland. The value of some sites have yet to be investigated. Coleshill Park and Buscot Park are the most important sites. Other sites are found at Faringdon, Barcote and Pusey.
- Calcareous grassland – although the north east of the area has been suggested as a target area for calcareous grassland it is only found on the ramparts of Cherbury Camp. The only other site is a Tuckmill Meadows.
- Geology: There are three geological SSSI's near Faringdon.
-

Access: Mainly restricted to bridleways and footpaths. National Trust woodland at Badbury Camp has access along tracks.

Archaeology: Badbury Fort, Cherbury Camp

Targets: Management of wet woodland and associated fen, management and restoration of acid grassland, woodland management, parkland/veteran tree management and restoration. Significant areas in the west are owned by the National Trust are in Countryside Stewardship or will in the Higher Level Scheme.

Wychwood and Lower Evenlode Conservation Target Area



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Wychwood and Lower Evenlode

The remains of Wychwood Forest and extensive areas within the old forest boundary extending as far as Eynsham Hall Park. It includes the southern side of the Evenlode Valley

Joint Character Area: Cotswolds

Landscape Types: Wooded Farmland, Wooded Estate Slopes and Valley Sides, Farmland Slopes and Valley Sides, Settled Ancient Pastures.

Geology: Mainly a variety of limestone rocks extending onto the Oxford Clay to the south. Some areas of glacial sand and gravel at North Leigh and in the vicinity of Wychwood.

Topography: A rolling plateau intersected by a number of dry and wet valleys that run down to the Evenlode Valley. Includes the steeper valley sides along the southern edge of the Evenlode Valley.

Biodiversity:

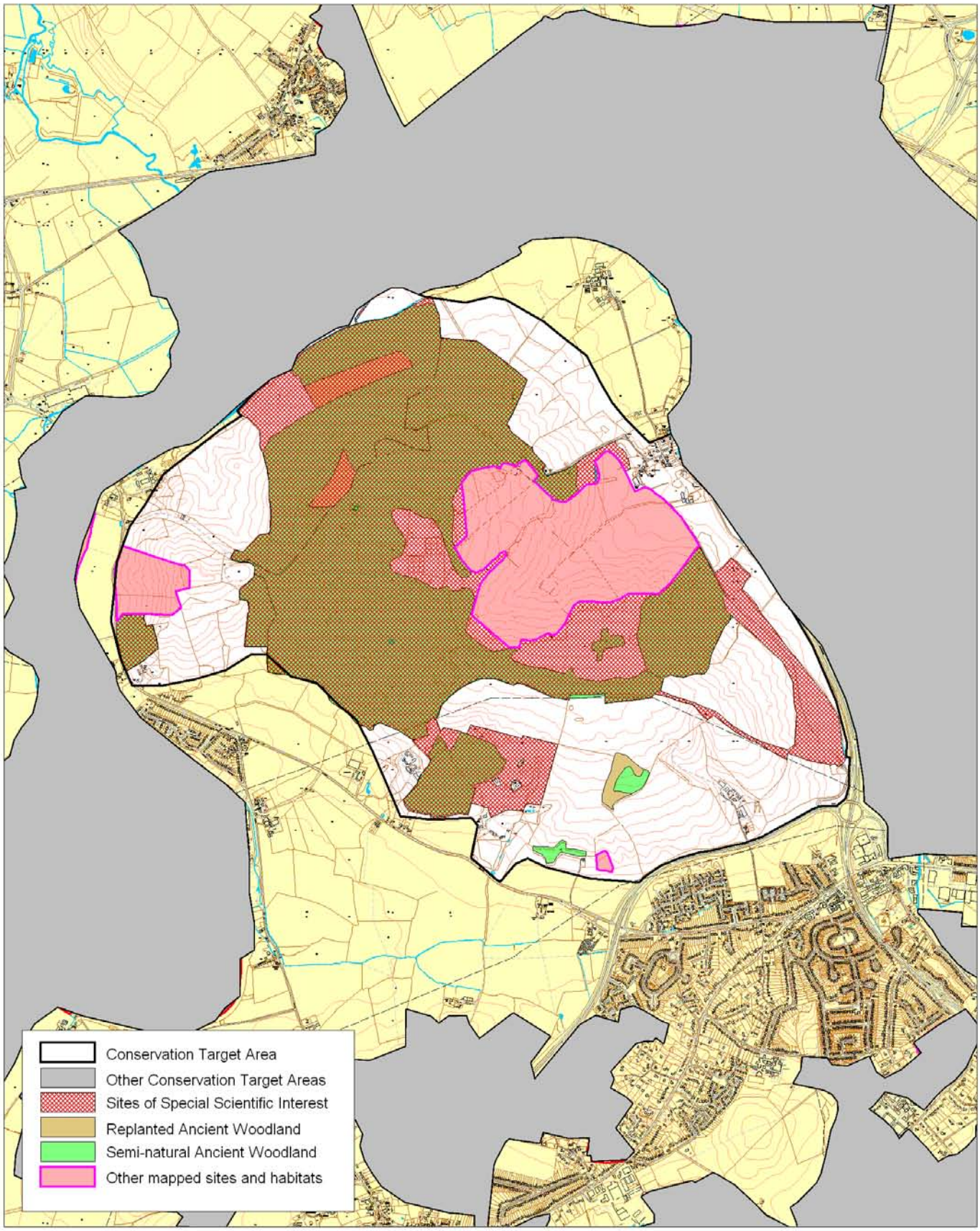
- Woodland. The largest feature is the rich ancient woodland of Wychwood. Numerous other woodlands, that were part of the original Wychwood Forest, are present extending as far as Cogges Wood and Eynsham Hall Park. Also includes the hanging woodland along the Evenlode Valley including Sturt Copse SSSI.
- Parkland. There are two significant historic parklands – Cornbury which is known to be of high interest and Eynsham Hall which is thought to be of significant interest.
- Limestone grassland. This habitat is associated with the valleys that cut through the area and is also found on a section of the Cotswold Line and on road verges.
- Species rich hedgerows. Many of the hedgerows are rich in species and derived from enclosure of Wychwood Forest.
- Heathland and acid grassland. Remnants of this habitat are found where the glacial sands and gravels are found especially at North Leigh Heath and also at Ramsden and within woodland to the north-west of Wychwood.

