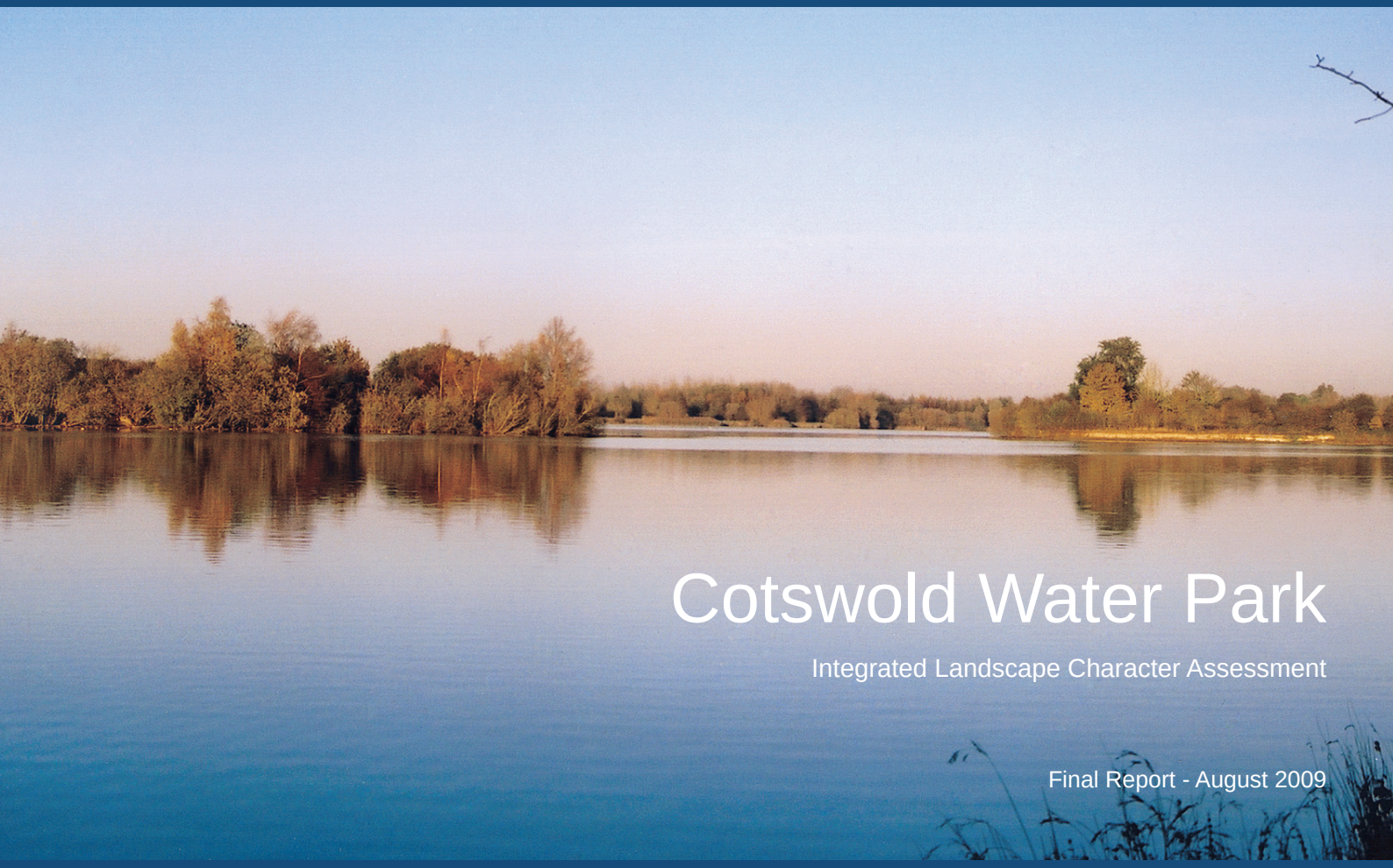

Cotswold Water Park

Integrated Landscape Character Assessment

Final Report - August 2009

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LDĀDESIGN

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1.1 Appointment and Brief

In October 2006 Wiltshire County Council appointed LDA Design to undertake a Landscape Character Assessment (LCA) of the Cotswold Water Park. The findings of the LCA formed part of a suite of baseline studies to inform a Strategic Review of the Cotswold Water Park (CWP) and the development of a Masterplan and Management Strategy for the area. This study was adopted in July 2008.

The Implementation Plan within the Strategic Review set out a co-ordinated work programme for the next five years, including priorities and a timetable for action within that period. In relation to the Landscape Character Assessment, Item CP2 of the Implementation Plan recommended that it should be converted into a Landscape Strategy for the CWP. This would enable the identification of *'the principles for strengthening the countryside character of the CWP, opening up lakelands, drawing together the natural heritage assets, and enhancing other features of interest.'*

Subsequent to the completion of the initial phase of the CWP LCA in May 2007, Wiltshire County Council appointed LDA Design in May 2008 to undertake further work on the study in order to provide an Integrated Assessment. The requirement for this next stage was to build on the Phase 1 LCA study and incorporate more comprehensive information for the core themes and topic areas. Furthermore, the descriptions of Landscape Character Types and summary descriptions of Landscape Character Areas would be expanded to include evaluation of the Types including the Forces for Change, Condition, Strength of Character and Landscape Sensitivities. These findings would then provide the evidence base for informing strategic and landscape management guidance.

This report comprises the culmination of this additional work to provide an Integrated Landscape Character Assessment and the framework for the further development of a Landscape Strategy for the Cotswold Water Park.

1.2 The Scope and Context of the Study

1.2.1 The Study Area

Figure 1 shows the extent of the Cotswold Water Park, with the current designated area identified by a red line. Beyond this, a blue line defines a functional boundary which was established in the Strategic Review in order to encompass the wider setting and area of direct influence of the Cotswold Water Park. This functional boundary also defines the limit of the Landscape Character Assessment study area.

A key action in the Strategic Review's Implementation Plan is to *'review and initiate changes to the current boundary of the Cotswold Water Park'* (IS8). The intention is that the CWP should encapsulate the full extent of its area of direct influence in order to address current and future issues, and the process of landscape change.

The mapping of the data for this LCA also incorporates relevant information beyond the functional boundary, where this is available, in order to illustrate the wider context of the CWP and provide continuity of information and relationship with adjacent areas.

1.2.2 Related Studies

The CWP is predominantly located within the counties of Gloucestershire and Wiltshire. However, with the identification of the functional boundary of the Park, a small area of Oxfordshire is now included, at the extreme eastern limit of the study area.

Recent Landscape Character Assessments have been undertaken by all of the local authorities that include land within the CWP. These comprise county level studies by Gloucestershire, Wiltshire and Oxfordshire County Councils, and district level studies by North Wiltshire, Cotswold and West Oxfordshire District Councils, and the Unitary Authority of Swindon Borough Council. These studies have been reviewed and their findings incorporated into the Landscape Character Assessment where appropriate.

In July 2007 the Government was minded to approve Wiltshire County Council's bid for 'One Council for Wiltshire'. As a result North Wiltshire District Council and the other three District Councils in Wiltshire will be dissolved in April 2009 and form part of the new Unitary Authority of Wiltshire Council. This new authority is shown on Figure 1. Notwithstanding these administrative changes, the findings of the LCA for the North Wiltshire sector of the study area remain of relevance to this study.

1.2.3 Scope of Work

The landscape patterns evident today have evolved gradually through the interaction of physical and human forces. Both the Gloucestershire and Wiltshire Landscape Character Assessments include a description of the evolution of the landscape and review the physical (geology and soils, landform, hydrology, land cover, woodland and trees), and human (archaeology, history, land use, enclosure patterns, settlement patterns and buildings styles) attributes of the landscape. Reference should therefore be made to these recently completed studies with regard to the wider context of the physical and human influences including the set of supporting

1.0 INTRODUCTION

Figures that illustrate the baseline resource in respect of Geology, Landform, Land Cover, Heritage and Nature Conservation designations.

An appraisal of past and present perceptions, including those of national and local artists, musicians and writers did not form part of the brief for the CWP or the Gloucestershire Assessment study. This aspect is reviewed in the Wiltshire Landscape Character Assessment, however, but is applicable at a county wide level and therefore does not focus on the CWP.

The Gloucestershire and Wiltshire Landscape Character Assessments review the evolution of the landscape at a county and regional scale. To provide a more local context, a description of the physical and historical development of the CWP is included in this study, together with a review of the principal issues in respect of the evolving landscape character of this unique and distinctive area.

1.3 Purpose of the Study

The purpose of the study is to provide a Landscape Character Assessment specifically focused on the CWP. The findings provide an up to date review of the landscape character of the study area at the current time and a baseline resource for other studies for the Water Park, including the ongoing work arising from the Implementation Plan that is a key output of the adopted Strategic Review.

The landscape character assessment has the following main objectives:

- to provide an assessment of the character, distinctiveness and qualities of the study area, and to identify and describe the component landscape character types and landscape character areas;
- to summarise the key characteristics associated with each landscape type to inform the principles in respect of landscape change; and
- to promote awareness of landscape character and the importance of landscape conservation, enhancement and restoration.

1.4 Approach and Methodology

Landscape characterisation is the practical process by which areas of distinctive character are classified, mapped and described. In this assessment landscape character types and landscape character areas have been identified.

The assessment has been completed in accordance with the most up-to-date methodology for landscape character assessment, as set out in the former Countryside Agency and Scottish Natural Heritage publication: *'Landscape Character Assessment Guidance for England and Scotland'*[1] (2002) . The main tasks were:

- a review of the various Landscape Character Assessments within and immediately surrounding the Cotswold Water Park, and the Landscape Character Types and Areas that had been identified within these studies;
- familiarisation with the study area through reconnaissance, information gathering, GIS interrogation, and overlay mapping at 1:25,000 scale;
- identification of draft types and areas to provide the framework for the filed assessment stage;
- site survey for landscape character types and landscape character areas; detailed mapping of landscape character types and landscape character areas to 1:25,000 scale, with final mapping in GIS at 1:25,000 scale; and
- report and digital map preparation.

1.5 Structure of the Report

This report presents up to date findings on the landscape character and key characteristics for the study area. It will provide a valuable source of information for those with an interest in the landscape of the CWP, and responsible for the land management and planning in the area.

Section1, Introduction: Introduces the scope and purpose of the Landscape Character Assessment and sets out the structure of the report.

Section 2, Review of Existing Landscape Character Assessments: Describes the national level of assessment to provide a context to the subsequent review of assessments that have been undertaken within the county and district authorities that extend across or are contiguous with the Cotswold Water Park. A comparison of the range of landscape character types and areas that have been identified within these various assessments is described and summarised in a table format.

1 Countryside Agency and Scottish Natural Heritage publication: 'Landscape Character Assessment Guidance for England and Scotland' (2002)

Section 3, The Cotswold Water Park: an Introduction: Provides an overview of the context and development of the Cotswold Water Park. The review focuses in particular on the adopted 'Strategic Review and Implementation Plan for the Cotswold Water Park' and the relevant strategic issues with regard to landscape character and change.

Section 4, Physical Influences: Sets out the physical factors that have shaped and influenced the character of the area and considers geology, topography, hydrology and soils.

Section 5, Historic Development: Describes the historical development of the CWP and the sequence and phases of human activities and occupation that have shaped the historic landscape character of the area, together with notable heritage features.

Section 6, Ecological Character: Provides an overview of the ecological character of the CWP and how it relates to the area's physical and landscape character and the changes arising from the mineral extraction activities and after uses.

Section 7, Leisure and Recreation Influences: Summarises the principal leisure and recreational influences on the CWP.

Section 8, Built Character: Describes the settlement pattern and character within the CWP and the range and types of buildings.

Section 9, Landscape Character Assessment Approach introduces the concept of Landscape Character Types and Areas for the study area, and issues regarding boundary delineation. The range of Character Types and Areas that have been identified within the CWP are set out in a Summary Table.

In **Section 10** that follows, the Landscape Character Types within the study area are described, with a separate section allotted to each Type. Commencing with the key characteristics and the physical and human influences for each Landscape Character Type, the geographically unique Landscape Character Areas that occur within them are then described. Following on from this, an evaluation of each of the Landscape Character Types is provided commencing with a review of the 'Positive Landscape Feature of Significance', and the 'Forces for Change' that are relevant to the type. After this, statements summarising the overall 'Condition' and 'Strength of Character' of each type is given and finally, the 'Inherent Landscape Sensitivities'.

Section 11 of the report provides a **Glossary** of key terms and **Abbreviations**, followed by **Section 12**, **Core References** and **Section 13, Acknowledgements.**

REVIEW OF EXISTING LANDSCAPE CHARACTER ASSESSMENTS 2.0

2.1 Introduction

This section commences with a review of the national level of landscape character assessment and summarises the Character of England and National Landscape Typology that underpins all Landscape Character Assessments across the country. It then summarises the most recent landscape character assessments that have been undertaken within the CWP area.

The review has provided a basis for comparison and cross reference of the range of existing character type and area classifications, their boundaries and names, and the scale of the assessments. For clarification, these are summarised in *Table 1*.

The intention has been to integrate these adjacent assessments, and share contiguous boundaries and names where appropriate to the CWP. As the succeeding review reveals, however, a range of terminology and boundary delineations has been adopted by the various authorities that extend across the Cotswold Water Park. As a result, it has not always been possible to achieve full correlation between all the assessment findings.

2.2 National Level Assessment and Context

2.2.1 The Character of England

The former Countryside Commission, in conjunction with the former English Nature and English Heritage, produced a map of England entitled *'The Character of England: landscape, wildlife and natural features'*. This brought together English Nature's Natural Areas (Figure 3) and the Countryside Commission's Countryside Character Areas into a composite map of Joint Character Areas (JCAs) (Figure 4). These JCAs and the supporting descriptions provide the top tier of the hierarchy of Landscape Character Assessment in England and a national context for regional and local landscape and ecological assessments.

The character of the landscape is depicted at a national scale. Computer based statistical analysis was combined with landscape character assessment to identify 159 character areas based on physical and human influences. In addition to this, a series of countryside character descriptions were developed for each of the character areas.

The following Countryside Character Areas (CCAs) extend across the Cotswold Water Park, and are described in Countryside Character Volumes 7 and 8[2].

- 107, The Cotswolds;
- 108, Upper Thames Clay Vales; and
- 109, Midvale Ridge

2.2.2 National Landscape Typology for England[3]

The former Countryside Agency prepared a national landscape typology for England, which divides the 159 CCAs into distinct and relatively homogenous tracts of land. The National Landscape Typology for England study analysed the three strongest determinants of landscape character (physiography, land cover and cultural pattern) through national GIS data sets in a series of complex overlays. The resultant output is a map of 120 generic Landscape Character Types (LCTs) which exist within the framework of the CCAs. Each LCT is allocated a three-letter code, which represents a description of physiography, land use and cultural pattern.

Based on this initial classification of landscape types, the LCT and CCA maps were combined as part of the national study, to identify geographically distinct Landscape Character Type Areas (LCT Areas). Through this process 587 LCT Areas were identified across the country. Full details of the national typology project, and the methods of assessment used, are contained within two reports[4] prepared by consultants on behalf of the former Countryside Agency. These describe and map the National LCT Areas in detail. The distribution of the Joint Character Areas and National Landscape Types for the CWP and wider context area are shown on Figure 4.

2 Countryside Character: Volume 7: South-East and London, and Volume 8: South-West; Countryside Agency, 1999

3 National Countryside Character Decision Support Database, Technical Report, Countryside Agency, 2002

4 National Countryside Character Decision Support Database, Data Report, and Map Report – South West Volume, Countryside Agency, 2001

2.0 REVIEW OF EXISTING LANDSCAPE CHARACTER ASSESSMENTS

2.3 County Assessments within the Cotswold Water Park Study Area

Landscape Character Assessments have been completed by all of the County Councils that extend across the CWP study area. These are briefly described below, together with their completion date, and hierarchy of typology. Table 1A provides a comparative review of the landscape character types and areas that each of the studies identified. For brevity, the schedule of the types and areas listed in the Table are confined to those that occur either within the study area, or lie in close proximity.

2.3.1 Gloucestershire

In February 2002 the Countryside Agency, in partnership with Gloucestershire County Council and the Forest of Dean District Council, commissioned Landscape Design Associates (now LDA Design) to undertake a desk based Landscape Character Assessment for Gloucestershire. A principal requirement of the assessment was to use GIS to develop a digital landscape typology for the county, with reference to the former Countryside Agency's Character Map of England, the National Landscape Typology for England, and the Agency's *'Landscape Character Assessment Guidance for England and Scotland'*. The national typology was used as a starting point and basis for testing and refining the typology for Gloucestershire. Subsequent to the completion of the draft county typology, the findings of the desk study were used to inform and undertake full LCAs for the Forest of Dean District in 2002, and also the Cotswolds AONB[5] in 2003.

In 2004 LDA Design was commissioned to complete the Landscape Character Assessment for Gloucestershire[6] covering those areas that lay outside the Forest of Dean District and Cotswolds AONB, and which had not therefore been subject to a field based verification and full Landscape Character Assessment process. This included the southern section of the county within the Upper Thames Valley and which also encompasses the northern section of the CWP.

The Gloucestershire Landscape Character Assessment[7] was completed in January 2006. Three Landscape Types were identified in the Upper Thames section of the study. These comprised the River Basin Lowland, the Cornbrash Lowlands, and the Dip Slope Lowland. A number of Landscape Character Areas were classified within each of these Landscape Types.

The Dip Slope Lowland that extends from Kemble eastwards to the Coln Valley was subdivided into the Kemble Dip Slope and The Ampneys Character Areas. South of the Dip Slope Lowland, the east west aligned Cornbrash Lowlands were subdivided into the Pool Keynes and Ewen Lowlands to the west; the Driffield Lowlands in the central zone; and the Southrop Lowlands on the eastern side of the county. Finally, the broad swathe of River Basin Lowland along the southern perimeter of the county was also divided into three Character Areas. This division was influenced by the very convoluted nature of the county boundary which separates the land into three discrete areas. However, the divisions also correlate with three distinctive and separate zones of the CWP. These Character Areas were classified as Somerford Keynes to the west, Down Ampney in the central section, and Fairford and Lechlade in the east.

2.3.2 Wiltshire

The Wiltshire Landscape Character Assessment[8] was undertaken by Land Use Consultants for Wiltshire County Council and completed in 2005. The study identified 16 Landscape Types, four of which are located within the study area. The majority of the Wiltshire section of the study area comprises the Open Clay Vale Landscape Type, and extends across the Thames Valley bottom. Other Landscape Types occupy much smaller areas and comprise a very small section of the Limestone Ridge Landscape Type that extends across Lus Hill, the north-eastern section of the Rolling Clay Lowland Landscape Type to the south of the Thames Clay Vale from the south-west of Cricklade and to the western side of the former Cricklade Airfield, and a very small section of the Limestone Lowland Landscape Type to the south-west of Somerford Lakes.

5 Cotswolds AONB Partnership, Cotswolds AONB Landscape Character Assessment, Landscape Design Associates, 2004

6 Gloucestershire County Council and the Countryside Agency, County Scoping Study and County Typology, Landscape Design Associates, 2002

7 Gloucestershire County Council, Gloucestershire Landscape Character Assessment for The Severn Vale, Upper Thames Valley, Vale of Moreton, and Vale of Evesham, LDA Design, 2006

8 Wiltshire County Council, Wiltshire Landscape Character Assessment, Land Use Consultants, 2005

These Landscape Types are all represented by Landscape Character Areas in the CWP. Within the Open Clay Vale there is no division and the entire area is termed as the Thames Open Clay Vale Character Area. The Limestone Ridge is classified as the Swindon – Lyneham Limestone Ridge Character Area. The Rolling Clay Lowland is classified Minety Rolling Clay Lowland Character Area. Finally, the Limestone Lowland is termed the Malmesbury - Corsham Limestone Lowlands Character Area.

2.3.3 Oxfordshire

The Oxfordshire Wildlife and Landscape Study (OWLS)[9] three year demonstration project was completed in 2004. Its principal aim has been to explore the relationship between landscape character and biodiversity and to produce a strategic framework for decision making. The landscape assessment was based on the National Typology of Landscape Description Units (LDUs) derived from the national datasets. The Regional Character Areas defined within Oxfordshire were subdivided into LDUs derived from GIS mapping. The field survey and characterisation process then identified Landscape Types and Local Landscape Character Areas.

Seven Landscape Types are located within the land on the western perimeter of Oxfordshire that lies within the Cotswold Water Park study area and the Upper Thames Valley. The most extensive Types comprise Lowland Village Farmland, Vale Farmland, Terrace Farmland and River Meadowlands. This latter type comprises the low lying land along the margins to the River Thames and River Leach.