Access: North Leigh Heath, Woodland Trust Reserve at Ramsden, various footpaths and bridleways

Archaeology:

Targets: Woodland management, parkland/veteran tree management and restoration, limestone grassland management and restoration along the valleys, heathland restoration at suitable sites.

Wytham Conservation Target Area



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Wytham Hill

This area is dominated by the wooded Wytham Hill.

Joint Character Area: Midvale Ridge

Landscape Type: Wooded Hills

Geology: The hill is capped with limestone. Then there is a band of sandstone. On the lower slopes and much of Beacon Hill the geology is Oxford Clay mudstone.

Topography: A prominent hill rising out the Thames Valley which also includes Beacon Hill to the west.

Biodiversity:

- Woodland covers a large part of this area. Most of the woodland is within the woods of Wytham SSSI which form a large and continuous area. There are a number of smaller woodland areas on the southern slopes of the hill including Stroud Copse which is included in the SSSI. Some of the woodland was once wood pasture and there are many veteran trees.
- Limestone grassland: Found within the SSSI at Hill End and in the grazing plots near the summit of Wytham Hill. Beacon Hill, at the west end, may support limestone grassland but little is known about this site. The slopes of Beacon Hill are on the mudstone and may support lowland meadow habitat.
- Fen: On the northern edge there is a small area of fen meadow associated with flushes in a small sloping field. There are other fenny flushes within the woodland.

Access: Largely inaccessible.

Archaeology:

Targets: Woodland management, veteran tree management, restoration of limestone grassland especially to the south east, fen/flush management. The steep slopes of Beacon Hill may support lowland meadow habitat and there may be potential to restore other areas to this habitat.

Appendix 4 – Analysis of the extent to which the Conservation Target Areas 'capture' the UKBAP priority habitat and species and identification of the target areas with the greatest amount of selected UKBAP habitats.

1.0 SPECIES AND CONSERVATION TARGET AREAS

1.1 Method

A little over 3,000 records of UKBAP priority species made over a period of the last 25 years were used to estimate the extent to which important species are found within the Conservation Target Areas.

The use of records of UKBAP priority species was questioned during consultation. This was in part because not all species of conservation concern are classified as UKBAP priority species – many national and local rarities are not on UKBAP priority species lists for instance.

Records of a variety of 'species suites' were used initially in the analysis of the extent to which the Conservation Target Areas 'captured' species of conservation importance. During this and subsequent analyses, the significant factor determining whether a record was inside or outside a target area appeared to be more to do with the behaviour and ecology of the species than the rarity or degree of conservation concern. The figures from the UKBAP suite of species were not significantly altered when non-BAP rare species (of which there are few records) were added to the mix. A decision was taken to use records of UKBAP priority species for the analysis because:

- The records were distributed across Oxfordshire
- A fair number of records were available
- The species displayed a variety of ecological and behavioural characteristics
- The species include a variety of taxonomic groups (birds, butterflies, invertebrates, mammals etc.)
- Records included those of species that are recently extinct in the County (not in the UK) and are indicative of quality habitat having occurred in the past

Data were analysed using the Mapinfo Geographical Information system and simple statistical analysis to determine the percentage of records made within and outside target areas.

1.2 Results

Records of 83 UKBAP priority species were used in the analysis. 76 of these species were recorded fairly regularly and 7 were recorded only once as rare casuals.

72 of these species were recorded within target areas, 60 of them were recorded outside the target areas. The target areas cover only 17% of the land area of Oxfordshire and the occurance of 95% of the species within these areas is significant. 5 species only occur outside the target areas and for these TVERC holds only a single record and it is therefore hard to judge whether this is significant.

Of the 3000+ records considered, 47% were made inside target areas and 53% outside. If you look at these figures in the light of the differential in size between outside and inside that target areas (83% of land is outside, 17% inside) the figures are more striking. The analysis suggests that you are more than four times more likely to encounter a UKBAP priority species in a target area than outside one.

The more mobile UKBAP priority species that utilise a range of habitats or widely occurring habitats were less often recorded in the Conservation Target Areas than the more sedentary and/or habitat-faithful species. 95% of the records for a small suite of butterflies (not all extant in the county) were made within target areas. 43% of the records for more mobile and ubiquitous UKBAP mammal species were made within target areas (still more than you would expect if the distribution of the mammals was random – this would be 17%).

1.3 Conclusions

We must be cautious in making conclusions from a relatively small sample of records collected in a non-systematic way over a fairly long period of time. However, the results of the simple analysis carried out on the records of UKBAP priority species do indicate that the Conservation Target Area boundaries have been wisely drawn.

2.0 HABITATS AND CONSERVATION TARGET AREAS

2.1 Method

Location and extent of UKBAP priority habitats have been recently mapped in Oxfordshire using the most comprehensive and up to date field information available. The digital habitat data for a range of habitats were used to test the extent to which the Conservation Target Areas 'captured' the habitats of importance. The habitats that were examined include:

- Eutrophic standing water (ESW)
- Fen (F)
- Floodplain grazing marsh (CFGM)
- Lowland beech and yew woodland (LBYW)
- Lowland calcareous grassland (LCG)
- Lowland dry acid grassland LDAG)
- Lowland heath (LH)
- Lowland meadow (LM)
- Lowland mixed deciduous woodland (LMDW)
- Lowland wood pasture and parkland (LWPP)
- Reedbed (RBD)
- Wet woodland (WW)

Important BAP habitats that have not been mapped and were therefore not considered include:

- Ancient and/or Species rich hedgerows
- Cereal field margins
- Mesotrophic lakes

A closer analysis of calcareous grassland, lowland meadow, fen and lowland mixed deciduous woodland was made to inform the selection of the handful of target areas of top priority of conservation action.

Field data relating to all the mapped habitat has been carefully examined to make sure that the habitat is of sufficient quality to be defined as UKBAP priority habitat. However, the data are of variable quality and the degree of confidence and the accuracy of the mapping reflect this. Mapping across the county is not complete and to date has concentrated mainly on priority habitat within County Wildlife Sites and Sites of Special Scientific Interest. An estimated 85% of the priority habitat in the county has been mapped. Figures resulting from the analysis should therefore be viewed as indicative rather than absolute.

The analysis used Mapinfo GIS and simple statistics to work out how much of each habitat was to be found inside and outside the target areas.

2.2 Results

86.5% of all the land on which TVERC has mapped BAP habitat is within a Conservation Target Area, 13.5% is outside.

Some habitats are better 'captured' by the target areas than others (see table below).