2.4 District and Borough Assessments within the Cotswold Water Park Study Area

Landscape Character Assessments have been undertaken by all of the District and Borough Councils whose administrative area extends across the study area. The Assessments are briefly described below, together with their completion date, and hierarchy of typology. Table 1B provides a comparative review of the landscape character types and areas that each of these studies identified. As with the review of the county studies, and for brevity, the schedule of the types and areas listed in the Table are confined to those that occur either within the Cotswold Water Park study area, or lie in close proximity.

2.4.1 Cotswold District[10]

In 2000 Cotswold District Council commissioned WHITE Consultants to undertake an assessment of the landscape character of those parts of the District that lie outside the Cotswolds AONB. The study informed the review of the District-wide Local Plan, and adopted the guidance in the Countryside Agency's Interim Landscape Assessment Guidance, 1999. The study included the area that extends into the northern section of the Cotswold Water Park and was named as the Cirencester/Upper Thames Valley area. The landscape types that were identified within or in close proximity to the study areas comprised: Cotswold Lower Dipslope; Lower Dipslope Valleys; Dipslope/Thames Valley Transition; and Thames Valley. Geographically specific landscape character areas were classified within these landscape types.

2.4.2 North Wiltshire District[11]

(North Wiltshire District will cease to exist from April 2009 and form part of the Unitary Authority of Wiltshire Council)

A Landscape Character Assessment was undertaken in 2004 by WHITE Consultants for North Wiltshire District. The study identifies a range of Landscape Types. Those extending across the Cotswold Water Park study area comprise Alluvium River Terrace Farmland; Lowland Clay Farmland; and Lowland Limestone (Forest Marble) Farmland.

Within the CWP, two separate areas of Alluvium Terrace Farmland are identified and each classified as Thames Valley Floor Landscape Character Area. To the south, the Lowland Clay Farmland is termed the Thames Valley Lowland. Finally, the Lowland Limestone (Forest Marble) Farmland is classified as the Shilston Dipslope Lowland.

2.4.3 Swindon Borough[12]

Swindon Borough undertook a Landscape Character Assessment in 2001 to inform the Swindon Borough Local Plan. The findings are summarised in a Supplementary Planning Guidance (SPG) document that was Adopted in December 2004 and forms part of the Revised Deposit Draft to the Local Plan. The Assessment identified eight Landscape Character Areas across the Borough. Two of these Character

9 Oxfordshire County Council, Oxfordshire Wildlife and Landscape Study, 2004

10 Cotswold District Council, Assessment of Landscapes outside of the Cotswolds AONB, WHITE consultants, 2000

11 North Wiltshire District Council, North Wiltshire Landscape Character Assessment, WHITE consultants, 2004

12 Swindon Borough Council, Draft Landscape Assessment of the Borough of Swindon, 2001

Areas extend into the south-eastern section of the CWP, comprising the Thames Vale and the Mid Vale Ridge. Following a description of the Key Characteristics of each of the Character Areas, the SPG also sets out Landscape Guidelines, including Development Considerations.

2.4.4 West Oxfordshire District[13]

West Oxfordshire District Council commissioned Atlantic Consultants in 1997 to undertake a Landscape Character Assessment of the district. The main aims of the Assessment were to increase understanding of the landscape resources of the district, assist with policy formulation and development control, and target resources for enhancement and management. The study drew from the former Countryside Commission guidance document CCP423, and was completed in 1998.

Located within the Regional Character Area of the Upper Thames Clay Vales, only a very small section of West Oxfordshire District lies within the Cotswold Water Park study area, at the extreme eastern limit. The assessment identified two Landscape Character Areas, comprising the Western Thames Fringes and Bampton Vale Character Areas, and within these broader Character Areas a number of local Landscape Types. In the case of the Western Thames Fringes, these comprise floodplain wetlands adjacent to the River Leach, and further east, floodplain pasture, and semi-enclosed flat vale farmland. Only a very limited section of the Bampton Vale extends into the Cotswold Water Park study area, to the north of Little Faringdon. Here, the landscape type is confined to semi-enclosed rolling vale farmland where a low but locally distinctive and partly wooded hillock is evident.

2.4.5 Vale of White Horse District[14]

A Landscape Strategy undertaken by The Vale of White Horse District identified four Landscape Zones in the district. One Landscape Zone and one of its component sub types borders and extends into the south-eastern extremity of the Cotswold Water Park study area, in the vicinity of the hamlet of Buscot Wick and extending to the River Coln. This Zone 1 is described as the Thames Valley and Corallian Ridge (comprising the Golden Ridge and Oxford Heights sub type). Following the adoption of the Landscape Strategy as Supplementary Planning Guidance in 1999, the District Council subsequently published its Local Plan 2011 in July 2006. In this more recent document, the findings of the Landscape Character Assessment are presented in a simplified form and Zone 1 is now classified as The North Vale Corallian Ridge.

2.5 Summary and Conclusion

The preceding review of the current Landscape Character Assessments within and on the perimeter of the CWP study area demonstrates that there is a wide range of classifications, terminology and scales of assessment. Tables 1A and 1B bring these findings together and further demonstrate the numerous character type and area terms that have been defined either adjacent to each other, or overlaying at different scales from county down to district and borough studies. Thus, the principle of 'nesting' of assessments, with common boundaries retained at each scale of assessment but further sub-divided at the more detailed level, has not always been achieved. Nevertheless, as each of these studies pertains to a specific administrative area, they can function independently and without conflict occurring through any discrepancies or boundary anomalies that may be present.

Despite these differences in terms and boundary details, there is nevertheless a broad correlation between the assessments, particularly in the delineation of the Open Clay Vale of the Upper Thames river basin, the Limestone Lowlands that merge into the Cotswolds Dip Slope, and the Rolling Clay Vale / Lowland Clay Farmland to the south of the Thames Vale. The boundary of the Limestone Hills formed by the Corallian Limestone Ridge is also generally compatible between the county and district authorities' assessments.

This CWP Landscape Character Assessment has examined these various classifications and brought them together to seek a common thread that functions across the range of administrative boundaries and authorities that form part of the Water Park. However, the study has also provided an opportunity to determine a Landscape Character Assessment that is CWP focused and recognises the particular characteristics of this distinctive and dynamic landscape. The Landscape Character Types and Areas that have been identified are introduced and described in more detail in Section 4.

13 West Oxfordshire District Council, West Oxfordshire Landscape Assessment, Atlantic Consultants, 1998

14 Vale of White Horse District Council, Vale of White Horse Adopted Local Plan , November 1999 – Supplementary Planning Guidance, Landscape Strategy, 2000

2.0 REVIEW OF EXISTING LANDSCAPE CHARACTER ASSESSMENTS

Table 1: Review of current Landscape Character Assessments within and contiguous with the Cotswold Water Park

1A: County Council and Cotswolds AONB Landscape Character Assessments

County	Gloucestershire County Council LCA, 2006	Wiltshire County Council LCA, 2005	Oxfordshire County Council Oxfordshire Wildlife and Landscape Study (OWLS), 2004
Summary of Assessment Hierarchy	**County Landscape Character Types and Areas**	**County Landscape Character Types and Areas**	**Regional Character Areas** (RCAs) Landscape Description Units Landscape Types and Local Landscaper Character areas
Landscape Character Types and comparison of LCA terminology	Landscape Character Types and Areas within and on the northern boundary of the CWP Landscape Type: River Basin Lowland Landscape Character Areas: Somerford Keynes Down Ampney Fairford and Lechlade Landscape Type: Cornbrash Lowlands Landscape Character Areas: Pool Keynes and Ewen Lowlands Driffield Lowlands Southrop Lowlands Landscape Type: Dip Slope Lowland Landscape Character Areas: Lower Churn Valley Lower Coln Valley	Landscape Character Types and Areas within and on the southern boundary of the CWP Landscape Types Open Clay Vale Landscape Character Area: Thames Open Clay Vale Landscape Type: Limestone Ridge Landscape Character Area: Swindon-Lyneham Limestone Ridge Landscape Type: Rolling Clay Lowland Landscape Character Area: Minety Rolling Clay Lowland Landscape Type: Limestone Lowland Landscape Character Area: Malmesbury- Corsham Limestone Lowlands	RCAs on the eastern perimeter of CWP Cotswolds Upper Thames Vale Landscape Types on the eastern perimeter of CWP and Local Landscape Character Areas Landscape Type: River Meadowland Landscape Character Area: Thames Open Clay Vale Landscape Type: Vale Farmland Landscape Character Area: Langford Brook Landscape Type: Lowland Village Farmland Landscape Character Area: Langford Landscape Type: Terrace Farmland Landscape Character Area: Buscot to Kelmscott Landscape Type: Estate Farmlands Landscape Character Area: Carterton Landscape Type: Wooded Estatelands Landscape Character Area: Buscot Park Landscape Type: Farmland Hills Landscape Character Area: Little Farringdon Hill

2.0 REVIEW OF EXISTING LANDSCAPE CHARACTER ASSESSMENTS

1B: District and Borough Council Landscape Character Assessments

Authority	Cotswold District Council	North Wiltshire District Council	Swindon Borough Council	West Oxfordshire District Council	Vale of White Horse District Council
Name, Status and Date of LCA	**Assessment of Landscapes outside the Cotswold AONB, 2000; WHITE consultants for CDC Approved as SPG**	**North Wiltshire LCA, 2005 WHITE consultants for NWDC**	**Swindon Borough LCA, Adopted as SPG, Swindon Borough Local Plan, 2001 and Revised Deposit Draft, December 2004**	**West Oxfordshire Landscape Assessment, 1998; Atlantic Consultants for WODC**	**Landscape Strategy SPG, Vale of White Horse Adopted Local Plan, 1999 and Vale of White Horse Local Plan 2011, Revised Deposit Draft, June 2006**
Principal Names and Typology	Landscape Character Types: Cotswold Lower Dipslope Landscape Character Areas: Kemble Dipslope; Cirencester North Fringe Dipslope; Ampney to Southrop Dipslope Landscape Character Types: Lower Dipslope Valleys Landscape Character Areas: Churn Valley Coln Valley Landscape Character Types: Dipslope / Thames Valley Transition Landscape Character Areas: Ewen Cirencester Southern Fringe Lower Churn Valley Driffield & Meysey Hampton Landscape Character Types: Thames Valley Landscape Character Areas: Cotswold Water Park – Western Section; Down Ampney; Fairford Airfield and Cotswold Water Park East; Kempsford and Lechlade; Lechlade Water Park;	Landscape Character Type: Lowland Limestone (Forest Marble) Farmland Landscape Character Area: Sherston Dipslope Lowland Landscape Character Type Alluvium River Terrace Farmland; Landscape Character Areas: Thames Valley Floor Landscape Character Type: Lowland Clay Farmland; Landscape Character Areas: Thames Valley Lowland	Landscape Character Areas: Thames Vale Mid Vale Ridge	Landscape Character Areas adjacent to the CWP: Each of the LCAs is subdivided into local landscape types as detailed below. Landscape Character Area: Bampton Vale Landscape Type: Semi-enclosed rolling vale farmland Landscape Character Area: Western Thames Fringes Landscape Types: Floodplain pasture; Floodplain wetlands; Semi-enclosed flat vale farmland;	Landscape Zones: Zone1: The North Vale Corallian Ridge

3.1 Establishment of the Cotswold Water Park

The CWP was established in 1967, in recognition of the growing significance and opportunities presented by the many lakes that had been created through the restoration of the extensive areas of former gravel working within the Upper Thames Valley. The Cotswold Water Park Joint Committee was also formed, and included representatives from the Local Authorities with administrative responsibility for the area covered by the Water Park. A joint resolution by the Joint Committee confirmed that:

'the area should become a water park serving the interests of aquatic sportsmen, naturalists and others who wish to enjoy in a general way a stretch of inland water'.

This affirmed the commitment to the management of a process of landscape change that had been evolving for some years as a consequence of the extensive mineral extraction that had taken place within the area and the widespread restoration to inland lakes. These changes have developed within a pattern of rural settlements and farmholdings supporting an agricultural regime that has existed across the area for many centuries, long before the Water Park was established, and provide a reference of the previous character of the landscape.

Since 1967, the development of a wetland landscape and associated uses has continued to the present time. With mineral reserves still available across the area, particularly in the central part of the CWP, the process of change is set to continue for some decades. However, the potential location, extent and form of future extraction has to be balanced against other requirements. These include environmental issues, notably the need to protect and enrich the area's landscape, biodiversity and heritage resource; the conservation of water quality; meeting the continuing and potentially increasing demand for recreation, sport and leisure facilities and tourism pursuits across the Water Park; and also taking careful account of the quality of life and economic opportunities for local inhabitants and creation of sustainable communities.

3.2 The Cotswold Water Park Vision and Implementation Plan

Introduction and Context

Since the establishment of the CWP, a succession of Strategies have been undertaken in order to address the many and evolving issues associated with the management of the area. The most recent study was commissioned in 2006 when the Joint Committee appointed Scott Wilson to undertake a Strategic Review and Implementation Plan for the CWP, including the preparation of a broad Masterplan, and a Vision for the future of the area.

The intention of the study, which was completed in July 2008, was to reflect the views of the various sectors that are active within the Park and particularly the 20,000 people who live within the Park's 40 square miles

The new Strategic Review was commissioned in the context of the Joint Committee's recognition of:

- the need for a greater understanding of the national and international significance of the conservation value of the areas identified in the CWP Biodiversity Action Plan;
- the unfulfilled sporting role and growing tourism potential of the Water Park;
- the continuing lack of status or profile at national or regional level,

The study therefore needed to address both the challenges and exciting potential arising from these interrelated issues, but also in the context of integrating an evolving and changing landscape character and the creation of a strong sense of place.

Project Stages

The study was undertaken in three stages. Stage I presented the findings of the initial investigations in relation to the baseline information for the study area and the identification of the key issues affecting the CWP. It also provided a basis for option formulation for the future direction of the study.

Following on from this, Stage II considered the Key Issues in greater depth together with an evaluation of the options. It also examined the interrelationships between the different users and their needs and aspirations within the CWP.

Stage III presented a Vision and a Strategic Framework for the CWP. A comprehensive Implementation Plan was also a key output of the Strategic Review and set out a co-ordinated programme of work to be undertaken over a five year period commencing from the adoption of the study, together with longer term actions.

Public Consultation

The Stage II and III reports were released in January 2008 for wider consultation. This process enabled the rationale for the Vision and Implementation Plan to be introduced and discussed with key stakeholders and existing and potential partners. Workshops with local representatives from both the community and businesses were also held. An online survey form for

completion by all those with an active interest in the Cotswold Water Park and its future development was also provided. The findings of these consultations informed the final reports, which were adopted and published in July 2008.

The Vision

A key principle underpinning the study was that the Vision needed to be both achievable and sustainable whilst also meeting the aspirations of the key stakeholders within the area, which comprise as follows:

- The local community who live and work within the CWP;
- businesses and industry that operate within the CWP including mineral operators and commercial interests linked to tourism and leisure;
- the local authorities, agencies, landowners and farmers, and conservation bodies who are responsible for, or have an interest in, the stewardship of the CWP; and
- visitors to the CWP who utilise its resources.

The study sets out a Guiding Statement for achieving the vision for the CWP, as follows:

'The Vision will be achieved by harnessing the resources and economic activity in the Cotswold Water Park to create a distinctive and sustainable countryside of high environmental value for the benefit of local residents and people working and visiting the area'.

It is notable that the importance of creating a distinctive landscape character and one that is of high environmental value is at the heart of this Statement and Vision for the CWP.

Key Issues and Priorities linked to Landscape Character

The study identified a wide range of key issues and priorities that need to be addressed, a number of which are particularly pertinent to or have the potential to influence the changing landscape character of the study area. In summary these issues comprise:

- The **landscape character** of the CWP has changed and this change will continue in the future. The lakes are an important and significant landscape feature that has given a new identity as a water park. The surrounding areas, however, lack a unifying landscape character that celebrates the CWP.
- The **communities and settlements** both within and in the vicinity of the CWP are an integral part of landscape character of the area and provide points of identity and a sense of place. However, many of the core settlements are not presently integral to the CWP experience and do not currently provide places of interest information or potential for economic exchange with a CWP focus.
- The **biodiversity** importance of the CWP is recognised at a regional level, and also includes sites of national and international importance. The Cotswold Water Park Biodiversity Action Plan (BAP) details priorities for species and habitat creation and protection and is actively seeking to establish the Water Park as a premier area for nature conservation.
- The location and provision of **leisure and recreation** facilities is limited, disjointed and spatially fragmented. Furthermore, there is lack of a meaningful leisure network that links all parts of the CWP.
- The **hydrology** of the area is complex and is both an enabler and a potential constraint on the future development of the CWP. Further investigations will predict and guide the management of key hydrological processes notably flood risk, low river flows, and leaching issues which in turn are affected by mineral activities and increased built development. The longer term effects of **climate change**, both locally as well as at a broader level, must also be taken into account in the development of hydrological models and solutions.
- **Agriculture** is a key land use that can make a positive contribution to the future vision for the CWP. Although the overall area of agricultural land will gradually diminish as a consequence of further mineral extraction, its physical pattern, extent and land management practices are crucial factors in influencing the landscape character of the CWP. The changing nature of these practices are directly linked to the economic viability of agriculture and the effects of changing market conditions as well as a wide range of unpredictable environmental and other factors such as animal disease and floods.

- The CWP has a rich **historic and archaeological heritage** but it is not widely celebrated. There are opportunities to establish a better understanding of the heritage resource through interpretation of the archaeological findings that have been recorded over the last 30 years. From this a clearer understanding will emerge of the importance of how historic character is an intrinsic part of the wider landscape character.
- The location and sequential ordering of **mineral extraction** sites is not coordinated, in policy terms, between the two adjacent Mineral Planning authorities. This also affects the opportunity to achieve a cross boundary approach to development planning decisions at both a strategic and local level. However, the process of extraction and subsequent restoration of these sites is a key enabler in achieving the Vision and aspirations for the future development of the CWP. In particular, restoration processes can deliver an enhanced landscape character linked to strategic guidelines and development opportunities in relation to biodiversity, sports and tourism.

3.3 The Changing Landscape Character of the Cotswold Water Park

Landscape character is constantly changing in response to natural and human influences, and this dynamic nature is particularly evident in the CWP. The exploitation of the sand and gravel deposits within the Upper Thames Valley has been a potent force for change.

Prior to the excavation of the mineral reserves, the previous landscape character principally comprised floodplain pastoral farmland and riverine habitats, together with areas of arable land. With the progressive restoration of the areas that have been subject to mineral extraction, this riverine and pastoral landscape has been radically altered and replaced by a network of numerous man made lakes contained by vegetation ranging from mature and semi-mature woodlands and scrub to emerging juvenile areas of planting and marginal aquatic and reed bed vegetation associated with the lake edges. The extensive areas of wetland landscape are a dominant influence on landscape character. However, a mosaic of pastoral and arable farmland also threads through the designated CWP and wider study area that forms the setting for the areas of inland water. Where no mineral extraction has taken place is evidence of the landscape character that would have existed prior to mineral extraction. The simple, quiet rural character that prevails in these areas provides a foil to the busier extraction and water focused activities of the core areas of the CWP.

3.4 Introduction to the Review of the Physical and Human Influences on the Landscape Character of the Cotswold Water Park

The unique character of the CWP landscape has been shaped by a complex interplay of physical and human influences. The underlying solid and superficial geology is the overarching factor that has determined the physical form of the landscape, and also influenced the response to the effects of natural processes at both a macro and micro level, as well as the hydrological system, the types and pattern of soils and the vegetation cover. The effects of human activities on this physical form have resulted in the distinctive pattern of land use and settlement that has evolved over centuries of occupation and defining the historic landscape character of the area. While the biodiversity character and vegetation cover is closely linked to the inherent physical attributes, and the effects of climatic conditions that favour particular vegetation associations, the land management activities are also a key influence, notably the pattern and type of farming activities. However, the economic use of the area has been an important influence on the ecological character, particularly in the past half century. New habitats and vegetation associations have emerged as a consequence of man's activity within the study area, partly as a result of changes in farming but principally through the creation of a mosaic of wetland habitats associated with the widespread mineral extraction and restoration to lakes.

An understanding of these interrelated influences is central to the assessment process and provides the basis on which to define and describe the landscape character of an area. It also provides the foundation for identifying the Forces for Change which are integral to the process of informing the development of a Landscape Strategy to guide the evolving character and future management of the area.

In Sections 4 to 8 that follow, a range of topics relating to the physical and human Influences on the CWP are examined.

Section 4 describes the physical influences on the study area, and examines the geological structure and its interrelationship with topography, soils and the hydrological system. This unique combination of physical attributes has provided the foundation for man's subsequent activities and use of the area which in turn have influenced the evolving landscape character.