BAP_Priority_Habitat	Area of habitat in a target area (hectares)	Area of habitat in the County (hectares)	% of County resource within target areas
Coastal and floodplain grazing marsh	359.49	363.56	98.88
Lowland meadows	1022.34	1101.75	92.79
Fens	90.85	98.59	92.15
Lowland beech and yew woodland	517.92	578.39	89.55
Lowland heathland	2.57	2.97	86.53
Eutrophic standing waters*	306.91	355.72	86.28
Lowland dry acid grassland	34.98	41.42	84.45
Lowland calcareous grassland	554.21	672.61	82.40
Lowland mixed deciduous woodland*	1904.3	2467.43	77.18
Wet woodland	74.88	98.57	75.97
Reedbeds*	4.5	6.59	68.29
Lowland wood-pastures and parkland*	57.63	101.3	56.89
TOTALS	**4930.58**	**5888.9**	**83.73**

A closer analysis of calcareous grassland, lowland meadow, fen and lowland mixed deciduous woodland was used to help identify target areas that were particularly important for particular habitats. The results are shown in tables on the following tables. The abbreviations used on the tables are listed on page 96.

Target Areas of Importance for Lowland Calcareous Grassland

Target_Area_Name	Target area total hectares	Number of LCG polygons in this target area	Hectares of LCG in this target area	Percent of LCG in County in this target area	LCG league table based on size	Size range	Other habitats in this target area
Chilterns Escarpment North	1427.79	27	126.98	18.66	1	10 to 20ha	LBYW, LCG, LDAG, LMDW
Berkshire Downs Escarpement Core West and Valleys	1454.65	20	80.20	11.78	2	10 to 20ha	LBYW, LCG, LM, LMDW, LWP&P
Berkshire Downs Escarpment Core East	486.21	7	68.65	10.09	3	10 to 20ha	LCG
Chilterns Escarpment South	762.22	15	48.75	7.16	4	4 to 7ha	LBYW, LCG, LM, LMDW
Glyme	2495.64	20	48.24	7.09	5	4 to 7ha	ESW, F, LCG, LDAG, LM, LMDW, RBD, LWP&P, WW
Blewbury Downs South East	1332.81	9	47.77	7.02	6	4 to 7ha	LBYW, LCG, LMDW
Upper Windrush	1274.19	8	45.38	6.67	7	4 to 7ha	ESW, F, LCG, LM, LMDW
Chilterns Dipslope and Plateau	4854.74	20	43.13	6.34	8	4 to 7ha	LBYW, LCG, LDAG, LH, LM, LMDW, LWP&P
North Evenlode Valleys	1448.1	6	33.44	4.91	9	4 to 7ha	F, LBYW, LCG, LM,LMDW
Swere Valley and Upper Stour	836.43	12	14.44	2.12	10	1 to 2 ha	ESW, F, LCG, LM, LMDW, WW
Wychwood and Lower Evenlode	4764.99	7	10.56	1.55	11	1 to 2 ha	ESW, LCG, LDAG, LM, LMDW
Blenheim and Ditchley Parks	2651.46	3	7.68	1.13	12	1 to 2 ha	LBYW, LCG, LDAG, LM, LMDW, LWP&P
Oxford Heights West	3296.63	8	7.01	1.03	13	1 to 2 ha	F, LCG, LDAG, LM, LMDW, RBD, WW
Lower Cherwell Valley	608.99	6	4.14	0.61	14	Less than 1ha	ESW, F, LCG, LM, RBD, WW
Chilterns Escarpment South Central	453.9	3	3.42	0.50	15	Less than 1ha	LBYW, LCG, LMDW
West Oxon Heights Streams, Hills, Woods and Parks	2630.6	2	3.20	0.47	16	Less than 1ha	ESW, F, LCG, LM, LMDW, WW
Kirklington and Bletchingdon Parks and Woods	504.97	2	2.36	0.35	17	Less than 1ha	ESW, F, LCG, LMDW, RBD, WW
Oxford Heights East	997.37	2	1.60	0.23	18	Less than 1ha	F, LBYW, LCG, LM, LMDW, WW
South Cotswolds Valleys	271.46	1	1.16	0.17	19	Less than 1ha	F, LCG, LM
Chilterns Escarpment Central	952.48	1	0.26	0.04	20	Less than 1ha	LBYW, LCG
All target areas		179.00	598.36	87.91			

Target Areas of Importance for Lowland Meadow

Target_Area_Name	Target area total ha	Number of LM Polygons in this target area	Hectares of LM in this target area	Percent of LM in County in target area	LM league table based on size	Size range	Other habitats in this target area
Oxford Meadows and Farmoor	1652.5	16	277.25	26.68	1	10 to 30ha	ESW, F, LM, LMDW, RBD, WW
Otmoor	1894.8	11	165.46	15.92	2	10 to 30ha	CFGM, F, LM, LMDW, WW
Upper Thames	2240.7	5	119.25	11.48	3	10 to 30ha	F, LM
Ray	985.05	15	96.74	9.31	4	2 to 10ha	LM
Thames and Cherwell at Oxford	660.36	10	58.51	5.63	5	2 to 10ha	ESW, F, LM, LWP&P, WW
Glyme	2495.6	8	51.71	4.98	6	2 to 10ha	ESW, F, LCG, LDAG, LM, LMDW, RBD, LWP&P, WW
Chilterns Dipslope and Plateau	4854.7	6	32.26	3.11	7	2 to 10ha	LBYW, LCG, LDAG, LH, LM, LMDW,
Bernwood	987.69	9	24.09	2.32	8	2 to 10ha	LMDW, LM
Wychwood and Lower Evenlode	4765	8	18.58	1.79	9	1 to 2 ha	ESW, LCG, LDAG, LM, LMDW
Swere Valley and Upper Stour	836.43	9	17.64	1.70	10	1 to 2 ha	ESW, F, LCG, LM, LMDW, WW
Upper Windrush	1274.2	7	17.52	1.69	11	1 to 2 ha	ESW, F, LCG, LM, LMDW
South Cotswolds Valleys	271.46	5	12.48	1.20	12	1 to 2 ha	F, LCG, LM
Upper Cherwell	446.99	1	11.90	1.15	13	1 to 2 ha	F, LM
Brill and Muswell Hill	98.39	1	11.73	1.13	14	1 to 2 ha	LM
Northern Valleys	1367.2	5	10.58	1.02	15	1 to 2 ha	F, LM
North Evenlode Valleys	1448.1	3	9.86	0.95	16	> 1ha	F, LBYW, LCG, LM,LMDW
Lower Windrush Valley	1409.7	2	6.78	0.65	17	> 1ha	ESW, F, LM, RBD, WW
Oxford Heights East	997.37	2	6.19	0.60	18	> 1ha	F, LBYW, LCG, LM, LMDW, WW
Thames Clifton to Shilligford	487.31	3	6.17	0.59	19	> 1ha	ESW, LM, LMDW, WW
Lower Cherwell Valley	608.99	2	5.80	0.56	20	> 1ha	ESW, F, LCG, LM, RBD, WW
Oxford Heights West	3296.6	4	5.51	0.53	21	> 1ha	F LCG LDAG LM LMDW, RBD, WW
Berkshire Downs Escarpment Core West	1454.7	2	4.63	0.45	22	> 1ha	LBYW, LCG, LM, LMDW, LWP&P
West Oxon Heights	2630.6	3	4.40	0.42	23	> 1ha	ESW, F, LCG, LM, LMDW, WW
Chilterns Escarpment South	762.22	2	4.37	0.42	23	> 1ha	LBYW, LCG, LM, LMDW
Shotover	554.43	1	1.20	0.12	24	> 1ha	LDAG, LH, LM, LMDW
All target areas		140.00	980.61	94.38			