3.0 THE COTSWOLD WATER PARK: AN INTRODUCTION

Sections 5 to 8 consider the principal human influences on the CWP commencing with the historical development in Section 5. The sequence and phases of human activities and occupation that have shaped the historic landscape character of the area are described, together with the evolving patterns of land use and cultural character, and notable heritage features.

The CWP supports a rich biodiversity. This is partly a result of the intrinsic physical attributes of the area, but land management activities over the many centuries, including the recent period of mineral extraction, have contributed to a more diverse and enhanced biodiversity. Section 6 provides an overview of the ecological character of the CWP and how it relates to the area's physical and landscape character and the changes arising from the mineral extraction activities and after uses.

Since the establishment of the CWP in the late 1960s, the area has become an increasingly important focus for leisure and recreation and is a notable tourism destination. Section 7 examines the principal leisure and recreational influences on the landscape.

The CWP supports a population of around 20,000 people who live in a wide range of settlements, farms and individual dwellings across the area. Many of these settlements are of historic importance and contribute to the wider landscape character of the area. Section 8 reviews the built character of the CWP and describes the settlement pattern and the range and types of buildings.

This section reviews the physical influences on the CWP and how these have shaped the area's unique landscape character. It begins with a description of the underlying solid rock strata and the overlying superficial deposits. The physical manifestation of the influence of the underlying geology and the effect on landscape character is then described as represented by the pattern of soil types, the topography of the area and the hydrological system.

4.1 Geology and Soils

4.1.1 Introduction

The geological structure of the CWP, and the succession of rocks, including the superficial deposits, is fundamental to the form and structure of the area. While the underlying solid geology is responsible for the principal form and elevation of the landform at the macro level, the differential responses of the various rock strata to the effects of erosion and weathering processes have determined the more detailed form of the landscape, influenced drainage and soils, and the subsequent patterns of vegetation, land cover and land use.

The geology of the Cotswold Water Park is illustrated on Figure 5: Superficial Geology and Figure 6: Bedrock Geology.

Within the CWP study area the geological structure is simple with the geological range composed entirely of sedimentary rocks of the Jurassic period. The geological strata have a south-easterly incline with progressively younger rock formations outcropping towards the south.

The deposition of superficial material during the most recent Quaternary Period masks extensive areas of the CWP. These deposits are particularly important, not only in the subtle moulding and modifying of the landform at a local scale, but also through the provision of a vital economic resource and effect on soil types and historic and current farming activities.

4.1.2 Jurassic Period (208 – 146 Ma[1])

The Cotswold Water Park is underlain by rocks deposited during the Middle and Upper Jurassic Period. These were laid down between 146 and 180 Ma at a time when the area that is now the centre of England was submerged beneath a vast but relatively shallow ocean. The ocean was surrounded by islands, areas of land that now comprise uplands in Cornwall, Devon and the Mendips. To the south-east stretched a landmass linking the London area and East Anglia to a large continent (Hyrcinia). The sedimentary rocks of the Cotswolds and proto river basin of the Thames were formed in the subtropical shallows that existed on the fringes of this ocean, with mud, pebbles, broken shells and fossilised tissue laid down to form an elaborate series of clays and limestone.

The northern and western perimeters of the study area are underlain by the Forest Marble and Cornbrash Formations of the Middle Jurassic Period. These are the youngest rock units in the Great Oolite Group and consist of bands of limestones and mudstones in the case of the Forest Marble and a coarse crumbly limestone for the Cornbrash. These two rock formations are softer and more easily weathered than the harder Oolitic Limestones to the north that form the rising slopes of the dip slope of the Cotswolds massif. Nevertheless they are more resistant than the even softer heavy clays that underlie the Thames Vale. Within the study area the Forest Marble and Cornbrash outcrops are represented by a gently undulating lowland landscape at the transition with the more extensive and flatter vale of the Upper Thames.

The Cornbrash is succeeded by a narrow outcrop of the sandy and silty clay of the Kellaway Beds which in turn pass under the great clay sequence of the Upper Jurassic. The extensive outcrop of the softer and heavy blue-grey Oxford Clay is the oldest of this sequence and lies at the transition between the Middle and Upper Jurassic. The silty clay and mudstone formations of the Oxford Clay is the most extensive rock outcrop within the study and has been progressively eroded by the Thames and its tributaries to form a broad, low lying and very shallow sloping river basin.

Beyond the Oxford Clay vale and to the south-east, a limited outcrop of the Upper Jurassic Corallian Limestone extends into the study area in the form of a small outlier of the Stanford and Coral Rag Formations. This outlier is part of a more extensive linear curving band of Corallian Limestone that extends north-east to south-west through Oxfordshire and Wiltshire. Its superior resistance to erosion has resulted in a prominent ridge and steep, mainly north-west facing scarp slopes that define the south-eastern edge to the study area. The Coral Rag is particularly notable for its use as a local building stone.

1 Ma : Million years ago

4.1.3 Cretaceous Period (145 to 65 Ma) and Tertiary Period (65 to approx 2 Ma)

Although rock units of the subsequent Cretaceous and Tertiary Periods are not represented within the study area, these were periods of intense tectonic activity resulted in the uplifting of the Jurassic strata followed by subsequent periods of erosion and marine transgression. Further tectonic activity occurred within the Tertiary period but by the late Tertiary the broad geographical pattern that is present today, both regionally and nationally, was established following considerable erosion during the 60 million years of the Tertiary Period.

4.1.4 Quaternary Period (approx 2 Ma to present)

The Quaternary Period is associated with repeated cycles of temperate and cooler climates and in the last 0.5 million years, during the Pleistocene epoch, cyclical episodes of glaciations. The successive advances and recessions of ice were interspersed with long intervals of milder climate during the interglacial stages. While glaciers never extended across the CWP or indeed the Cotswolds to the north, the severe climate would have led to tundra conditions and only a limited vegetation cover (sedges, lichens and perhaps a few dwarf birch). Glacial meltwaters during the onset of the milder periods led to violent torrents of water, which carved out deep valleys within the more elevated areas of the Cotswolds on the northern fringe of the study area.

Notwithstanding the urgency of addressing the current effects of human activities in generating climate change, at a geological time span it is generally accepted that at present we are in an interglacial period which started around 10,000 years ago and that based on past cyclical episodes we may be heading for another glaciation in about 5,000 years time.

The extensive drift deposits that overlay and mask the solid geology within the CWP are of particular importance due to their effect on the local landform and also their economic value. These are principally derived from the deposition of materials arising from the erosion and fluvial action of the Thames and its tributary rivers notably those flowing across the Cotswolds. The geological activities during the Pleistocene and current Holocene epochs are also important in this process as materials were deposited from the melt waters from the retreating glaciers in the successive post glacial periods.

These processes have created four river terraces representing separate periods of deposition. As the river terrace deposits are principally derived from the erosion of the Jurassic Limestones to the north and west they are rich in mineral and gravel deposits. They mainly comprise sub rounded calcareous (Oolitic) limestone, quartz, and quartzite pebbles with coarse quartz with limestone sand. With their calcareous composition, these differ from any other sand and gravel resources that are present across the UK. The deposits within the four terraces vary in depth from a few centimetres but are generally from 2.0 to 6.0 metres.

In addition to the terraces of sand and gravel, broad areas of alluvial deposits are present along most of the river valleys, but are particularly extensive across the broad river basin of the Thames. This alluvium is generally a thin veneer varying from 300mm to 1.5 metres depth which is a further economic benefit as it limits the depth of excavation required to expose the underlying mineral resource.

4.2 Soils

The pattern of soils across the Cotswold Water Park is closely linked to the underlying geology. In general, soils are mainly alkaline in nature and fairly well drained where they overlay the underlying limestones. In contrast, however, heavier and seasonally wet clay soils are predominant within the Oxford Clay Vale.

On the northern and western fringes of the study area, the soils derive from the succession of limestone and the mudstones of the Forest Marble Foundation which in turn dip beneath the rubbly Cornbrash Limestone to the south and east. With the variable nature of the Forest Marble, soils vary from shallow clay or loam over the limestone bands to deep clay on the mudstones. The Cornbrash Limestone is overlain by a brown marl that yields a well drained soil that is particularly well suited to arable production. William Smith, who is often referred to as the ‘Father of Geology’, first introduced the term ‘Cornbrash’ in the 18th century in recognition that the fields on this rock formation, and hence soil type, grew good corn.

Within the broad, almost flat and low lying expanse of the Upper Thames Vale the soils vary according to whether the Oxford Clay and Kellaways Beds are exposed or have been masked by superficial deposits of river terrace deposits and alluvium. Heavy and seasonally wet deep clays are characteristic of areas directly overlying the Oxford Clay and the limited exposures of Kellaways Beds that occur to the north of Latton. Within the Kellaways Beds pockets of Kellaways Sand also occur which locally yield areas of freer draining soils contrasting with the generally deep and heavy clay soils elsewhere.

While soils overlying the drift deposits are variable, the freer draining sand and gravel river terraces have generally given rise to the development of lighter but seasonally wet loams together with seasonally wet loam to clayey soils on transitional areas. The high

water table in the lower lying areas can lead to impeded drainage and difficult working conditions, rendering it more suitable for permanent pasture. Soils that have developed on the alluvium deposits, particularly where they are within freer draining areas and above the water table, are generally the most fertile and support rich loams.

4.3 Topography

The topography of the CWP closely reflects the underlying solid and drift geology, and the effects of glacial and post glacial erosion and deposition.

The area extends across the broad, shallow vale that follows the east – west alignment of the course of the upper reaches of the River Thames. Within the floodplain of the Thames this low lying area is characterised by almost flat or very shallow slopes at approximately 70m AOD in the east of the Water Park rising progressively to around 90m AOD in the west. There are notable localised variations across the floodplain and wider vale, however, as a series of low hillocks punctuate the floodplain and broader vale. These hillocks generally rise some 10 to 20 m above the surrounding levels and are locally significant in the context of the otherwise flat terrain. Examples include Brazen Church Hill (89m AOD) and the adjacent hill to the south east of Whelford; and Horcott Hill (102m AOD) to the south of Fairford. Further west, there are notable local hillocks at Hailstone Hill (100m AOD) to the north west of Cricklade, and Ashton Down (102m AOD) to the south west of South Cerney, and smaller hillocks at North End (88m AOD) to the north of Ashton Keynes and to the east of Eysey (85m AOD). The majority of these are coincident with upstanding areas of the Oxford Clay outcrop that rise above the surrounding river terrace deposits. Although these higher undulations are generally devoid of development, occasional hillocks and undulations appear to have been the preferred locations for settlement and farms, perhaps to avoid areas of seasonal or periodic flooding at lower elevations. A notable example is the village of Meysey Hampton which has developed across a hillock that rises to 104m AOD and is also associated with the fourth river terrace.

At a more local level within the vale, temporary landforms associated with the gravel extraction activities are evidence of the dynamic nature of this landscape and the changing pattern of gravel pits, storage mounds and screening bunds are notable features that add to the physical form of the landscape.

On the northern side of the Thames Vale the land rises above the floodplain across the progressive exposures of the Cornbrash Limestone and Forest Marble and beyond onto the Great Oolite Series. This gently undulating landscape forms the Dip Slope Lowlands that define the south easterly limit of the Cotswolds with the landform sloping south eastwards towards the Thames and following the general geological grain and dip of the strata. A number of tributaries of the Thames flow across the dip slope and have dissected and folded the landscape to form a series of distinctive and enclosed valleys. However, within the Cotswold Water Park, the sections of watercourses are confined to their lower reaches and their confluence with the Thames, and their valley sides are much shallower and less pronounced.

The southern side of the Thames Vale rises imperceptibly to the south and south east to form a gently undulating landscape but one that is physiographically still part of the broad Upper Thames Clay Vale. Immediately to the south east of the Water Park, however, the land rises more steeply to form the broad elevated ridge of the Corallian Limestone with a north-west facing scarp slope. Beyond but in close proximity to the southern perimeter of Water Park study area, Paven Hill and Hannington Hill rise to 140m and 120 m AOD respectively and form notable skyline features projecting above the otherwise flat landscape of the Vale. Lus Hill (113m AOD), a small outlier of the Corallian Limestone ridge to the south east of Castle Eaton, is a notable local feature. Its distinctive conical form rises above the surrounding levels of 75 – 80 m AOD and extends into the Water Park study area.

This southern section of the vale is also crossed by a series of Thames tributaries but as with the northern tributaries these are flowing within their lower reaches across the Vale and have very shallow sloping or almost flat valley sides and an imperceptible valley form.

4.4 Hydrology

The Cotswold Water Park encompasses not only the rivers and streams within the area, but the numerous water bodies that have been created through the restoration of the gravel extraction areas. The hydrology of the area is closely associated with the underlying geology and the interaction of the many watercourses with the groundwater within the sand and gravel deposits.

4.4.1 The Upper Thames Catchment

The CWP and wider study area is located within the Upper Thames Catchment Area and extends across the broad river basin through which flows the upper reaches of this nationally important river. The source of the Thames is located approximately 4km to the north west of the Water Park. The confluence of many of the Upper Thames tributaries with the main river occurs within the Water Park. Flowing into the Thames from the north and west, these comprise the River Churn,

Ampney Brook, Marston Meysey Brook, River Coln and River Leach. These are all limestone fed rivers as they rise in the Oolitic Limestones within the Cotswolds. To the south, a further series of watercourses flow into the Thames comprising the Swill Brook, Derry Brook, River Key, River Ray, Share Ditch, Byedemill Brook and finally the River Cole. While most of these southern rivers rise on clays, the Swill Brook is also a limestone fed river, rising from springs on the Forest Marble and Cornbrash Limestone Formation.

4.4.2 The River Thames

The River Thames is the prominent and most influential hydrological feature in the Water Park; its erosive and depositional activity having shaped the form of the land and over six thousand years of settlement, agriculture and industry. The story of the Thames can be traced back to over 30 million years ago, when the river was once a tributary of the River Rhine, at a time when Britain was linked to mainland Europe. During and after the last great glacial episode 10,000 years ago, the Thames was 10 times its present size, a high-energy fast flowing river, fuelled by the melting ice sheets carving out the broad valley evident today and cloaking the land in thick deposits of gravel, sand, clay and alluvium. However, this rapid progress slowed down, and by 3,000 years ago the river had settled down into its familiar meandering pattern.

The Thames flows from west to east through the Water Park, from its source to the north of Kemble, to Lechlade at the eastern boundary of the Park from where it continues to the Thames Estuary. It is an inconspicuous watercourse at its source within a gently sloping valley form, and with an ephemeral seasonal flow. To the south of Somerford Keynes the river follows a modified route between large flooded extraction pits. However, east of Ashton Keynes the river's flow is supplemented by numerous tributaries and in the vicinity of Castle Eaton it is readily identifiable as a major river. As it flows further east, the river's flow is greatly increased, and the channel widens and deepens. Around Kempsford the river is sufficiently significant to form the administrative boundary between Gloucestershire and Wiltshire.

4.4.3 Mineral Extraction Effects

The series of lakes throughout the CWP are visible evidence of the high water table of the Upper Thames Valley which has facilitated the natural infilling with water of the gravel pits following the completion of the mineral extraction. Indeed the creation of lakes continues to be the preferred type of post extraction restoration, and has made a significant contribution to the character of the area, its recreational potential and value to wildlife.

Mineral extraction can have a direct impact on flood risk if extraction and restoration are not appropriately planned and managed. For example the risk of flooding can increase through the backfilling of sites with impermeable material, and restoration can also affect topography and the path water takes through the floodplain. However, if used appropriately, mineral extraction can be used as a mechanism for alleviating flood risk.

4.4.4 Canal Network

In addition to the man made system of lakes throughout the Water Park there are two canal routes which form part of the Cotswolds Canal System. Within the study area the route of the now disused Thames and Severn Canal can be traced from Inglesham near Lechlade westwards through to Siddington to the south of Cirencester. However, a number of sections are now missing, notably to the south of Kempsford. The canal is in disrepair but there are longer term proposals to restore key sections of the route. Meanwhile a right of way follows substantial sections of the canal notably to the west of Esey and Eysey Manor and then south of Latton and on to Siddington. A section of the disused North Wiltshire Canal which links Swindon to Cricklade is also located within the Water Park. It joins the Thames and Severn Canal at Latton Junction to the west of North Meadow. Although only intermittent sections of the route remain, it too is scheduled for restoration. This forms part of the wider aspiration to create a recreational 'green corridor' linking Swindon to the Water Park and incorporating the disused Swindon and Cricklade Railway and a range of wildlife sites.

These canal routes are tangible evidence of the importance of the former waterway network that served the Water Park area and the region beyond with its key role in the transportation of materials both locally and for the wider region.

4.4.5 Hydrological Features of the Cotswold Water Park

The hydrological features within the CWP are of fundamental importance to the current and evolving character and use of the area. In addition to the watercourses, the establishment of a network of lakes has created a new wetland character to the landscape. In addition it has enriched the biodiversity interest and introduced a wide range of leisure and recreation activities and opportunities. The hydrology of the area and its long term management is therefore of vital importance to the area. There are, however, areas for concern which highlight the importance of the appropriate management of the hydrological system.

Of particular note is the potential interaction between the high number of lakes and the natural watercourses of the River Thames and its tributaries. It has been suggested that the increased evaporation of the extensive areas of open water may be one of the causes of the low flow problems observed in the local rivers during the summer.

Flood risk is a further area of concern as observed in the events experienced in January and July 2007 that demonstrated the potential susceptibility of some areas to flooding in periods of high rainfall. There is concern that these problems could re-occur and be exacerbated through further mineral extraction and development, as well as future periods of intense rainfall arising from the potential effects of climate change. The need for a co-ordinated approach, bringing together the findings of Strategic Flood Risk Assessments that have been undertaken, will therefore be a priority.

5.1 Introduction

The landscape character of the CWP is in part due to the interaction between humans and their environment. The concept of 'time depth' indicates the successive periods of landscape change, with the modern landscape forming a palimpsest of the earlier periods of occupation, and historic events and processes. These interactions can have a significant effect on the evolution of the landscape.

The CWP area is rich in archaeological remains with evidence of previous periods of human occupation from the Neolithic through to the present time. Archaeological finds within the CWP suggest that the Thames Valley may have first been inhabited some 400,000 years ago during the interglacial periods. A 50,000 year old mammoth skull was also discovered at Ashton Keynes. The permeable gravels of the Thames valley are well known as possessing significant and dense prehistoric settlement, with signs of permanent settlements, farming and cultural activity dating back some 6000 years to the Neolithic period.

An Archaeological Research Resource

The widespread mineral resources within the CWP and the planned process of gravel abstraction has provided a unique ability to undertake comprehensive archaeological investigations and research of the mineral extraction sites in advance of permitted activities commencing. This has resulted in the CWP becoming the most researched part of Britain from an archaeological perspective as a result of the concentration of opportunities to examine past human activities in the area. Oxford Archaeology in particular has undertaken extensive research and interpretation in the area including the excavation of a number of sites in the vicinity of Lechlade, Fairford and Kempsford linked to proposed gravel extraction at the Claydon Pike site; and at Whelford on land currently occupied by the Bowmoor Lake; and to the north of Kempsford at Stubbs Farm, where gravel extraction is currently in progress at 2008. A further area of archaeological excavation took place at the western part of the CWP at the Somerford Keynes / Neigh Bridge area. Covering the western and eastern limits of the CWP, these sites have provided a valuable resource in documenting and describing the way that the land has been used in past periods of occupation.

5.2 Palaeolithic (c.500,000 - 8,000 BC)

Palaeolithic culture flourished during the Pleistocene when glaciations were interspersed with long periods of more hospitable climate. Britain was still joined to the continent at this stage enabling populations to move south during periods of intense cold such as the last glaciation 25,000 – 12,000 years ago and return northwards to follow the herds as conditions became more hospitable. It is known that Palaeolithic communities made forays into the Thames Valley during the last interglacial interlude, and hand-axes have been found near Lechlade-on-Thames.

5.3 Mesolithic (c.8,000 – 4,000 BC)

At the end of the last Ice Age around 8,500 BC the climate improved, resulting in a retreat of the glacial ice sheets that stretched over much of Wales to the west. Sea level rise at this time resulted in the separation of Britain from the Continent. Gradually a cover of woodland would have established across the landscape. At first this would have been dominated by birch although gradually the 'wildwood' of climax species would have developed. This would have comprised a complex mosaic dominated by ash and lime on the upland areas with alder bordering wet and riverine landscapes. Un-wooded areas would have been restricted to particularly steep slopes, rock outcrops or unstable landscapes such as riverbanks. The presence of grazing animals would also have had an effect on the extent and density of the woodland cover, with more open areas and glades also occurring.