Target Areas of Importance for Woodland UKBAP Priority Habitat

Target_Area_Name	Total ha of target area	No. of Woodland polygons in target area	Ha of woodland in target area	% of County woodland resource in target area	Percent of this target area that is woodland	Woodland league table total hectarage	Size range	Other habitats in this target area
Wychwood and Lower Evenlode	4765	17.00	493.69	15.27	10.36	1	>290ha	ESW, LCG, LDAG, LM, LMDW
Chilterns Dipslope and Plateau	4855	34.00	421.60	13.04	8.68	2	>290ha	LBYW, LCG, LDAG, LH, LM, LMDW, LWP&P
Chilterns Escarpment North	1428	34.00	322.80	9.99	22.61	3	>290ha	LBYW, LCG, LDAG, LMDW
Wytham Hill	903	4.00	316.86	9.80	35.08	4	>290ha	LMDW
Oxford Heights West	3297	51.00	291.36	9.01	8.84	5	>290ha	F, LCG, LDAG, LM, LMDW, RBD, WW
Blenheim and Ditchley Parks	2651	14.00	133.08	4.12	5.02	6	50-150ha	LBYW, LCG, LDAG, LM, LMDW, LWP&P
Bernwood	988	5.00	89.99	2.78	9.11	7	50-150ha	LMDW, LM
Blewbury Downs South East	1333	7.00	78.32	2.42	5.88	8	50-150ha	LBYW, LCG, LMDW
Chilterns Escarpment South	762	13.00	77.54	2.40	10.17	9	50-150ha	LBYW, LCG, LM, LMDW
Oxford Heights East	997	16.00	63.03	1.95	6.32	10	50-150ha	F, LBYW, LCG, LM, LMDW, WW
Shotover	554	5.00	62.98	1.95	11.36	11	50-150ha	LDAG, LH, LM, LMDW
West Oxon Heights	2631	19.00	48.34	1.50	1.84	12	25 to 50ha	ESW, F, LCG, LM, LMDW, WW
Berkshire Downs Escarpment	1455	10.00	46.67	1.44	3.21	13	25 to 50ha	LBYW, LCG, LM, LMDW, LWP&P
North Evenlode Valleys	1448	5.00	45.58	1.41	3.15	14	25 to 50ha	F, LBYW, LCG, LM,LMDW
Tusmore and Shellswell Park	844	4.00	30.69	0.95	3.64	15	25 to 50ha	ESW, LMDW, WW
Kirklington and Bletchingdon	505	6.00	25.33	0.78	5.02	16	25 to 50ha	ESW, F, LCG, LMDW, RBD, WW
Glyme	2496	13.00	24.76	0.77	0.99	17	10 to 25ha	ESW, F, LCG, LDAG, LM, LMDW, RBD, LWP&P, WW
Upper Windrush	1274	2.00	23.26	0.72	1.83	18	10 to 25ha	ESW, F, LCG, LM, LMDW
Thames Clifton to Shilligford	487	7.00	18.33	0.57	3.76	19	10 to 25ha	ESW, LM, LMDW, WW
Swere Valley and Upper Stour	836	13.00	18.01	0.56	2.15	20	10 to 25ha	ESW, F, LCG, LM, LMDW, WW
Otmoor	1895	7.00	12.67	0.39	0.67	21	10 to 25ha	CFGM, F, LM, LMDW, PMG&RP, WW
Oxford Meadows and Farmoor	1653	8.00	11.78	0.36	0.71	22	10 to 25ha	ESW, F, LM, LMDW, RBD, WW
7 target areas with small amounts of woodland not listed							<10ha	ESW, F, LM, LWP&P, WW
All target areas		307.00	2671.18	82.64				

Target Areas of Importance for Fen

Target_Area_Name	Total area of this target area	No. of Fen polygons in this target area	Hectares of Fen in this target area	Percent of County resource of Fen that is in this target area	Fen league table on number of fens	Fen league table on area	Other habitats in this target area
Thames Wallingford to Goring	166	4	23.79	19.87	6	1	F, LCG, LM
Thames and Cherwell at Oxford	660	10	21.60	18.04	4	2	CFGM, F, LM, LMDW, PMG&RP, WW
Oxford Heights West	3297	16	13.69	11.43	2	3	ESW, F, LM, LWP&P, WW
Otmoor	1895	4	11.28	9.42	6	4	F, LBYW, LCG, LM, LMDW, WW
Lower Cherwell Valley	609	11	7.91	6.60	3	5	F, LCG, LDAG, LM, LMDW, RBD, WW
Glyme	2496	9	7.27	6.07	5	6	ESW, F, LCG, LM, RBD, WW
South Cotswolds Valleys	271	2	7.10	5.93	8	7	ESW, F, LCG, LM, LMDW, WW
Oxford Meadows and Farmoor	1653	17	3.75	3.13	1	8	F, WW
Upper Windrush	1274	3	3.60	3.01	7	9	ESW, F, LCG, LM, LMDW, WW
Oxford Heights East	997	4	2.20	1.84	6	10	ESW, F, LCG, LM, LMDW
West Oxon Heights Streams, Hills, Woods and Parks	2631	4	1.91	1.60	6	11	ESW, F, LCG, LDAG, LM, LMDW, RBD, LWP&P, WW
Lower Windrush Valley	1410	3	1.43	1.20	7	12	ESW, F, LM, RBD, WW
Northern Valleys	1367	1	1.29	1.08	9	13	F, LBYW, LCG, LM,LMDW
Swere Valley and Upper Stour	836	4	1.22	1.02	6	14	ESW, F, LM, LMDW, RBD, WW
Kirklington and Bletchingdon Parks and Woods	505	3	1.13	0.94	7	15	F, LM
Upper Thames	2241	1	1.06	0.88	9	16	ESW, F, LCG, LMDW, RBD, WW
North Evenlode Valleys	1448	1	0.25	0.21	9	17	F, LM
Upper Cherwell	447	1	0.20	0.16	9	18	F, LM
All target areas		98.00	110.68	92.41			