Within the Upper Thames Vale and adjacent rising land Mesolithic communities would have established seasonal hunting camps and exploited migrating herds of large herbivores. These nomadic communities, moved through the land in search of food and suitable places to establish temporary settlements. As Mesolithic culture flourished and communities were able to spread out across the landscape they began to alter the natural environment to suit their particular needs. It is believed that areas of the wildwood were burnt to create clearings or glades to encourage and attract grazing animals such as wild cattle and red deer.

Due to the ephemeral nature of their temporary dwellings, little evidence for Mesolithic occupation survives in the archaeological record.

5.4 Neolithic (c.4,000 – 2,500 BC)

The Mesolithic – Neolithic transition saw the gradual change from hunting and gathering towards settled agrarian lifestyles, the shift being likely to represent the adoption of agricultural practices as a result of trade with the continent rather than colonisation of Britain by farming communities. In the archaeological record the Neolithic transition is often identified by the occurrence of new artefact types such as querns, sickles, pottery and polished stone axes. Environmental remains also mirror the change in food procurement practices, with large-scale woodland clearance and the introduction of domesticated sheep, cattle and cereals being identified in the archaeological record.

5.0 HISTORIC DEVELOPMENT

As is the case for the Mesolithic, settlement sites are difficult to identify. However, the activity of Neolithic communities is more readily identified in the landscape as a result of their beliefs and burial traditions, with megalithic and landscape monuments a clear indication of Neolithic activity. The presence of causeway camps, curcus monuments and henges within the CWP study area is testimony to the occupation of the area since the Neolithic period.

It is also considered that The Upper Thames Vale would have been extensively cleared of trees from this period to enable cultivation of the land to support these early sedentary farming communities. The broad vale and interconnecting tributary valleys would also have been likely to have formed important trade and communication routes.

5.5 Bronze Age (c.2,500 – 750 BC)

Metal working technology, along with new types of flint-tool and pottery design, was introduced from Europe at the start of this period. Cereal crops and stock rearing remained the mainstays of the economy, although changes in social organisation were reflected in the increased number of ceremonial and burial sites which many archaeologists now see in the context of ritual landscapes. Burial practices also evolved. The use of cremations and round barrows replacing the chambered tombs and long barrows of the Neolithic.

There is widespread evidence of settlements from the Bronze Age occurring across the CWP area together with finds of a distinctive Beaker pottery relating to burial rites and new technologies that emerged in Britain around 2000-1600.

During the late Bronze Age the deterioration in the climate to colder, wetter conditions forced upland communities to relocate to the lowlands, placing habitable land under increasing amounts of pressure. It may be assumed, therefore, that there was a general migration to lower and more hospitable land, including the Upper Thames Vale, substantiated by the number of Bronze Age settlements that are present in the area from this period.

5.6 Iron Age (c.750 BC – AD 43)

Iron working was one of a series of new technologies introduced to Britain from the continent in the Iron Age period. Population growth led to competition for land and the development of a more territorial society, hillforts and defensive enclosures being clear manifestations of this in the landscape. Hillforts themselves are both defensible and symbolic, occupying strategic and prominent locations for maximum effect.

A single rampart camp, most probably used as a cattle pound or possibly a sheep fold, is located at Radbury Ring to the south-east of Ampney St Peter on the northern margin of the CWP study area. These structures may have represented safe havens for cattle during times of conflict or simply enclosed areas to bring cattle together for trading or feasting purposes. Remains of Iron Age round houses have also been excavated at Claydon Pike and Thornhill Farm.

While little is known about the political or territorial organisation of the area until just prior to the Roman conquest it is believed that one tribe, the Dobunni, occupied the lands stretching from the Upper Thames valley to the Severn.

5.7 Roman and Romano British Period (AD 43 – AD 410)

The Roman invasion was followed by a rapid implementation of centralised administration based on towns and villas, supported by a network of forts. Roman army engineers also built substantial roads with metalled and cambered surfaces to expedite the movement of soldiers, food, equipment and materials. These roads were also exploited as trade and communication routes.

Immediately to the north of the CWP study CORINIVM (Cirencester) developed into a major Roman settlement with the principal Roman roads of Fosse Way, Akeman Street and Ermin Way radiating out from the settlement. A substantial section of the route of the latter road passes through the CWP, as the A419, and is an important and tangible reminder of ancient occupation and communication.

In view of the proximity of CORINIVM there were strong Roman influences on the wider area including the CWP area. The peace and stability offered by centralised Roman administration gave a great prosperity to the wider area and many villas were built. These varied in size and opulence from modest farmhouses to large and impressive country houses. Estates and land holdings surrounding these residences were organised to provide food for the inhabitants of the villa and its workers, but perhaps more importantly to trade in the local urban centres and supply the army, defending the frontiers. The remains of Roman villas have been excavated at Claydon Pike, Latton, Rough Ground Farm and Hannington Wick, demonstrating the wider area beyond Cirencester in which the Romans settled.

The Roman Empire was in decline from the 4th century and after AD 400 the economy is likely to have been almost completely agricultural and rural. By the middle of the 5th century, the Roman armies had left. With much of the infrastructure increasingly falling out of use, local governance had replaced direct Roman rule. For

the majority of those living in the CWP area and beyond, lifestyles would have reverted to something appearing very similar to that of their Iron Age predecessors.

5.8 Saxon Period (AD 410 – AD 1066)

Shortly after the decline of Roman control in Britain, the Angles, Jutes and Saxons began to invade and settle in England. Following gradual incursions into British territories, the battle of Dyrham in 577 ensured the West Saxons had control over the townships of Bath, Cirencester and Gloucester, shortly after extending their control to cover the Cotswolds and the Severn Vale.

Perhaps the most notable landscape features to arise from the Saxon period were churches and monastic sites that were being founded from the end of the 7th century. At a time when the majority of buildings were simple thatched structures, these buildings would have gained a symbolic resonance and marked the permanence of the new religious order.

There are three recorded settlements within the CWP that have Saxon origins comprising Lechlade-on-Thames, Fairford and Cricklade. A Saxon cemetery has been excavated at Fairford, and a further cemetery excavated to the west of Lechlade with extensive Saxon remains and forming part of a 'multi-period' settlement. From an archaeological perspective it is probably the wealthiest site ever excavated in the Upper Thames Valley and revealed thousands of rare or unique objects. The grave goods suggest that the cemetery was in use from the mid or late 5th century until the late 7th century. In addition to Saxon remains, prehistoric remains were also found from the Bronze Age, a series of linear boundaries and structures of late Bronze Age/ early Iron Age date, and evidence of Roman activity.

The town of Cricklade is particularly important, as it was established as a fortified site during the defence of Wessex against the invading Danes. It is considered to be the most intact example of a late Saxon town in Britain with a well defined Saxon street pattern and a traceable course of the former town wall and ramparts.

5.9 Medieval (AD 1066 – AD 1500)

Following the defeat of Harold in 1066 at Hastings, William the Conqueror either killed or dispossessed the majority of English earls and thanes and allocated confiscated lands to his followers. This was to ensure the security of this part of the kingdom, and was part of a wider policy of creating powerful lordships that could provide money and military support to defend against uprisings and invaders, and maintain order over the local population. To achieve this, castles were built at a number of strategic locations. The early types were Motte and Bailey castles positioned to control important routes. Where a more durable castle and a potent symbol of authority was required, strongholds were rebuilt in stone. The site of a 12th century Castle, built by the wealthy Lords of the Manor, is located in Ashton Keynes.

The Normans were also great church builders (and re-builders) and some churches in the CWParea contain Norman architecture. Village churches were also built or rebuilt on a grander scale. The church at South Cerney has Norman origins although subsequently altered in the 14th century.

While holding court at Gloucester in the winter of 1085, William established the concept of the Domesday Book, the particulars of which provide an invaluable glimpse of the contemporary landscape.

Most of the villages within the CWP originate from the medieval period and are recorded in the Domesday Book. These comprise Kempsford, Whelford, Meysey Hampton, Somerford Keynes, Ashton Keynes, Siddington, South Cerney, Down Ampney, and Castle Eaton. Although located just outside of the CWP study area, the villages of Oaksey, Hannington and Minety are also mentioned.

The grazed meadows at Cricklade are also recorded in the Domesday Book. No mention is made at the time of any place names relating to woodland, which is indicative that the Upper Thames Vale area may have been a predominantly open riverine landscape of wet meadows.

To the south of the CWP, the Domesday Book records the extensive Braydon Forest which was established by the Saxons as a hunting park. Extending from Malmesbury to south of Cricklade, the Normans formalised its status under the Forest Laws and issued a Charter of the Forest in 1217. The once more extensive Royal Forest is now much depleted in extent, but the mosaic of woodlands present a notable wooded skyline to the south.

From the 13th century the wool trade was expanding and began to have an ever-increasing influence on the Cotswold landscape to the north of the CWP study area. Expansion was facilitated by the Black Death that struck between 1348-9 and killed nearly one third of the population of the Cotswolds and reduced the pool of labour available to cultivate the land. Much corn land was therefore reconverted to sheep grazing and a number of villages were deserted or destroyed by landlords. Meanwhile many of the larger settlements benefited from the flourishing wool trade and well established settlements such as Lechlade and Fairford

capitalised on their location in close proximity to the Cotswolds and adjacent to the principal rivers and communication routes and hence became important centres for processing and distribution.

The wealth generated by merchants and landholders from the wool and cloth trade has had a lasting influence on a number of the settlements. The 'Wool Churches' are an enduring symbol of the wealth that this trade generated. These churches share the English Perpendicular style, their towers often the only element to help locate villages when viewed from the surrounding area. The churches of St Mary the Virgin in Fairford and St Lawrence in Lechlade-on-Thames are notable examples of 'Wool Churches' within the CWP. St Lawrence's elegant spire is a particularly notable landmark within the eastern section of the CWP and a reminder of the part that Lechlade played in the medieval wool trade.

Fulling mills were also an important part of the cloth manufacture arising from the wool trade and required proximity to clean flowing water and Fuller's Earth, outcrops of which occur within the CWP. Mills dating from this period are recorded at a number of locations, including two at Latton, and at South Cerney and within Cricklade; it is likely that these were used for fulling purposes.

5.10 Early Modern Period (AD 1500 – 1750)

Following the Dissolution of the Monastries (1536-1540), wealthy merchants were able to consolidate their success by the acquisition of large tracts of land that was formerly owned by the monasteries and build fine new houses, often from the stones of the abbey ruins they had purchased, and establish parks on the land they had acquired. In parallel with this process, many farms and small holdings were established marking a major change in the system of land tenure with a transition from subsistence to agriculture as an economic enterprise in its own right. This network of farms within the agricultural landscape, together with farms and dwellings linked to many of the villages, established a pattern within the CWP area that still remains today. Importantly, these changes lead to the first flowering of the Cotswold style of domestic building which has had such a significant influence on the character and quality of the many settlements within the CWP.

During the 17th century further changes in how the rural landscape was farmed and administered occurred. The ancient rights of 'copyholders', that is villagers whose right to hold land was recorded on the copyholds held in the manor court, were gradually replaced by 'lifeholds'. Through this process, farmers became tenants leasing the land they farmed from the Lord of the Manor. Over time, fewer and fewer tenants farmed larger portions of land. Enclosure began in earnest at this time enabling farmers to consolidate their holdings and build farmhouses and establish areas of woodland for shelter. The pattern of farms that exist today within the CWP study area, beyond those areas that have been lost to gravel extraction and restoration, will have largely been established by this period.

5.11 Industrialisation and the Modern Period (AD1750 – 1945)

From the mid 18th century the pace of enclosure accelerated, creating the patchwork landscape of fields, interspersed with farmhouses that is evident today. The increasing demand for food linked to the effect of the Napoleonic War (1799-1815), and growing urban populations in the expanding industrial cities triggered further land to be enclosed. Wealthy landowners became deeply involved in improving and reorganizing their farms in order to maximise efficiency and a number provided new cottages in villages, built in the traditional style from locally available materials and labour. This consolidated the local vernacular style building on the tradition that had commenced in the 16th and 17th centuries.

The arrival of the canal systems and subsequently the railways during this period heralded significant changes and opened up the area to wider influences and connectivity. The canals enabled the transportation of new building materials from great distances and enabled the use of imported brick and slate for new buildings rather than the locally sourced stone. The now disused Thames and Severn and North Wiltshire Canals and also the route of the Swindon - Cricklade -Cirencester railway line are testimony to a once more comprehensive network that extended through the CWP.

The pattern of the rural landscape from the Great War onwards was again undergoing significant change; mechanical reapers, steam traction engines and later, tractors replaced human effort and horse power in the fields. Similar to the Great War, World War II saw increased pressure on domestic agriculture and pastures were ploughed up for grain production. The tractor, now widely in use, was the major agent of landscape change at the time. While pastures are likely to have remained the predominant land use on the floodplain and lower lying land within the CWP, the conversion to arable production would have been in progress on the more elevated area on the Cornbrash and Dip Slope Lowland areas in particular.

The Second World War also saw the establishment of a number of airfields within the CWP area, forming part of a wider network across the Dip Slope of the Cotswolds. While many have disappeared, the tarmac runways and hangars of the larger establishments are still evident within the landscape.

5.12 Recent History: (1945 – Present)

The historical development and legacy of heritage features and settlement form and pattern is an intrinsic part of the CWP's character. However, the changes that have occurred in the CWP during the 20th century, and particularly since the Second World War to the present day, have signified the most dramatic transformation in the evolution of the character of the landscape. These are principally associated with the extensive sand and gravel extraction and the restoration to a predominantly wetland landscape. In addition to this, however, are other profound and far reaching changes linked to the process of population growth, increased mechanisation, and greater personal affluence, mobility and leisure time.

During this period, the extraction process has resulted in the destruction and permanent loss of extensive parts of the heritage resource. More recently, however, the previous loss of archaeological features and sequential layers of occupation has been compensated by the requirement to undertake comprehensive archaeological investigations as an integral part of planning permission requirements for mineral extraction. This has resulted in the CWP emerging as one of the most comprehensively recorded areas in the country with an ever widening knowledge of the cultural heritage of the area.

Today the rich cultural heritage of the area is affirmed by the many Scheduled Ancient Monuments (SAMs) that have been designated across the area. A total of 34 SAMs are present within the CWP designated area rising to 46 if the additional land extending to functional boundary is taken account of. These are shown on Figure 9: Cultural Heritage. They cover a wide spectrum of features ranging from prehistoric earthworks, sites of Roman villas, medieval settlements and associated field systems and Saxon cemeteries to localised and small scale features such as village crosses. Together, however, they are testimony to the rich archaeological and cultural heritage resource.

In addition to these site focused features, a number of linear features cross the CWP that also provide an important record of past communication networks that have served the area. The Thames and Severn and North Wiltshire Canals, and the Swindon to Cricklade railway line, and its continuation to Cirencester, are all now derelict, but remain potent symbols of this once thriving network and are therefore of considerable industrial archaeological interest. Similarly, features associated with the Thames and its tributaries offer interesting insights into past uses and operations, including the series of mills, realigned sections of the rivers and associated structures for navigational purposes.

The historic character of the area is also embodied in the network of Saxon towns and medieval villages that extend across the wider rural area plus their associated medieval field systems and ancient pastures and remnants of ridge and furrow which together signify the historical evolution of the area.

As the new landscape of wetlands set within an associated rural hinterland continues to emerge this balance of land uses will also become part of the emerging cultural heritage and evolution of the area.

6.1 Introduction

Since the early 20th century, when the first excavations of the mineral reserves within the Upper Thames Valley began, the CWP has experienced a remarkable change in its ecological character. This has been driven principally by the exploitation of the rich mineral reserves and conversion of extensive areas of farmland within the lower lying floodplain area to a mosaic of lakes of varying size and character. While most of this former farmland would have comprised traditional floodplain pastures interspersed with areas of arable land, the mineral restoration process has created a wetland landscape supporting extensive biodiversity rich habitats of standing water together with associated marginal vegetation of woodlands and scrub.

During this period of change the CWP has emerged not only as an important area of inland open standing water within the country but also the most extensive marl lake system in Britain. This is a consequence of the proximity to limestone areas and the presence of lime rich water. The marl lakes support a distinctive range of aquatic and marginal plant communities and also provide a rich habitat for wintering and breeding birds.

This radical transition has occurred within a surprisingly short period of time and provides a fascinating insight into observable ecological processes within this changing and dynamic landscape. As a result the CWP has become an outdoor laboratory enabling ecologists to monitor these processes and patterns of vegetation succession, and study shallow freshwater habitats and species, and transient habitats.

The importance of the wildlife resource is reflected in the abundance of designated sites, which include sites of European: Special Area of Conservation (SAC); National: Site of Special Scientific Interest (SSSI)] and National Nature Reserve (NNR); and local significance: County Wildlife Sites / Key Wildlife Sites.

This review examines the current and emerging ecological resource within the CWP and its effect on landscape character.

6.2 CWP Biodiversity Action Plan (BAP) 2007-2016

In recognition of the ecological importance and sensitivity of the area a CWP BAP was prepared for the period 1997-2007. Since then further changes in the area, together with a need to revisit the tasks and actions identified, has led to the publication of a new CWP BAP for the period 2007 to 2016. This new BAP(07-16) endorses the 50 year Vision in the earlier BAP as set out below:

'The Cotswold Water Park should be a premier site for nature conservation where the requirements of industry, leisure, people and wildlife are successfully integrated'

The key message of this vision is that an holistic approach is required which will support the protection and enhancement of biodiversity interests and targets, but at the same time ensure that it is balanced with other drivers of change notably the continuing mineral extraction activity, leisure and recreation interests, development pressures, the existing farming operations and the interests of both the local population and visitors to the area. Partnership working is therefore essential to the integrated approach. The BAP (07-16) also emphasises that:

'an increase in the biodiversity of an area is a crucial measure of sustainable development and a lasting legacy for future generations'.

6.3 Biodiversity Resources and Designated Sites within the CWP

Both the current CWP BAP and the Strategic Review provide an inventory and details of the biodiversity resources within the area. For background context to this Assessment, however, the principal ecological resources and some of the more important sites are summarised below and also illustrated on Figures 11 (Biodiversity Designations) and Figure 12 (Woodland Types).

Wetland Habitats

The biodiversity value of the network of lakes and associated marginal land supports a rich diversity of fauna and flora, including:

- Internationally important numbers of wintering waterfowl, and nationally important winter populations of species including Pochard, Gadwall, Coot, Great Crested Grebe and Smew;
- Internationally important numbers of lesser black-backed gull;
- A thriving Otter population and an expanding Water Vole population;
- An aquatic plant assemblage of European importance, particularly stonewarts; and
- A regionally important assemblage of dragonflies with a number of locations exceeding the criteria required for SSSI Designation.

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A Mosaic of non Wetland Habitats

Beyond the wetland areas there are other important habitats across the CWP that further enrich the area's biodiversity interest:

- Notable areas of lowland neutral grassland, in particular the areas of unimproved wildflower meadows of which two, North Meadow NNR and Clattinger Farm LNR are designated as Special Areas of Conservation (SACs). North Meadow is particularly renowned for the display of the rare Snakeshead Fritillary (*Fritillaria meleagris*) that flowers across the ancient hay meadow in April.
- In addition to the River Thames, several of its tributaries are limestone rivers and streams comprising in the north, the River Churn, Ampney and Marston Meysey Brooks, River Coln and Leach, and in the south, the Swill Brook. These watercourses support healthy fish populations, Otters, Water Voles and Kingfisher.
- An increasing provision of fen, marsh and reed swamp within the marginal areas of the numerous lakes;
- A mosaic of woodland and linear vegetation associated with the farmland including the hedgerow network and riparian vegetation lining watercourses and ditches, and other boundary features.

Designations

In addition to the two areas designated as SACs there is a total of 9 SSSIs within the CWP, one of which comprises an assemblage of ten lakes that support important aquatic plants. In addition to the NNRs there are also many LNRs managed by the Wiltshire and Gloucestershire Wildlife Trusts as well as privately managed nature reserves. The value of this resource at a regional level is recognised by the inclusion of substantial areas of the CWP as areas of Open Water, Neutral Grassland and Floodplain Grazing on the Nature Map South West and also in the South West Regional Spatial Strategy.

The greatest concentration of nature reserves occurs in the south west of the CWP and in addition to Clattinger Farm LNR, the Swill Brook Lakes LNR and the privately managed Lower Moor Farm Reserve lie in close proximity. Within the farmland to the east and close to the village of Leigh the Wiltshire Wildlife Trust has also established a LNR at Blakehill Farm. Formerly the Blakehill Airfield this area supports species rich hay meadow and associated assemblage of flora and fauna.

A number of Nature Reserves managed by the Gloucestershire Wildlife Trust are also found in the Eastern Section of the CWP, including the Whelford Lakes Reserves and two lakes to the north of Lechlade known as Edward Richardson and Phyllis Amey.

Overall, therefore, there is a remarkable concentration of biodiversity interest that has evolved in a relatively short time with potential to increase in value as new areas of wetland and associated habitats emerge, together with an increasing focus and commitment to the nature conservation management across the whole of the CWP including the existing areas of farmland.

6.4 Generic Action Plan

An interesting aspect of the BAP (07-16) is the inclusion of a Generic Action Plan which sets out a number of policy, funding and awareness raising objectives. In particular it includes landscape scale objectives that have a direct resonance with the principles and processes that are inherent to understanding and guiding landscape character change in a positive and creative way. In particular it sets out the aspiration for the area to be an exemplar in conservation management at a whole landscape scale. This vision for the CWP is examined below together with other objectives that have the potential to affect landscape character.

6.4.1 Biodiversity at the Landscape Scale: The Head of the Thames Wetland Corridor

A Vision for a Wetland Corridor across the CWP

Nature conservation efforts in the CWP have been focused at a landscape level since 2000, building on the opportunities offered by the restoration of the mineral extraction sites. The CWP Nature Conservation Forum (NCF) is working towards a long-term objective of creating and managing the Head of the Thames Wetland Corridor. This broad corridor will incorporate diverse and high quality habitats from the source of the River Thames and its tributaries to the head of the Thames navigation at Lechlade. Although perceived as the last 'wild' stretch of the River Thames it will change dramatically over the next 40 years as a result of ongoing mineral extraction, restoration of quarries, changes in land use, built development, and changes in farming and flood management. Consequently there is a need to ensure that the nature conservation interests of this dynamic landscape are protected and enriched. In addition to using mineral restoration to create new wetland habitats, the intention of the Vision is to also link together the existing areas of high nature conservation value including the group of Wildlife Trust and private nature reserves in the south west of the CWP, the North Meadow NNR, and a series of farms that have entered into agri-environment schemes on the River Thames ranging from Ashton Keynes,

Cricklade and Castle Eaton, to Kempsford and beyond. Opportunities for land acquisition to create new reserves will also be sought. This ambitious Vision for the creation of this extensive riparian corridor will not only benefit a wide range of flora and fauna but also enrich a matrix of interlinked habitats that contribute to the wider landscape character of the area resulting in a mosaic of lowland meadows, wet woodland, rivers and streams.

Flood Control

Flooding patterns are rendering some areas of agricultural land increasingly difficult to work and hence unprofitable. The broad riparian corridor and floodplain area will provide additional benefits through management of parts of this area for wildlife as well as for water control thereby ensuring more effective water storage in the Upper Thames as well as helping to protect settlements downstream.

Development

Another aspect of the Vision is that built development should not be undertaken on the floodplain. As well as seeking to prevent inappropriate development this will also safeguard the area for wildlife.

Implementation

The complex and changing nature of the area dictates that the 'Heads of the Thames Wetland Corridor' project must work at a number of levels to maximize success: within regional and local strategies and development frameworks; the planning system; minerals planning; agri-environment schemes; flood risk management; habitat and species ecology; and land acquisition. Partnership working is essential to the success of this venture and commitment of key partner organisations. The RSPB has confirmed its longer term aspirations to establish a large 'landscape scale' wetland reserve in the central part of the CWP created through a co-ordinated restoration of existing and future mineral extraction sites within this area. The Wiltshire Wildlife Trust's commitment to link key nature reserves, notably at the western side of the CWP, presents similar large scale opportunities.

6.4.2 Balancing Sports and Recreation with Nature Conservation.

The potential conflict between sports activities and recreational pursuits with nature conservation interests was identified in the Generic Action Plan. While this conflict will depend on the type of activity, the species and habitats involved, and also the time of year, there is a need to understand and resolve such conflicts, promoting best practice in the design and management of recreational facilities and integrating these with the objectives of the CWP BAP. Nevertheless there are significant opportunities to integrate high quality nature conservation into new recreation and leisure developments in the area as well as the remediation of existing facilities.

6.4.3 Land acquisition to safeguard sites of nature conservation importance.

Land acquisition can facilitate the implementation of longer term nature conservation objectives by safeguarding key sites and also creating new reserves. Importantly, strategic acquisitions can contribute to landscape-level approach and facilitate the movement of wildlife across the landscape, enabling species to cope with the effects of climate change as well as land use change. Land acquisition is expensive, so it is essential that it is undertaken through a partnership decision in conjunction with the CWP Nature Conservation Forum.

6.5 Habitats within the CWP

The CWP BAP (07-16) includes Habitat Action Plans (HAPs) for a range of habitats relating to those that occurred before, during and after mineral extraction; as a result of the extraction process; and during the extraction process. The HAPs set out a range of habitat creation and restoration targets and actions set within the wider context of the potential of the CWP to create a positive impact for biodiversity as a consequence of its unique and rapidly changing nature. The habitats are listed below in Table 2 together with a brief commentary on key aspects of each of the habitats and their potential effect on or relationship with landscape character.

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Table 2: Cotswold Water Park Habitats

Habitat Type	Review
Habitats found before, during and after mineral extraction	
Boundary Features	Boundary Features encompass hedgerows, walls, highway verges, embankments and ditches. Together, they give the potential to support a range of habitats but also provide the important function of providing linkages across the landscape thus enabling the movement and dispersal of species. Boundary features also form an integral part of other linear networks within the CWP notably rivers streams and large ditches, the margins of standing open water, and canals, all of which are supported by separate HAPs. A range of factors affect Boundary Features and associated tree cover in the CWP. A number of key issues are considered below. *Hedgerows:* A decline in the hedgerow cover has occurred through field amalgamation and also through loss to mineral extraction. Where retained many hedgerows are often either unmanaged or not managed with biodiversity in mind. The flailing of hedgerows also lead to excessively frequent and harsh cutting, and the loss or degradation of hedgerow standards *Roadside verges:* While previous roadside verge management with pesticides has been harmful to wildlife more recent evidence of a lack of management results in encroachment of rank grassland and scrub replacing species-rich grassland, and shading ditches and stone walls. Fertiliser run-off and drift from farmland can also stimulate rank growth on verges and in drainage ditches *Mature & Veteran Trees within Boundary Features:* There are a large number of mature trees within the CWP study area including willow pollards along watercourse margins as well as many hedgerow and in-field trees. Mature oak, ash and field maple are particularly common in hedgerows and fields, and include many veteran trees, although hedgerows and river banks also support large willow and black poplar specimens. The network of trees is of notable biodiversity value as it supports key lichen and invertebrate species and provides movement corridors. However, the type and density of tree cover makes an important contribution to the wider landscape character so their protection and continuity of cover is vital. This tree cover is vulnerable to loss or decline through field amalgamation and further mineral extraction and also adversely affected by poor management either through aggressive flail mowing of hedgerows or deep ploughing and disturbance of the root systems of in-field trees. There is also evidence of inappropriate or lack of management of old pollards, leading to their collapse and decline. The principal objective of the HAP is to retain, enhance and restore boundary features which are important for wildlife and a key characteristic of the landscape. *Effect on Landscape Character* Boundary features are an important landscape element and contribute to the scale and diversity of the landscape and its character at both a local and wider scale. This is particularly evident in the network of hedgerows and associated hedgerow trees within the CWP which are present within the substantial areas of farmland that still remain beyond the wetland areas. A noticeable difference in the boundary patterns can be observed with larger fields and well trimmed hedgerows, sometimes interspersed with stone walls, occurring on the northern perimeter of the CWP study area. In contrast, the southern section and particularly in the south west in the vicinity of Leigh and extending to the study area perimeter near Minety, a more intact hedgerow network with smaller field sizes is evident. The most open area occurs in the central section of the CWP particularly within the area between Marston Meysey and Latton. Here, larger scale fields and low hedgerows impart a more open scale to the landscape.

Built Structures	Built structures support a range of habitats at different stages in their life cycle, including bats, birds, amphibians and various plant communities. A variety of man-made built structures extend across the CWP ranging from existing and new dwellings in the settlements and the wide range of built development associated with the tourism and leisure industry, including hotels, second home developments and lake-side leisure complexes. Infrastructure elements, such as bridges and roads, are included in this category. The intention of the Built Structures HAP is to maximise biodiversity gain associated with these structures and particularly new tourism and leisure developments that have the potential to make significant contributions to nature conservation. The principal objectives of the HAP is to ensure that the nature conservation features associated with built structures are protected and enhanced; and to create new opportunities for nature conservation gain on built developments in the CWP. *Effect on Landscape Character* In view of the site specific nature of built structures and their biodiversity interest the effect on landscape character is at a very local scale. Nevertheless, the accumulative effect of maximising the biodiversity interest of structures particularly in association with new leisure developments, can have a wider influence and effect on landscape character by contributing to the creation of positive features in the landscape and sense of place.
Canals	Canals can support a range of habitats and biodiversity interest depending on their status i.e. as an active water body with associated wetland interests or progressing to an advanced stage of disrepair when the canal has dried out and may have reverted to scrub and woodland. The line of the disused Thames and Severn Canal is the most extensive canal in the CWP together with a very limited section of the North Wiltshire Canal in the vicinity of Cricklade. Despite longer term proposals to restore these canals, both are currently in a poor state of repair and many sections are now in their final stages of dereliction or completely disappeared and absorbed into farmland, as is evident for the section of the Thames and Severn Canal between Kempsford and westwards to the south of Marston Meysey. The principal objectives of the HAP are to carry out environmental assessments for all new maintenance, management, restoration and development work affecting the biodiversity of the Thames and Severn Canal corridor in the CWP; and to maintain and enhance any wildlife habitats of value associated with the Canal. In this context it is important that any restoration work is carried out sensitively and in a well-planned and phased manner to ensure that the canal restoration is beneficial and that in addition to the creation of new habitats, any existing valued habitats that have developed are conserved and enhanced. *Effect on Landscape Character* At present the visual and physical contribution of the canal network to the landscape character of the CWP is limited and generally confined to the contribution to the overall vegetation cover made by the linear areas of naturally regenerating woodland and scrub. At a local level, however, the incidental features associated with the canals, notably the bridges and remnant sections of walls, and changes in landform lend an interest to the landscape, an industrial archaeological reference, and also support concentrations of biodiversity interest as sheltered havens for wildlife.

6.0 ECOLOGICAL CHARACTER

Rivers & Streams	The CWP lies at the heart of the Upper Thames Catchment area so the system of rivers and streams that drain the area, including the River Thames itself, make an important contribution to the biodiversity of the area. Rivers and streams draining the limestone and valley gravels to the north of the CWP are characterised by low flows in summer. To the south, rivers drain the heavy clays although some, notably the Swill Brook, are limestone fed at their source. A wide range of influences affect the ecological value and water quality of the watercourses. These include water abstraction, and the effects of development and the gravel extraction industry, and associated changes in the courses of streams and rivers and potential pollution. In addition to water abstraction, high evaporation rates in the summer period from the many lakes that have been created may also contribute to reduced ground water levels and hence the low flows. Unsympathetic river engineering works that have occurred in the past have also adversely affected the riverine habitat and reduced the natural connection with the floodplain habitat, requiring a long period of time to re-establish a visually and ecologically sympathetic watercourse. Winter and early Spring flooding is a frequent event on the Thames floodplain between Cricklade and Lechlade. In response to the increasing difficulties of managing the land for intensive agriculture many landowners have entered land into agri-environment schemes including arable reversion, creation of wader scrapes, and removal of land from production. This is common in this area. The objective of the HAP is to ensure the continued improvement of Rivers & Streams and associated habitats in the CWP. *Effect on Landscape Character* The intricate system of rivers, streams and ditches are a fundamental feature of the CWP and integral to the character of the landscape. While their presence is often only marked by the network of riparian vegetation that lines the watercourses the intermittent views of the rivers and streams that are obtained provide a recurrent affirmation of their presence and contribution to the area's intrinsic character.
Lowland Neutral Grassland	There are a limited number of species rich hay meadows or pastures within the CWP forming remnants of a once more extensive cover of traditionally managed lowland flower rich meadows. Agricultural improvements and mineral extraction have resulted in the progressive depletion of this now scarce habitat. North Meadow and Clattinger Farm are the key sites, achieving SAC designation, but other meadows are present including Pike Corner, Elmlea, Wildmoorway, Upper Waterhay and Long Meadows. The principal objective of the HAP is to maintain and increase the area of Lowland Neutral Grassland in the CWP. *Effect on Landscape Character* Areas of lowland neutral grassland are general dispersed and localised areas and as a consequence do not make a strong contribution to the wider landscape character. Nevertheless, where they do occur they impart richness to the rural landscape derived from the traditionally managed farming systems that support the flower rich hay meadows and pastures.

Farmed Land	Despite the progressive loss of many areas of farmland and conversion to lakes, the Farmed Land habitat, which covers arable land and intensive pastoral systems, still covers an extensive part of the CWP. The principal habitats are linked to in-field and field margins with the latter generally supporting a greater wildlife diversity. The nature of farming methods inevitably results in seasonal disturbance, but in general mixed farms support a greater diversity of species and habitats than the more specialised arable and pastoral systems. Other habitats that are closely aligned to Farmed Land, comprising Boundary Features, Lowland Neutral Grasslands and the mosaic of Woodlands, support a much richer biodiversity but are covered by other HAPs. However, these linked habitats form an integral part of the overall perception of landscape character of the rural farmed landscape. The HAP sets out a number of objectives: to work with land managers to increase the biodiversity value of the land; to increase the contribution of farmland to creating a continuous corridor of land through the CWP under favourable nature conservation management, linking in with the Head of the Thames Project (CWPSoc), Futurescapes (RSPB) and Rebuilding Biodiversity (The Wildlife Trusts); and to maintain and support wildlife populations during and after mineral extraction. *Effect on Landscape Character* The mosaic of pastoral and arable farmland covers an extensive area of the CWP and wider study area and forms the setting for the areas of inland water. It is therefore of particular importance in influencing the character of the CWP landscape. There is a diversity of farmed land across the CWP with larger and more open fields and a predominance of arable land characterising the central part of the CWP. In contrast, smaller scale fields and mixed farming is more frequent in the south and south west of the CWP. The HAP will work towards enriching the diversity and strength of character of the farmed land. The creation of a continuous corridor of land is of particular note ensuring that a farmed landscape is retained and strengthened balancing the wetland character associated with the mosaic of lakes and network of watercourses.
Woodland	It is estimated that there is approximately 134ha of woodland over 1ha in size in the CWP but there are many further areas of riparian woodland and small secondary woodlands within the lake compartments. Ancient woodland is poorly represented (12.3ha) and most of the remainder is secondary or plantation woodlands of relatively recent origin. Secondary woodlands often consist of a combination of ash and pedunculate oak on drier areas and some examples support an interesting ground flora. In the CWP significant areas of secondary woodland are of the carr woodlands type, typically comprising Willow and Alder and a shrub understorey. Although there has been no strategic or coordinated plan regarding woodland management or creation in the CWP the findings of the Strategic Management Plan identify the need for a Landscape Strategy which would incorporate the consideration of the woodland at a ‘whole landscape’ scale. The key objectives of the HAP are to promote landscape-level planning and coordination of woodland management and creation across the CWP; and appropriate management of riparian woodlands in the CWP

	Effect on Landscape Character Historically the CWP is not a wooded area. Nevertheless, this is a dynamic and changing landscape as a consequence of the extensive and emerging wetland. This has resulted in the establishment of many linear woodlands on lake margins leading to the creation of the sense of a wooded or enclosed landscape. Linked to this change are opportunities to consider the CWP in a wider context through its location equidistant between the woodlands associated with the former Braydon Forest to the south and the Cirencester Park and Sapperton Woodlands to the north west of the CWP. Furthermore the Great Western Forest, with its vision of creating a mosaic of woodland and farmland, extends into the southern part of the CWP. There is therefore an opportunity to examine the existing and emerging pattern of woodland at a sub regional landscape level and consider the contribution that the CWP could make to this change through the enhancement and strengthening of the woodland cover in selected and appropriate locations. Linkage of major woodlands beyond the CWP could benefit the movement and dispersal of species and also contribute to an emerging new landscape character. Potential for new woodland creation may exist in the central part of the CWP following mineral extraction and restoration linked to the aspiration to create a major nature reserve with associated areas of wet woodland.
Habitats created as a result of the mineral extraction process	
Sand and Gravel Quarries	The changing nature of the sand and gravel quarries generates both opportunities and challenges for the two main habitats they support. These comprise farmland-type habitats associated with the land prior to topsoil stripping and post restoration, and favoured by wintering farmland birds as well as brown hares; and bare gravel and sand-type habitats, which attracts specialist species such as nesting sand martin and little ringed plover which require unvegetated nest sites. The dynamic nature of the CWP with its changing pattern of active extraction is therefore an asset to certain species that rely on periodic disturbance and the creation of bare ground and open habitats. The timing of operations associated with the quarrying process is critical to the species dependent on these temporary habitats, The principal objective in the HAP is to improve the wildlife and biodiversity potential in quarries in the pre-, during and post extraction phases, including the restoration processes. *Effect on Landscape Character* Although sand and gravel quarries are a transitory feature within the landscape, their presence, and dynamic nature, is integral to the current landscape character of the CWP as well as its raison d'etre. Despite the dominance of the active quarry operations, their overall visual impact is at a local scale and also principally confined to the broad low lying swathe of land adjacent to the Thames floodplain area, contained by substantial areas of farmed landscapes to the north and south of the quarrying zones.

Fen, Marsh and Reedswamp	Fen, marsh and reed-dominated communities have declined nationally in the last century, but are increasing in area in the CWP, occurring as marginal fringe habitats of restored open water. The principal objective in the HAP is to maintain and manage existing fen habitats and create and also manage new communities for priority wetland species, linking to existing habitats and wildlife corridors within and beyond the CWP. *Effect on Landscape Character* As the habitat is confined to shallow wetland on lake margins, the effect on landscape character is more limited and localised. However, the ongoing process of conservation and enrichment will contribute to the diversity and interest of the lake margins and this in turn will enhance landscape character at the local level.
Habitats created during the mineral restoration process	
Standing Open Water	The mosaic of lakes within the CWP, many of which are marl lakes, is a unique national ecological resource. This habitat is also of high conservation importance in the CWP, supporting a diversity of internationally, nationally and regionally important assemblage of waterbirds, aquatic marginal vegetation and other species. A multitude of factors affect the quality of the lakes and the habitats they support ranging from pollution, water level fluctuations, urban and recreational influences through lake margin development and disturbance, and the means of gravel extraction and subsequent restoration. The HAP sets out the need to maintain and enhance the lakes for their nature conservation interest; target specific after-uses, habitats and species in conjunction with the creation of new lakes; and develop zoning of built and recreational development and nature conservation within the CWP. *Effect on Landscape Character* The mosaic of lakes that permeate the lower lying floodplain of the Thames and its tributaries underpins the essence of the CWP particularly in the western section of the area where there is a higher concentration of standing open water. Nevertheless, as a result of the development of marginal vegetation both through natural regeneration and planting, many of the lakes are often hidden from direct view evoking a 'compartmentalised' landscape. This has created a sequence of enclosed and open water and a variety of experience and character. However, where the principal concentrations of standing open water habitats occur, the overall effect on landscape character is that of an extensive wetland contained by intermittent maturing wooded.

6.0 ECOLOGICAL CHARACTER

6.6 Summary

From this review of the biodiversity resource within the CWP and its ecological character it is evident that the area will continue to provide a rich resource. However, there are inherent conflicts with other competing interests particularly those associated with development pressures arising from commercial interests, notably the mineral extraction industry, and leisure and recreation developments. In addition, 'natural' processes linked to climate change including flooding and other hydrological effects will also affect the biodiversity of the area.

The progressive change in land use and resultant ecological character has had a significant effect on landscape character. What was almost entirely farmland is now a dynamic and fluctuating balance of wetland, farmland and woodland interspersed with existing and emerging built development and infrastructure as well as the changing pattern of the mineral extraction industry activities.

The conversion of farmland to wetland, and associated areas of vegetation, has resulted in the emergence of areas of considerable importance in ecological terms and also created a new and dynamic landscape. However, many sections of the wider CWP study area still remain as farmland. This predominantly rural agricultural landscape provides the wider context and setting to the core areas of wetland that are concentrated within the floodplain of the Upper Thames and its tributaries and defines the 'signature' landscape and ecological character now often associated with the CWP.

The areas of farmland form part of a wider range of ecological habitats that are present within the CWP which together make up the biodiversity interest that is present today. Because of the nature of modern farming methods the biodiversity value of the agricultural land in many areas has declined. However, boundary vegetation in the form of hedgerows, ditches and linear woodlands as well as more extensive areas of woodland interspersed within the farmland help to compensate for the decline in biodiversity value. Furthermore, remnants of the former traditional farming patterns still remain and species rich hay meadows are present in some parts of the CWP.

The establishment of key areas for nature conservation and biodiversity enhancement needs to be universally agreed by all interests within the CWP to ensure that wider decisions respect those areas that are identified as of the greatest importance and value in biodiversity terms and continue to contribute to the wider ecological character. The main opportunities for biodiversity enrichment are in the flood plain where future built development will be limited. Nevertheless, recognising the high development pressure outside the floodplain, significant opportunities exist to integrate high quality nature conservation into new recreation and leisure developments in the area.

The Vision to establish a broad 'landscape scale' wetland corridor across the east - west axis of the CWP, following the floodplain of the Upper Thames is a particularly ambitious and compelling proposal within the CWP BAP. In addition to incorporating existing and emerging biodiversity rich habitats, it will contribute to an enrichment of the landscape character of the CWP by establishing a strong mosaic of farmland with a predominance of lowland meadows, wetland and woodland together with a network of rivers and streams and associated riparian vegetation extending across the core of the area. Achieving this long term objective will establish the CWP as an exemplar in ecological conservation management practices and a demonstrator of a positive response to mineral extraction activities.

7.1 Introduction

The establishment of the Cotswold Water Park in 1967 gave formal recognition to the importance and potential of leisure and recreation pursuits within the area, embodied in the inclusion of 'Water Park' in the title. In the forty years since its establishment, the timeless appeal of water in a countryside setting has been a principal magnet in the development of leisure and recreational facilities within the Cotswold Water Park, driven by the potential offered by the progressively expanding number of lakes that have been created through the infilling of the gravel extraction pits. Visitors to the area enjoy an increasing range of activities from active water sports to quieter and more passive pursuits linked to exploring the mosaic of wetland and the rich biodiversity of this rural area. As a consequence the area has become well established as a tourism destination.

This chapter reviews the leisure and recreational influences on the Cotswold Water Park landscape and considers the range of facilities that the area currently provides together with future opportunities. The synergy with adjacent areas is also considered together with the key issues that may affect the evolving landscape character.

The Vision and Implementation Plan published in 2008 is the culmination of the Strategic Review and sets out a range of tasks and recommendations for action, initially over a five year period. A number of the tasks concerned with Sport, Leisure and Recreation, and Tourism are considered in relation to their potential effect on and benefits for the changing landscape character of the Water Park.

7.2 A Strategic Leisure Location

The network of inland lakes of varying character, together with their setting within a quiet and attractive rural landscape, presents an appealing destination for visitors and an incentive to visit the area in its own right. Nevertheless in a regional context the CWP also benefits from its geographical proximity with other favoured and well visited areas to nationally and regionally recognised landscapes, features and routes. These principally comprise:

- the nationally cherished and quintessential limestone landscapes of the Cotswolds AONB located immediately to the north and west, the influence of which is particularly evident in the distinctive settlements in the northern part of CWP with many buildings displaying the typical Cotswold limestone vernacular;
- the expansive and tranquil open chalk landscapes of the Marlborough Downs AONB to the south whose presence is defined by the line of the distinctive escarpment in longer distance views to the south; and
- the Thames Path National Trail, which passes through the heart of the CWP but also provides a link to the Oxfordshire countryside to the east beyond Lechlade.

The close association with these nationally renowned areas and routes extends the potential of the CWP as a visitor destination through the synergy afforded by these well visited areas. Nevertheless, the presence of an extensive network of inland waters situated between these protected national landscapes, plus the unique range of leisure and recreational opportunities available, enables the CWP to not only complement and benefit from these adjacent areas but also rank as a key destination and tourism focus in its own right.

7.3 Leisure and Recreational Features and Sites within the Cotswold Water Park

There are numerous leisure and recreational sites and opportunities within the CWP the majority of which are linked to the lakes and offer a range of water sports or more passive enjoyment of the landscape and nature conservation interests. These facilities are dispersed across the CWP, however, and with a notably different 'offer' and character from west to east. The principal and potential leisure and recreational assets and opportunities within the Western, Central and Eastern Sections are summarised below.

7.3.1 West (Pool Keynes to Cerney Wick)

- The Gateway Centre is located at the eastern end of the B4696 Eastern Spine road that follows the heart of the Western Section of the CWP and provides an information centre and refreshments.
- Keynes Country Park is the principal asset attracting over 200,000 visitors a year. A range of water sports and cycling pursuits are available including lake edge picnic areas and a bathing beach together with the Millennium Visitors' Centre.
- Neigh Bridge Country Park is a quieter and lower key facility focused on walking, bird watching and fishing.

7.0 LEISURE AND RECREATION INFLUENCES

- A range of outdoor pursuits run by private companies include aerial adventure sports at Head for Heights and Waterland Outdoor Pursuits adjacent to Keynes Country Park; Butts Farm Rare Breeds and Shop; horse riding facilities at South Cerney Riding School and Cotswold Forest School; and the Cotswold, Whitefriars and South Cerney Sailing Clubs.
- A wide range of active water sports are available across the many lakes include swimming, waterskiing, jet skiing, windsurfing, sailing, canoeing and kayaking as well as other active sports including golf.
- Opportunities for informal passive pursuits, encompassing walking, horse riding, cycling, fishing and bird watching, are serviced by a number of car parks, principally at Waterhay, Neigh Bridge and Clayhill. Two minor roads in the west have been designated as quiet lanes to enhance the enjoyment of the use of these routes as an integral part of a wider network of rights of way for walkers, cyclists and horse riders.
- Notable wildlife sites within this Section include the Swillbrook Lakes area, the Clattinger Farm, Lower Moor Farm and Blakehill Nature Reserves all on the south western side of the CWP.
- National walking routes cross the western CWP significant sections of which also permit horseriding and cycling. These comprise the Thames Path; the National Cycling Route 45 that follows the disused Swindon to Cirencester railway line; and the tow path / footpath that follows the route of the Thames and Severn Canal.
- Service provision for day and overnight visitors to the area range from hotels and restaurants to more exclusive lake edge developments available for fractional ownership or second homes notably the Watermark and Lower Mill Estate, as well as other holiday park facilities such as the Hoburne complex, to more informal cafes, self catering premises, caravan and camping and bed and breakfast accommodation.
- The settlements within this section also provide a range of facilities, as well as a visitor destination in their own right, in view of their attractive historic cores and local vernacular. These mainly comprise the villages of Ashton Keynes, South Cerney and Somerford Keynes as these are integral to the mosaic of lakes. However, other villages in the wider area present interesting destinations for the exploration of the rural area surrounding the network of lakes, whether by foot, bicycle or car.

7.3.2 Central (Cricklade and Latton to Marston Meysey)

Unlike the Western and Eastern Sections of the CWP, leisure and recreation facilities within the Central Section are fewer. There is an absence of lakes as a consequence of the more limited mineral extraction that has taken place, currently confined to the area to the north and west of Eysey and between Cerney Wick and Latton straddling the A419. This Section provides a more informal leisure experience focused on the main settlement of Cricklade. Although generally quieter, particularly from Down Ampney to Marston Meysey, the A419 bisects the area and busy traffic affects the eastern side of Cricklade and the smaller settlements of Latton and Cerney Wick. Air traffic noise from RAF Fairford also affects the eastern side. The principal and potential leisure and recreational facilities comprise:

- Cricklade: The historic settlement of Cricklade is renowned for its Cotswolds vernacular buildings and the memorable landmark of St. Sampson's with the four tall rounded turrets rising above the church tower. The town offers a range of facilities including the Town Museum.
- The Cricklade Country Way: A long term masterplan for the Cricklade Country Way has been prepared with a vision to provide a green recreational and wildlife corridor link between the northern edge of Swindon and Cricklade and the Cotswold Water Park. The route would offer a range of off road means of travel between the towns - by foot, cycle or horse, via a restored Swindon to Cricklade Steam Railway or, more ambitiously, using a restored North Wiltshire Canal. In due course this would develop Cricklade as a further focus within the central part of the Water Park.

- The Thames and Severn Canal: This forms part of the wider Cotswolds Canal System, and passes through this Sector. Although disused, a footpath follows its route westwards from Eysey. There are proposals to restore the Canal although a recent announcement by British Waterways to withdraw funding for the HLF application is likely to adversely affect the aspirations to restore it.
- The North Wiltshire Canal: A short section of the disused canal and adjacent footpath links into the Thames and Severn Canal at 'The Basin' at Latton Junction, north of Cricklade.
- North Meadows National Nature Reserve: To the north of Cricklade on the floodplain between the Thames and Churn Rivers, this site is renowned for the display of the rare Snakes Head Fritillary that flowers across the ancient hay meadow in April.
- The National Cycle Route 45: the route passes through the area and permits walking as well as cycling.
- Down Ampney: This attractive small village is of interest through its association with Ralph Vaughan Williams who was born in the Rectory. Other villages such as Marston Meysey and Poulton are more remote and less frequently visited.

7.3.3 East (RAF Fairford and Kempsford to Lechlade)

In comparison to the west of the CWP, there are fewer lakes in the Eastern Section but where these occur they support a range of leisure and recreational facilities. As with the Central Section, air traffic from the RAF Fairford air base generates intermittent noise. This contrasts with the generally quieter character of this Eastern Section and the tranquillity that can be experienced in the more remote sections. The principal leisure and recreational facilities comprise:

- Claydon Pike / Warren's Cross: The group of lakes associated with the Claydon Pike gravel extraction area is in the process of being developed as Coln Park / The Lakes and will incorporate the existing range of facilities that have been developed for the lakes already restored including sailing and canoeing at Bowmoor Lake, and lakes dedicated to trout fishing, canoeing and for conservation purposes. The development also includes a hotel that is under construction at 2008 and high quality lake edge 'retreats' that respond to sustainable objectives. Although predominantly a private development there is public access to the perimeter of some of the lakes in the complex but limited to walking and bird watching.
- Whelford Pools Fisheries is located on lakes to the north of the village of Whelford and is a venue for carp angling. To the north of this facility, the Craig Cahoon Water Ski School provides for more active sports interests.
- Both the large village of Fairford and the nearby small market town of Lechlade are important focal points and offer a range of services and facilities. The Cotswold vernacular of the buildings within their historic cores contributes to their attraction to visitors. In addition to the Trout Fishery to the north of Lechlade, the town provides direct access to the Thames at the Riverside Car Park and picnic area.
- The Thames Path passes through the Eastern Section, and although the smaller settlements of Kempsford and Castle Eaton are more remote and less frequently visited, they lie alongside the Thames and are therefore a favoured refreshment stop for walkers on the long distance trail.

7.0 LEISURE AND RECREATION INFLUENCES

7.4 General Comments and Issues

The Strategic Review has highlighted a number of Key Issues in relation to leisure and recreation. Those that have the potential to affect landscape character, along with other observations drawn from this review are included below.

- A wide variety of leisure and recreational facilities is available across the CWP but a notable concentration occurs in the Western Section as a consequence of the presence of the greatest number of lakes arising from the longer period of mineral extraction. Although future mineral activity is likely to shift towards the Central and Eastern Sections the concentration of facilities in the West, and the synergy arising from these investments is likely to result in this Section remaining the focus of activity for a long period.
- Despite a greater concentration in the West, many of the facilities are dispersed or unrelated to each other. This signals potential conflicts of use and of the spatial and visual fragmentation that can arise and the design challenges of accommodating often disparate and incongruous uses where they are in close proximity. This in turn has a direct effect on the changing landscape character and the challenge of integrating such a diversity of land uses and activities at a local level.
- There is restricted access to some lakes particularly where they are in private ownership and focused on specific activities. There is also little or no open access land but some registered common land is present, most notably the North Meadow above Cricklade.
- The different sections of the CWP are not connected via multiple user routes and substantial sections of the Thames Path are confined to use by walkers only.
- There is a lack of access points with many sections of the woodland along the perimeter of the lakes remaining impenetrable. In addition there is a lack of a coherent system of signage and linkages between the key assets, or a consistent or recognisable waymarking system for walking and cycling routes. As a consequence this reduces the coherency of the visitor experience.
- The character of the Central Section of the CWP as well as its focus could change in the future should the proposal to develop the Cleveland Lakes, north of Cricklade, as a major Water Sports Complex be realised. Its development would raise the profile of the CWP as a national resource with opportunities for training and linked investment. However, aside from the investment challenges, there are technical problems in the creation of the 2000m rowing course due to limitations to establish an appropriate turning area.
- There is scope to explore other leisure and recreation developments in tandem with the proposals for the Cotswold Countryside Way and the restoration of the Thames and Severn Canal. This would also affect the Central Section and influence its changing character and focus within the CWP as a whole presenting opportunities to demonstrate more integrated and appropriate solutions and wider enhancement.
- In recent years there has been evidence of a growing commercial interest in accommodation provision. A number of hotels and other leisure related holiday complexes have been developed and new applications have come forward for determination by the relevant local authority, although planning permission has not always been granted. However, this boom in the development and property market and expansion of second and fractional ownership homes will undoubtedly have been adversely affected by the global collapse of confidence in the financial markets in 2008 and the downturn in the development sectors and market economy generally. In the shorter term this economic decline is likely to act as a brake to further commercial and leisure property development until a period of financial stability has returned. Nevertheless once confidence resumes the continuation of development requires careful monitoring and control to ensure that appropriate and visually sympathetic solutions are achieved as these have a significant effect on character.
- A particularly notable outcome of the Strategic Review's Vision and Implementation Plan is the recommendation for an Integrated Leisure Network. This would provide more coherence to the current network of footpaths, bridleways and cycle paths and build on the existing linear networks within the CWP. It would also contribute to a proposed Green Infrastructure Network, which is discussed below in response to the Strategic Review Targets.

7.5 Sport, Leisure and Recreation Tasks: Landscape Character Change and Enhancement

The 'Vision and Implementation Plan', Stage III for the Cotswold Water Park sets out a wide range of tasks, a number of which directly relate to sport, leisure and recreation, and tourism. Those that have the potential to affect landscape character or the visual amenity of the area are set out below, together with a commentary on the landscape character implications and beneficial opportunities where appropriate.

CP14 *Establish an action based strategy for developing an integrated leisure and recreation network for the CWP using a network of footpaths, cycle paths and bridle paths and support facilities. This is to form an integral part of the Green Infrastructure Network (GIN).*

The development of an integrated leisure and recreation network presents the opportunity for undertaking a comprehensive programme of landscape and biodiversity enhancement as part of the delivery of a more legible system of sustainable movement. Where possible, new routes and linkages should be integrated with existing landscape features and biodiversity corridors e.g. watercourses and associated riparian vegetation, tree lines, hedgerows and lake edges, and disused canal routes and railway lines to ensure that these linear networks can be enriched and strengthened. This process will contribute to the enhancement and strengthening of landscape character through the consolidation and integration of the networks and links, and also achieve multi-functional benefits that are an integral part of green infrastructure.

CP15 *Establish investment priorities in leisure amenity development based upon the principle of utilising the unique attributes (lakelands) of the CWP's countryside environment.*

The mosaic of lakes are the principal attraction and 'raison d'être' for the Cotswold Water Park and an essential part of its evolving character. New leisure amenity development associated with the lakeland areas needs to respect and be sensitive to the lake edge settings. The current and evolving range of architectural styles and associated detailing is indicative of the need for an emerging and clearly defined 'Cotswold Water Park vernacular' that will contribute to a confident and evolving landscape character. This could draw from both the existing vernacular and built character of the surrounding settlements but also provide an opportunity for a new contemporary architecture to be introduced that is sympathetic to the area and symbolic of the dynamic nature of the land uses.

CP16 *Utilise the envisaged growth in other core priorities (biodiversity, sports, leisure and recreation) to enhance the CWP's reputation as a tourism destination.*

One of the key assets of the Cotswold Water Park is the interrelationship between the multiple uses and interests which together contribute to the overall and emerging character of this dynamic landscape. Future development designed to provide for visitor needs and strengthen the CWP as a visitor destination must ensure that this draws from an emerging and coherent character for the CWP. There is therefore a need to develop a greater clarity for an evolving CWP Character that is endorsed by the CWP Joint Committee and followed through by LPAs in the steering and determination of new applications and other enhancement work.

CP18 *Promote development of new visitor hubs or gateways to serve visitors to the central and eastern sections of the CWP, utilising larger settlements where possible.*

The establishment of stronger focal points and gateways within the CWP is an important requirement in order to strengthen the identity of the area and provide a sense of arrival. This is particularly necessary in the Eastern sections of the CWP where there is more limited or tangible evidence of the Water Park. The larger settlements in the East and Central Sections of Lechlade, Fairford and Cricklade all have a well defined character due to a coherent and consistent building vernacular and settlement form. Building onto this intrinsic strength of character presents good opportunities for a gateway presence but must be handled sensitively to ensure the settlement character is not devalued.

8.1 Settlement Pattern: General Influences and National Context

The historical development of settlement patterns and their character demonstrates a close relationship with the landscape and in particular the underlying geology and its structure. This is manifested through its influence on landform and hydrology which together are important determinants of settlement location. Where superficial deposits are present, these may also affect local drainage and soil characteristics, while the underlying bedrock can also provide a source of local building materials. Together, these geological factors combine to influence the location and character of settlements. The presence of watercourses and springs is another key factor that has influenced the settlement location. While the availability of potable water is crucial for a settlement's needs, watercourses can also be important at a strategic level in relation to key crossing points and confluences of watercourses and facilitating communication. Set within this broad context the settlement pattern within the CWP is a microcosm of these influences with many of the historic settlements displaying a close relationship with landform, albeit at a subtle and local scale, and proximity to water.

At a national level the Atlas of Rural Settlement in England classifies the study area within the Cotswold Scarp and Vale sub-province. In the area of the province within the CWP, villages and hamlets appear at moderate densities. The Atlas identifies the area as transitional between the Midlands, with its large area of relatively homogeneous terrain with subtle variations, and the broken heterogeneous terrains of the West Sussex sub province to the south.

8.2 Settlement Pattern within the Cotswold Water Park Study Area

Set within the broad low lying vale of the Upper Thames, the settlements within the CWP study area occur as a generally evenly distributed pattern of small towns, villages and occasional hamlets, together with a dispersed pattern of farmsteads. Overall the settlement pattern is generally sparse with large areas of farmland and wetland separating the settlements that extend across the vale bottom and onto the gently rising slopes to the north and south of the CWP.

The Influence of Water and Bridging Points

There is widespread evidence of the strong influence of the proximity to potable water, river access and key bridging points in determining settlement location within the CWP. The majority of the settlements within the CWP are located near or adjacent to a watercourse, with many located adjacent to the River Thames or its tributaries. In the case of the larger settlements of Cricklade and Lechlade-on-Thames, these occupy land close to confluences of the Thames with its principal tributary rivers, comprising the Churn and Cole respectively. Some settlement names confirm their strategic importance and historical development in relation to river crossing points as in Fairford and Kempsford, since the suffix 'ford' is clearly an indication of their location at fording points across the rivers. Similarly Cricklade's name is considered to be derived from the Anglo Saxon 'crecca-gelad' meaning 'stone ford'.

The Influence of Landform

In addition to the influence of water in settlement location and development, many of the small towns and villages have established on slightly elevated land above the surrounding floodplain levels in order to avoid potential flooding. Examples of settlements that occupy locally elevated land include Cricklade, Meysey Hampton and Marston Meysey. It is notable that the old Saxon word for island is 'sey', hence reflecting the slightly raised areas that the settlements have developed on within the surrounding lower lying floodplain. Other smaller settlements and farmsteads occupy more pronounced hillocks that rise above the floodplain, many of which are formed by the deposition of the extensive gravel terrace deposits. Examples where farmsteads have taken advantage of the more elevated and better drained land include Hailstone Farm on Hailstone Hill to the west of Cricklade, Marston Hill Farm to the east of Meysey Hampton; and Poulton Hill Farm and Poulton Priory / Priory Farm to the south of Poulton.

Settlement Density and Disposition

Although numerous settlements are dispersed across the CWP, many areas appear almost devoid of settlement such that they present an open and un-settled character. This is particularly evident within the swathe of land in the central and south eastern parts of the CWP study area, where settlement is limited to intermittent and dispersed small villages and farmsteads which appear isolated and separate from the main settlements.

In contrast, the series of settlements on the northern perimeter of the study, impart a more settled character. Here, the settlements of Lechlade, Fairford, Meysey Hampton, Poulton and the Ampneys, all of which developed adjacent to watercourses, are also linked by the A417. The succession of settlements located along this main route strengthens the sense of occupancy of the landscape.

8.0 BUILT CHARACTER

The busy A419 separates the western and central parts of the CWP. Unlike the A417 which passes through the heart of or immediate edge of settlements, both Cricklade and Latton and Cerney Wick are more detached from the A419 although nevertheless affected by the traffic noise and movement.

There is a further concentration of settlements within the western part of the CWP comprising South Cerney, Ashton Keynes and Somerford Keynes as well as Cerney Wick and Cricklade on the eastern perimeter of this sector. Although these historic settlements are in close proximity to each other their previous visual connection has been lost through the presence of an intervening mosaic of lakes and associated dense perimeter vegetation which intercepts longer views and any intervisibility between settlements.

8.3 Settlement Form

The majority of the settlements exhibit a predominantly nuclear form, of which Cricklade, Ashton Keynes and Fairford are particularly good examples. However, a number of the smaller villages have a more linear form notable examples of which include Poulton on the northern perimeter of the study area, Marston Meysey, Down Ampney and Kempsford. Lechlade, while retaining an essentially nuclear form focused around its historic core, has expanded northwards along the A361 and as a consequence displays a linear extension.

8.4 Vernacular Building Styles

The local vernacular within the CWP is typical of the tradition for buildings to be constructed in local materials. The proximity of the Cotswolds and the readily available Jurassic limestones from this area has resulted in the Cotswold vernacular forming the prevalent building style within the CWP. As a consequence the historic cores of the majority of the settlements within the CWP display a Cotswold character with a consistent use of the local limestones. This influence extends into the settlements on the southern part of the CWP such as Cricklade and much smaller settlements such as Castle Eaton.

Typical dwellings in the local vernacular buildings therefore display characteristic Cotswold construction with rubble stone walls, and stone roof tiles laid in diminishing courses on steep roof pitches with swept valleys where the pitches meet and small stone mullioned windows. However, for more prestigious buildings and ‘town houses’, the use of dressed stone is typical.

Further south and more detached from the Cotswold influences there is evidence of a wider range of materials. Here an increasing use of brick is evident, both for quoins and copings, and also for entire dwellings. The introduction of brick dated from the 18th century when it became an increasingly important building material utilizing the local resources of the Oxford Clay and further afield. There is also a greater range of roofing materials ranging from stone tiles to slate, thatch and clay tiles.

8.5 Recent Developments within the CWP

More recent developments within the CWP associated with the leisure industry and largely detached from any of the existing settlements.

In the 40 years since the CWP was designated there has been a generally small scale and incremental expansion of the main settlements with new housing estates established on the perimeter of some of the settlements. Developments on the western edge of Cricklade and the northern and western side of Lechlade are evidence of this incremental expansion. In addition examples of infill and conversions within settlements and some new dwellings and conversions in rural locations are testimony to the process of growth over the last 40 years. These developments form an integral part of the settlements, however, and while the style and character of the dwellings may not fully reflect the local vernacular there has generally been an endeavour to reflect local materials albeit as a contemporary response.

In parallel with this incremental growth within the existing settlements, much of the recent development within the CWP within the last few decades is attributable to commercial and leisure and recreation developments. This has signified a particularly conspicuous change in the development form and character and while not constituting new settlements, the scale and form of some of the developments has had a significant effect on the evolving CWP character and the disposition of settlement form, albeit linked to more temporary and leisure based uses.

These changes and developments have mainly been confined to the extensive wetland areas in the western part of the CWP with a particular concentration close to the B4696 Spine Road. More recently, however, the eastern section of the CWP has become the focus of new leisure based development, with the construction of a new hotel and lakeside cabins focused at Claydon Pike adjacent to the A417.

Unlike the early settlement location drivers, these more recent developments in the CWP are driven by market led opportunities. This has been influenced by sites that offer close proximity to the lakes and an opportunity to create an attractive water edge setting to new buildings. Thus the more traditional influences that have steered the location of settlement have been superseded by commercially led decisions that seek to offer attractive premier locations for second or fractional ownership homes and leisure related premises.

A new contemporary character has evolved within many of these water edge developments that incrementally have sought to establish their own identity and design expression rather than slavishly reflect and copy characteristics of the local vernacular that is characteristic of the surrounding settlements. The creation of an evolving design response that meets the new demands of a leisure focused industry in the CWP is positive and progressive. However, there is a need to carefully articulate how this is achieved and ensure that quality is not diminished. Moreover, it is important that there is compatibility and continuity in the overarching design vocabulary between existing and new leisure and water focused developments to ensure that a coherent 'Water Park character' and sense of place is achieved.

8.6 Conservation Areas

The historic cores of the majority of the settlements within the CWP study area are designated as Conservation Areas in recognition of their special architectural or historic interest, and the character and appearance of the settlement. Many reflect the influence of medieval origins and include many buildings that are typical of the Cotswold vernacular. That most of the villages and towns within the CWP are protected by Conservation Area designation is testimony to their conservation importance and the contribution they make to the wider character of the area.

The statutory Conservation Area designation ensures that while development is not precluded from taking place, special account must be taken to ensure that any buildings constructed or altered within the Conservation Area are undertaken to high design standards. Furthermore, the setting of the Conservation Area must also be taken into account to ensure that any new development does not adversely affect the integrity of the wider influence of the form of the settlement in relation to the surrounding rural context.

The list below sets out the Conservation Areas within the CWP. The first date indicates when the Conservation Area was first designated followed by any subsequent revisions.

Gloucestershire

- Ampney St. Peter: 1977 with revisions in 1989 and 1996
- Down Ampney: Designated in 1991
- Fairford: Designated in 1970 with revisions in 1990
- Kempsford: Designated in 1989
- Lechlade: Designated in 1971 with revisions in 1986, 1990, and 1994
- Meysey Hampton: Designated in 1972 with revisions in 1989
- Poulton: Designated in 1981 with revisions in 1990
- Somerford Keynes: Designated in 1989
- South Cerney: 1970 with revisions in 1990, 1993 and 1999

Wiltshire

- Ashton Keynes: 1974 with revisions in 1994
- Castle Eaton: 1975 with revisions in 1990
- Cricklade: 1970 with revisions in 1999
- Marston Meysey: 1974
- South Cerney: 1970 with revisions in 1990, 1993 and 1999

8.7 Principal Settlements within the CWP

8.7.1 Cricklade

The market town of Cricklade is the largest settlement within the CWP. Although there is evidence of Iron Age tracks in the vicinity of the town, the Romans are attributed to its development as a settlement as they established a permanent crossing over the Thames on the low lying floodplain close to the confluence of Thames and Churn Rivers. The crossing formed part of the Roman's construction of Ermin Way. The settlement of Cricklade subsequently developed to the south of this crossing on land slightly elevated above the floodplain. Despite the Roman connection, it wasn't until the Saxon period that the town became an important fortified site as part of the defence of Wessex against the Danes. Today, the centre of the town is the best example in Britain of a late Saxon town with an intact Saxon street pattern, while the course of the Town Wall and ramparts can still be traced.

8.0 BUILT CHARACTER

The historic core of the town is characterised by two and three storey high buildings with a diversity of building materials ranging from timber framed to stone and brick, many of medieval origin. However, the influence of the Cotswold vernacular is evident with a preponderance of limestone as a strong influence on its character. The church of St Sampson with its large tower and four rounded turrets is a distinctive feature within the town. The current structure dates from the early 13th century and is a memorable landmark from the surrounding flat or gently undulating vale landscape.

The historic core is located immediately to the south of the Thames and the listed Town Bridge. Beyond this the land rises to the west and south west and it is here that the 20th and 21st century development has predominantly taken place. These peripheral residential and commercial areas affect the entrance into the town along the B4040 Malmesbury Road and the B4553 Cricklade Road from Purton and belie the attractive character of the historic core.

8.7.2 Lechlade-on-Thames

The small market town of Lechlade-on-Thames is located at the confluence of the Rivers Thames, Leach and Coln within the broad low lying floodplain of the Upper Thames vale. From archaeological evidence Lechlade has been a favoured place to live since the Neolithic period as several Neolithic sites have been discovered in the area. The Romans also occupied the area as two villas have been excavated in the vicinity of the town. A Saxon cemetery has also been excavated with evidence that it was in use during the early 7th century. An important crossing point of the Thames to the south of the town was originally by means of a ford but subsequently replaced by a toll bridge, built nearby in 1792 and known still today as 'Halfpenny Bridge' as this was the toll levied. The tollhouse still stands on the bridge.

Lechlade-on-Thames was an important focus for the Cotswold wool trade and also prospered, along with nearby Fairford, as a staging post for traffic. The Thames and Severn Canal also brought further trade and goods to the area. The prosperity of this small town is represented by the many fine town houses within its historic core dating form the 16th to 18th centuries. There are also more modest dwellings but they all share the distinctive Cotswold vernacular and mellowed limestone. The historic core of Lechlade-on-Thames is focused around its market place, which is dominated by the Cotswold wool church of St Lawrence, the current form of which was completed in the late 15th century. Its slender spire is a notable landmark in views across the river meadows. Beyond the historic heart of the town, new development has taken place to the north adjacent to the A361 and also on the western side of the town.

8.7.3 Fairford

The small market town of Fairford is located adjacent to the River Coln. The first written evidence of Fairford dates to AD850 when the town was mentioned in the transferring of land to the Abbess of the Church of Gloucester. There is evidence of occupation of the settlement area since the Iron Age and finds from this period, the Romans and from Saxon settlements have been discovered throughout the town. In 1850 an Anglo-Saxon cemetery was excavated.

Fairford's early prosperity derived from the medieval wool trade and the church of St Mary the Virgin built in 1497 is testament to the wealthy wool merchants. Although the wealth of the town declined with the wool trade in the late medieval period prosperity was rekindled in the 18th century when much of the High Street was rebuilt to service the increasing trade on the main coaching routes on which Fairford stands. The mellow limestone of the historic core of the settlement is typical of the Cotswold vernacular and there are many fine 18th century dwellings as well as the medieval church which remains as a notable landmark.

8.7.4 Ashton Keynes

The village of Ashton Keynes is a compact nuclear settlement located adjacent to the River Thames on the southern perimeter of the Western Section of the CWP. The course of the juvenile Thames within the village is a particularly distinctive feature as it flows through the core of the village and is crossed by a number of small stone bridges. There is a preponderance of predominantly two storey Cotswold stone dwellings in random rubble, many dating to the 18th century, with a mix of roof materials of stone tiles, slate, thatch or clay tiles.

Archaeological evidence has confirmed that the area occupied by the village has been populated since the Iron Age and a Romano-British settlement was excavated on the edge of the village prior to gravel extraction activities. The current settlement was present in the Saxon period and is mentioned in the Domesday Book. Other notable historic features comprise a medieval ring and bailey earthwork on the northern edge of the settlement and a moated medieval site at Church Farm. There is also the site of a 12th century castle built by the local Keynes family, wealthy Lords of the Manor who used the castle as the family home into the 13th century.

Although the village is contained by lakes to the west, north and east it has retained a predominantly self contained character and the historic core remains detached from the surrounding wetland areas and enclosed on many sections by planted or regenerating woodland.

8.7.5 South Cerney

South Cerney is a large thriving village located on the northern perimeter of the western section of the Water Park, and surrounded by lakes on its southern and eastern margins. The village is largely based on a cruciform with an east-west and north-south road pattern. The River Churn bisects the village and its channelled course forms an integral part of the settlement and a distinctive feature.

Although there was Roman occupation of the wider area surrounding the settlement linked to the adjacent Roman town of CORINIVM (Cirencester), the first evidence of a settlement at South Cerney dates back to the late Saxon period with a Charter granted in AD999. The Domesday Survey confirms that the land was under a manorial system. Archaeological evidence shows that by the 15th to 16th centuries the centre of the village probably accords with the current location. The Church of All Hallows has Norman origins although altered and extended in the 14th century.

Within the historic core of the village, the older houses date from the late 16th and early 17th centuries and are linked to the dissolution of the monastries and the break up of the manorial estates into a number of farms. This period marked the commencement of building in the typical Cotswold vernacular.

Today South Cerney is a mixture of limestone cottages and occasional larger houses lining the historic street pattern with buildings typical of the Cotswolds vernacular. Much of the walling is squared or dressed rubble with stone slate roofs as well as more recent Welsh slate and tiles. Beyond are modern housing estates of private and local authority properties in the newer parts of the village to the south and east.

8.8 Airfield Sites: Disused and Current

The flat landform and open areas within the Upper Thames Vale made the area a favourable location for airfield sites. As a consequence there are a number of former airfields within the CWP which now represent notable 20th century historic features and are representative of an earlier period of defence. Indeed some of the airfields were established in preparation for the D-Day landings taking advantage not only of the landform characteristics but the strategically remote location that the series of sites provided. Nearly all of these airfields are no longer functional, and have been absorbed into other land uses. However, RAF Fairford remains as a major and fully operational military airfield with USAF interests.

Disused Airfield sites:

- Down Ampney Airfield is located in the central part the CWP. The general configuration of the runway alignment and airfield boundary is still present but plantation woodlands have been established on the perimeter and aligned to the runways so have largely absorbed the presence of the airfield site into the wider landscape. The large areas of woodlands contribute to the expansive character of this part of the CWP.
- South Cerney Airfield is located to the south east of the South Cerney Army Station and to the west of the A419. Although the airfield is disused the military buildings still remain so it has retained its inherent character.
- Blakehill Airfield to the south west of Cricklade has undergone a remarkable transformation in recent years. Once the home to Dakotas the site has now been acquired by the Wiltshire Wildlife Trust and since 2000 has been managed to progressively enhance the species rich grassland that has developed on the area, and now supports a rich variety of wildlife. Now renamed as the Blakehill Farm Nature Reserve., it occupies an extensive area, but remains largely unseen due to the relatively level ground and screening from roads by hedges.

Functioning Airfields:

- RAF Fairford occupies a substantial tract of land in the central part of the CWP between the settlements of Marston Meysey to the west and Kempsford and Whelford to the east. Military restrictions limit access to the Airfield but the scale and impact of the site and its associated buildings is evident from the public roads that follow the perimeter. However, the flat landform and intervening woodlands and hedgerows have resulted in the airfield remaining largely unobtrusive in the wider landscape so visual impact is limited. Nevertheless, the sound from active flying is a regular reminder of its presence.
- Kemble Airfield is located outside of the CWP site area, on the western perimeter. It continues to function as a private airfield and the small aircraft that use the site are frequently evident in the skies.

8.9 Road Infrastructure

The CWP and wider study area is linked by a hierarchy of major to local roads that reflect the historical development of communication routes over the many centuries dating back to the Roman period and earlier. A number of major routes serve the area, notably the A417 along its northern periphery, and the A419 that separates the Western and Central parts of the CWP and follows the route of the Roman Road of Ermin Way. This latter route provides a sub regional link between the M4 and M5. In addition to this network of major roads, the broadly east-west aligned Western Spine Road transects the western part of the CWP. This follows a route to the south of Somerford Keynes linking into the B4696 north of Ashton Keynes and Cerney Wick. The Eastern Spine Road crosses the central and eastern section of the CWP and follows minor roads from the A419 junction north of Cricklade to the A417 east of Fairford via the settlements of Kempsford and Whelford. Set below this road system is a smaller scale network of minor rural roads that provide connectivity between the many rural settlements and isolated farmsteads. Travelling on these local roads can impart a strong sense of rural isolation in contrast with the busier and more developed sections of the CWP.

LANDSCAPE CHARACTER ASSESSMENT APPROACH 9.0

9.1 Introduction

This Landscape Character Assessment of the CWP provides a detailed review and a descriptive map of the study area's landscape. It recognises that all landscapes matter, not just those that are particularly well known, or evoke strong images. The assessment acknowledges that each landscape character type and landscape character area has a distinct, recognisable and consistent pattern of elements that makes it different from another. Character gives each part of the landscape a particular sense of place, regardless of perceptions of quality or value. The assessment provides a new descriptive map of the county at a current baseline time of 2003 when the field assessment was undertaken, and draws attention to the contrasts in landscape character that are so often taken for granted.

This Landscape Character Assessment of the CWP describes and classifies the character of the study area's landscape at 2006-7 and provides a baseline resource for a future Landscape Strategy. It also provides a further update on the wider context and influences on landscape character drawing from the more recent baseline information and finding in the Strategic Review that was published in July 2008. In view of the dynamic nature of the CWP, it captures a record at a single point in time of a constantly evolving and changing landscape character. It also provides a baseline record against which future changes can be compared and monitored and a reference for developing a Landscape Strategy and management guidelines linked to the future development of the Water Park.

9.2 Landscape Character Types and Landscape Character Areas

The *'Landscape Character Assessment Guidance'*, 2002 published by the former Countryside Agency and Scottish Natural Heritage sets out the methodology and spatial hierarchy for the landscape character assessment process with a top down cascade from the National Typology down to local level. It also sets out the distinction between and nature of Landscape Character Types and Areas, recognising that each type and area has a distinct, recognisable and consistent pattern of elements that makes it different from another.

- **Landscape Character Types** are distinct types of landscape that are relatively homogeneous in character. They are generic in nature in that they may occur in different parts of the country, but wherever they occur they share broadly similar combinations of geology, landform, drainage patterns, vegetation, and historical land use and settlement pattern.
- **Landscape Character Areas** are single, unique areas and form discrete geographical areas of a specific landscape type.

9.3 An Objective Approach

An important feature of the approach adopted in this Landscape Character Assessment is that it is objective. The underlying principle is that all landscapes matter and not just those which are designated or are regarded as being of higher quality than others, so no judgement is made of a particular landscape's value, or whether it is of higher quality than others. Written descriptions avoid value-laden terminology such as beautiful, bland, attractive and degraded, although attention is given to identifying characteristics that are distinctive, rare or special. In this way, the descriptions help raise awareness of an area's local distinctiveness and encourage appreciation of variations in character across the study area.

9.4 Identification of the Landscape Character Types and Areas

This assessment has used the county level Landscape Character Assessments prepared by Gloucestershire and Wiltshire as the principal reference source for determining the distribution of Landscape Character Types across the study area. Reference was also made to the Oxfordshire Wildlife and Landscape Study (OWLS) in respect of the very small area of this county that extends into the eastern section of the study area. In contrast to the Gloucestershire and Wiltshire assessments, the OWLS approach examined the landscape at a more detailed level, equating a classification of local landscape types. Because of this different level of resolution, the Oxfordshire Landscape Types did not marry into the boundaries of the Types within the counties to the west. However, it was possible to integrate the county findings at a broader level. Following a desk review of these adjacent typologies, the distribution of the county level Landscape Character Types was subsequently verified and refined through field assessment and further desk study.

Reference was also made to the landscape character assessments undertaken by the district and borough authorities that extend across the area, particularly where they have been undertaken at a more detailed level. Through this, their findings have guided the final verification and refinement of the Landscape Character Types / Area boundaries and also their naming. The North Wiltshire District Assessment in particular provided a valuable source of reference in the process of classification of the Landscape Character Types and refinements to the boundaries.

9.0 LANDSCAPE CHARACTER ASSESSMENT APPROACH

Reference was also made to the wealth of descriptive text that has been prepared by the various authorities in respect of their Landscape Character Assessment. Where appropriate these descriptions have been integrated into the text that follows.

Building upon this approach and methodology, the Landscape Character Assessment has identified a total of 5 Landscape Character Types and 13 Landscape Character Areas across the Cotswold Water Park study area. These are listed in *Table 3* at the end of this section and their distribution shown on *Figure 14*.

Following this introduction, and the Summary Table, each of the generic landscape types is described. The key characteristics are summarised followed by a review of landscape character, and the physical and human influences that have shaped the landscape and contributed to its character. This is followed by a description of the geographically unique Landscape Character Areas that occur within each Landscape Character Type, and a summary of the principal features that are particular to each.

9.5 Descriptions of Small Sections of Landscape Character Types and Areas

Some of the Landscape Character Types on the margins of the study area occupy a very small fragment of a much wider representation of the type that extends well beyond the boundary of the Cotswold Water Park. These comprise fragments of the Dip Slope Limestone Lowland, which occur within a narrow belt of land along the northern margin of the study area; and a small section of the Limestone Ridge where Lus Hill extends into the south-eastern part of the study area. In the south-western part of the study area, to the south of Pool Keynes, a small area of Limestone Lowland also occurs, as classified in the Wiltshire Assessment. However, this has been integrated with the neighbouring Cornbrash Limestone Lowland immediately to the north as the area is underlain by this rock formation.

For completion, full descriptions are provided of the Landscape Character Types that these small areas form part of. Because they apply to a much larger area, some of the descriptions may not fully apply to the detached fragments of land that fall within the study area. This also applies to the Landscape Character Area descriptions as these also address a wider area of which these areas only form a small part. Where appropriate, however, reference is made to relevant local detail in respect of the land that falls within the study area.

9.6 Evaluation of Landscape Character Types

Following on from the description of the Landscape Character Types and the Landscape Character Areas that fall within these types, an evaluation of each of the Character Types is provided. This commences with a description of the positive landscape features of significance within the Type, and the principal Forces for Change that have and are likely to affect future landscape change and management processes. Following on from this, Threats and Opportunities are examined followed by an overall evaluation of the Condition and Strength of Character. Finally, the inherent Landscape Sensitivities for the type are described.

It should be noted that a single 'blanket' evaluation of each of the types in respect of Condition and Strength of Character should be treated with some caution. While it can be helpful to provide a generalised assessment that represents an average of the overall state of each of these items, in practice both condition and strength of character can vary across the Type and Character Areas at a more local scale. It is essential, therefore, that any Landscape Strategy guidance that is developed, following on from the examination and evaluation of the Types, takes account of local variations and does not apply a single and inflexible approach to strategic decisions and management objectives and guidance.

The overall Condition has been classified as **Good**, **Medium** and **Poor**. In respect of the Strength of Character this has been classified as **High**, **Moderate** and **Low**.

9.7 Forces for Change

Within the Evaluation section, a summary of the principal Forces for Change is set out for each Landscape Character Type. Within the context and scale of the Cotswold Water Park it is inevitable these Forces for Change will be generally similar for each Type as they are determined in relation to broader changes that affect the entire area such as agricultural change and management patterns in relation to government legislation and payments, socio-economic changes and influences on the area, and the broader longer term effects of climate change. Nevertheless, variations in the Forces for Change are evident between those types where agriculture is the predominant land use, such as the Cornbrash Limestone Lowlands, in contrast to the River Basin Clay Vale. In this latter Type, there is a greater range of Forces for Change as a result of the interaction of the ongoing processes of gravel extraction, lake and wetland creation and restoration,

the management of the biodiversity resource and the focus of and provision for leisure and recreation activities and other related development activities and associated infrastructure.

Although many of the Forces for Change are common to each Landscape Character Type, for completion they are repeated for each Type. This will ensure that where the review is confined to a single Landscape Character Type only, perhaps in relation to an examination of a particular area or site, the 'full' story in relation to the Forces for Change is provided and in relation to other aspects of the Evaluation of the Type such as the Threats and Opportunities and Condition Statement.

9.8 Boundary Determination of Landscape Character Type and Areas

The boundaries of the Landscape Character Types and Areas were initially mapped to 1:50,000 scale, using the range of data sets that were made available at this scale, and subsequently verified and refined in the field. Reference to 1:25,000 scale maps was also made as an integral part of the desk study and throughout the field studies, to provide a more informed and detailed analysis of mapped features, including the pattern of field sizes and types. The final mapping of the boundary lines was undertaken at 1:25,000 scale and mapped on GIS.

Landscape character rarely changes abruptly or follows clearly defined lines on the ground, and as a consequence the boundaries that have been defined for the Landscape Character Types and Areas should be considered as transitional. This is evident, for example, in the subtle transition from the Dip-Slope Lowland to the Cornbrash Lowlands in the northern perimeter of the study area, and also the River Basin Clay Vale area. Other types are more clearly defined, however, such as the small area of Limestone Ridge in the south-eastern perimeter of the study area. Here, the locally prominent Lus Hill rises above the surrounding Rolling Clay Lowland Farmland to the north with the well defined break of slope enabling a more precise boundary to be identified. Nevertheless, even this distinctive morphological unit demonstrate some transitional characteristics where the base of the hillock merges with the surrounding lowland.

Despite the transitional nature of landscape character, the provision of a definitive line provides a clear reference point from which to commence the determination of specific outputs from the Landscape Character Assessment, including interrogation in GIS. Throughout this study, therefore, the boundaries to Landscape Character Types and Areas are all shown as definitive lines, mapped to 1:25,000 on GIS. In recognition of the transitional nature of landscape character, however, it is important to note that these boundary lines represent the centre line of the transition based on the determining features associated with geology, topography, soils, cultural patterns and land use. These are then refined to follow field boundaries or the perimeter of well-defined features such as woodlands, roads, tracks and occasionally footpaths.

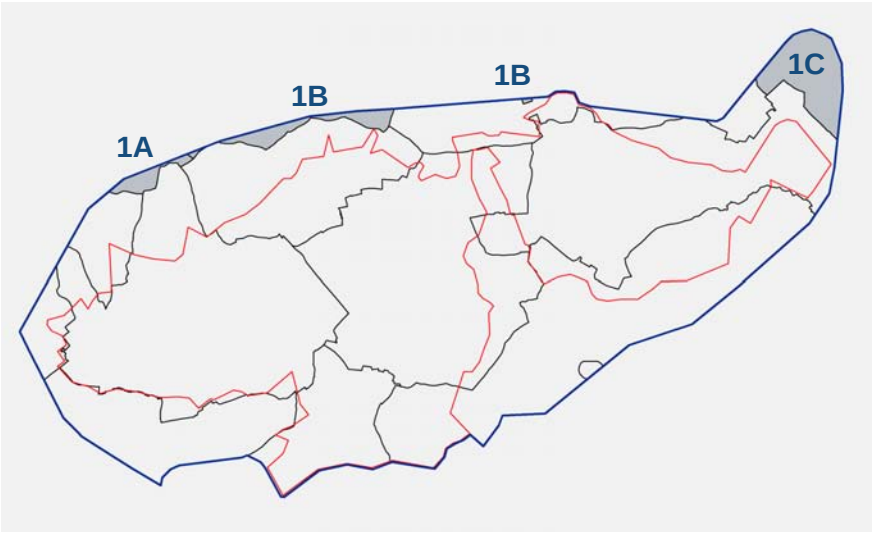
In many instances, the boundary lines were initially defined by contours where these correlated with a well-defined landform, a change in slope profile or a general height above Ordnance Datum, or a change in the underlying geology that resulted in a significant surface expression. The boundary lines were then drawn to the field boundaries that followed the closest correlation with the landform and mapped contours, or other identifiable features.

Where the assessment of a particular site or area is undertaken that falls close to, or within 0.5km of a boundary line, the characteristics and descriptions for each of the adjacent Landscape Character Types and Areas should be taken into consideration. This includes any future management strategies that may be developed. This is particularly important in the evaluation of and guiding management requirements, as well as in the consideration of the development of landscape and environmental projects. Such an approach is also important where there is a high degree of intervisibility between neighbouring landscapes. 'Borrowed' characteristics are important not just to the landscape they are in, but also to the landscape they are visible from.

9.0 LANDSCAPE CHARACTER ASSESSMENT APPROACH

Table 3: Landscape Character Types and Areas within the Cotswold Water Park Study Area

Landscape Character Type	Landscape Character Areas
Dip Slope Limestone Lowland	1A Kemble Lowlands 1B The Ampneys Lowlands 1C Langford Lowlands
Cornbrash Limestone Lowlands	2A Poole Keynes and Ewen Lowlands 2B Driffield Lowlands 2C Southrop Lowlands
River Basin Clay Vale	3A South Cerney and Ashton Keynes Settled Wetlands 3B Down Ampney and Meysey Clay Vale Farmland 3C Fairford and Lechlade Settled Wetlands 3D Swill and Derry Brook Clay Vale Farmland 3E Castle Eaton and Inglesham Clay Vale Farmland
Rolling Clay Lowland Farmland	4A Chelworth Rolling Clay Lowland
Settled Limestone Ridge	5A Lus Hill



CHARACTER AREAS

1A Kemble Lowlands

1B The Ampneys Lowlands

1C Langford Lowlands

5.1.1 Key Characteristics

- Broad area of gently sloping, undulating lowland with a predominantly south-easterly fall;
- Lowland landform gently dissected by infrequent small streams flowing towards the River Thames and its principal tributaries, and often inconspicuous within the landscape;
- Well-managed productive landscape with a general predominance of medium to large scale arable fields and smaller scale improved pastures;
- Seasonal variations in colour and texture associated with mixed arable farming;
- Boundaries comprise a network of hedgerows of varying quality, together with stone walls and post and wire fencing;
- Occasional woodland copses and shelterbelts, mainly geometric in form; and
- Settlement pattern of intermittent linear and nucleated villages, hamlets and isolated farmsteads.

5.1.2 Dip Slope Limestone Lowland within the Cotswold Water Park Study Area

The Dip Slope Limestone Lowland Landscape Type forms a broad swathe of land that extends across the south-eastern side of Gloucestershire and eastwards into neighbouring Wiltshire. Very small and fragmented areas of the Dip-Slope Limestone Lowland occur along the northern section of the study area. These are located to the south of Cirencester to the east and west of Siddington; two areas to the east and west of Ampney St Peter; and an area at the eastern limit of the

study area that extends into Oxfordshire in the vicinity of the villages of Little Faringdon and Langford. These areas form the southern limit of a broader swathe of Dip Slope Lowland that locally extends north and west into Gloucestershire, including the Cotswolds AONB. The southern perimeter of the type merges into the Cornbrash Limestone Lowlands and the outcrop of the Cornbrash Limestone.

5.1.3 Landscape Character

Underlying the Dip Slope Limestone Lowland are limestone formations of the Great Oolite Group, including outcrops of the Forest Marble Formation. It comprises an area of gently undulating lowland, approximately 150m AOD to 100m AOD, with a gentle fall from north-west to south-east. This area forms part of the Upper Thames catchment area with the western section located close to the source of the Thames. The area is crossed by the Thames tributaries that follow the regional south-easterly dip of the underlying strata, and therefore give the landscape a well-defined grain. Secondary tributary streams are generally infrequent, and where they do occur, they have gently dissected this lowland area resulting in local variations in landform.

10.1 The Character Types and Areas of the Cotswold Water Park
DIP SLOPE LIMESTONE LOWLAND

Agriculture is the principal land use, with much of the land under mixed arable and intermittent areas of improved pastures, with some permanent pasture predominantly within the valleys. It is generally well managed, within a mosaic of medium to large regular fields, mainly contained by hedgerows of varying quality. There are also areas where stone walls predominate, generally confined to land surrounding villages and adjacent to farms. Woodland is relatively limited, confined to a pattern of small deciduous or mixed copses and shelterbelts, and occasional larger areas of woodland and coniferous stands. Wide views are often possible across the landscape, although the succession of field boundaries intercepts views in a number of areas, creating a more intimate character.

A pattern of dispersed villages and hamlets extend across the Dip Slope Limestone Lowland, together with numerous isolated farmsteads and individual buildings. The Roman market town of Cirencester is the only large settlement within the area. A network of mainly direct local roads connect settlements, with a limited section of the A433 evident on the north-western edge of the Character Type, and sections of the A419(T), and A417(T) extending to the east and south-east from Cirencester. A main line railway also crosses the western section of the Landscape Type.

5.1.4 Physical Influences

The Dip Slope Limestone Lowland within the study area is located at the eastern and south-eastern limit of the outcrop of Oolitic Limestone within Gloucestershire and Wiltshire, and is underlain by a sequence of limestones and mudstones of the Great Oolite Group, including the Forest Marble Formation.

Drainage across the Dip Slope Limestone Lowland forms part of the Upper Thames catchment area. The Thames tributaries of the River Churn, Ampney Brook and River Coln cross the Dip Slope Lowland in north-west / south-east aligned valleys, following the dip of the underlying strata. Occasional smaller tributary streams and dry valleys link into these rivers, with the valley forms creating subtle but locally significant variations in the topography

Agricultural ‘improvements’ and ploughing up of much of the Dip Slope Limestone Lowland has significantly depleted the once extensive areas of traditionally managed pasture and calcareous grassland. A few remnants of calcareous as well as mesotrophic (neutral) grassland remain within the area, although their impact in the wider landscape is very limited. Ancient woodland is also sparse. Much of the woodland areas that cover the area today date from the previous two centuries and the period of enclosure, resulting in a ‘planned’ character. A pattern of geometric and linear plantations and shelterbelts therefore prevails.

5.1.5 Human Influences

The wider Dip Slope Limestone Lowland landscape is characterised by numerous prehistoric long barrows and burial mounds, although only one is evident on the edge of the Landscape Type, to the east of Quenington. Evidence of Roman occupation is also notable within the Upper Thames Valley sections of the character type, with a well defined network of Roman roads converging on the important Roman settlement of Cirencester (CORINIVM). These are represented by Akeman Street (B4425) and its extension as a local road linking to Quenington on the northern edge of the area; the Fosse Way on the north-western edge and to the east of Cirencester which is now followed by the A433; and Ermin Way, which is now the route of the A419 approach into Cirencester from the south-east, with links to the A417(T) which bypasses Cirencester to the east.

Field patterns across the Dip Slope Limestone Lowland comprise a mosaic of both irregular enclosure reflecting former unenclosed cultivation patterns, and regular enclosure that ignores former unenclosed cultivation patterns. In the study area, fields are predominantly medium to large scale and rectangular in form, although there are notable clusters of smaller scale fields surrounding the settlements, for example to the east of Ampney Crucis.

Formal recreation provision is generally limited, although numerous footpaths cross the landscape, including the Thames Path National Trail located in the west of the Landscape Type close to the source of the Thames.

Landmarks are limited within the landscape, but in places church towers and spires represent focal features and points of orientation within the lower lying landform. Although infrequent, pylon lines have a significant impact where they occur.

5.1.6 Buildings and Settlement

Settlement within the Dip Slope Limestone Lowland is relatively limited, with a dispersed pattern of villages and hamlets. There is a notable cluster of villages to the north of Ampney Brook, however, comprising the linked villages of Ampney Crucis, Ampney St Peter and Ampney St Mary. Aligning the minor road network, the villages frequently have a linear form, although a few display a more nucleated morphology as at Ampney St Mary. Isolated farms and individual dwellings are evident across the landscape, often located adjacent to roads or at the end of short lanes and tracks off roads.

The use of Cotswolds stone for buildings and walls, and tiles or 'slates' for roofing is evident across the type, contributing much to the character of local buildings and local vernacular. Kemble, the largest settlement within the Landscape Type, is located in the western section of the Dip Slope Lowland, and is served by a main line railway Station, with direct links to London Paddington.

Kemble Airfield, a former military air base, is located to the west of Kemble, on the southern perimeter of the county, and also extending into Wiltshire. Part of the Airfield has been converted for industrial and commercial uses, and now accommodates a number of large scale buildings that are prominent features within the wider landscape.

5.1.7 Landscape Character Areas

1A Kemble Lowlands

The Kemble Lowlands Character Area forms an extension of the wider Dip Slope to the north and west. Within Gloucestershire, it extends from Kemble Airfield in the west to the southern limits of Cirencester in the east. The Character Area also merges seamlessly with the broader Limestone Lowland Character Area defined in Wiltshire's Assessment, classified as the Malmesbury – Corsham Limestone Lowlands. The Character Area is principally underlain by Great Oolite Group limestones, and in some areas by the Forest Marble Formation. Alluvium of sand, clay and gravel is evident along minor tributaries aligned north-west, south-east across the Character Area, including the upper reaches of the River Thames valley and sections of the River Churn.

The area has a gently sloping mainly south-easterly grain with more subtle undulations and shallower slope profile than the Dip Slope Limestone Character Type further north. Within the Character Area, however, small tributary watercourses are evident, including the upper reaches of the River Thames to the north-east of Kemble, and the River Churn south of Cirencester. These watercourses are often marked by scattered trees and scrubby vegetation. Underlying the shallow valleys of the watercourses is a narrow band of alluvial sand, clay and silt.

A consistent pattern of well managed, productive mixed arable and grazed pastoral fields extends across the area, with a predominance of large scale arable fields resulting in a simple, uniform landscape in places. Pastoral fields are scattered across the area, although concentrations occur on the periphery of settlements and in areas along the line of a dismantled railway that is largely confined to the south of the area. Intermittent areas of calcareous grassland are also scattered across the Kemble Lowlands. The fields are enclosed either by low stone walls, or hedgerows of varying condition.

Whilst woodlands are not extensive, where they do occur they are generally small to medium in scale, geometric in form, and predominantly of broadleaved or mixed composition. Large scale woodland blocks are infrequent, the most notable being Kemble Wood, an area of ancient semi natural woodland which is also designated as a Key Wildlife Site. Prominent tree lines also align some sections of the dismantled railway between Kemble and Cirencester. Notable vegetation associations have developed within some of the railway cuttings that cross the character area and these areas are designated as SSSIs. In some areas, the presence of overgrown hedgerows, together with the intermittent woodland copses, combine in places to create the impression of a well treed character. Woodlands within the surrounding landscape to the north and south also often punctuate the horizon and restrict long distance views.

The Character Area retains a largely rural character, and beyond the largest settlement of Kemble, there is a pattern of scattered farmsteads and detached dwellings. The village of Kemble, located in the south-western section of the character area, is divided by the A429. The settlement contains both old stone dwellings and modern infill development, with the older historic core designated as a Conservation Area. Located in the

southern section of Kemble, stone buildings surround a village green and include the village church with its prominent spire that forms a local landmark. Kemble is located on the main line railway with a Station located on the north-western edge of the village that provides direct links to London Paddington. With this transport link to the capital, more recent residential development within the village reflects its growing role as a commuter settlement.

Despite the predominantly rural character of the Kemble Lowlands, urbanising influences become increasingly evident on the perimeter of Cirencester with post war and modern housing and large scale industrial buildings extending up to the farmland that surrounds the town.

Apart from the network of minor roads which largely follow the grain of the landscape, the A433 Fosse Way Roman road follows the north-western boundary, and the A429 also cuts across the character area High voltage pylons also have an influence on the landscape, particularly in close proximity to Cirencester. Kemble Airfield is a notable feature within the landscape, and largely within Wiltshire. The industrial and developed character contrasts with the surrounding agricultural landscape. Large scale industrial units and converted hangars, together with scattered woodland blocks punctuate the landscape, which in this area is particularly flat in character. The former MOD airfield is currently used by light aircraft and support services for the aircraft industry, as well as being home to a motor sports track.

Archaeological remains and heritage links are generally limited, and include the Fosse Way, the remains of a settlement to the south-east of Chesterton Farm and designated as a Scheduled Ancient Monument (SAM), and a tithe barn to the south of Cirencester, also designated as a SAM.

1B The Ampneys Lowlands

The Ampneys Lowlands Character Area forms an extension of the wider Dip Slope Limestone Lowland to the north, and extends from the eastern edge of Cirencester to the east of Quenington. Within the eastern section, the Lower Coln Valley Character Area extends across the Dip Slope Limestone Lowland resulting in a small and detached area to the east of Quenington. Underlying the Character Area is a predominance of Great Oolite Group limestones with areas of Forest Marble Formation. Limited areas of drift deposit are also present, most notably along the valleys of minor brooks within the Character Area, including the Winterwell and Ampney Brook. In such areas, alluvial silty clays predominate, with areas of boulder clay associated with minor undulations across the Dip Slope Limestone Lowland.

Generally falling below 140m AOD, the character area has a gently sloping, mainly south-easterly grain with subtle undulations, frequently marked by minor watercourses or dry valleys. The most notable watercourse is the Ampney Brook, which flows adjacent to the A417 and also through the villages of Ampney Crucis and Ampney St Peter. The main course of the brook is also designated as a Key Wildlife Site. Flowing into the brook from the north is a network of minor tributary streams, a number of which pass through, or in close proximity of the village of Ampney St Mary. The brook meanders through the landscape, frequently surrounded by small scale rushy pastures, with only occasional scattered trees and scrub marking its course.

Large scale, well managed arable fields generally predominate, interspersed with pastoral fields often small in scale, both improved and with evidence of scrub encroachment. Concentrations of grazed pastures occur mainly within the subtle undulations and valleys marked by watercourses, with occasional fields of set aside pasture and calcareous grassland. As with the wider Dip Slope Limestone Lowland landscape, fields are enclosed by both stone walls and hedgerows of varying condition. A number of small disused quarries,

known locally as delves, are evident within the area, and likely to once have been a source of stone for field boundary construction or for local buildings. Where hedgerows are present, wooden post and wire or post and rail fences reinforce the hedgerows where they have become gappy. Occasional mature trees are scattered along field boundaries, and where hedgerows have become overgrown, they are often perceived as tree lines across the landscape, combining areas with small woodland copses to create the local impression of a relatively well treed landscape. Whilst significant woodland blocks are not characteristic of the Dip Slope Limestone Lowland, a number of small copses, predominantly with a mixed or deciduous composition are scattered across the area, with more evident to the west between Cirencester and Ampney St Peter. In a number of views, these small blocks combine to create a moderately well wooded horizon. Although limited as a whole, ancient semi-natural woodland can be found at Lea Wood and Coneygar Wood, to the south-east and north-west of Quenington respectively, both of which are also designated as Key Wildlife Sites.

Villages and hamlets are scattered across the Character Area, with a greater concentration to the west. The majority of villages have a broadly linear form, for example at Ampney Crucis. This village is mentioned in the Domesday Book, and it is believed that a Roman settlement extending to 4 hectares once occupied its footprint. The church is of Saxon origin. By contrast, Ampney St Peter, which is located along the A417, and Ampney St Mary both have a more compact and nuclear form. All the Ampney villages, together with Poulton, are designated as Conservation Areas. Ampney Park, on the western edge of Ampney Crucis is set within designed parkland, and although privately owned, the imposing entrance gates are a notable feature on the A417. Beyond the main settled areas is a pattern of scattered farms and dwellings, often accessed via a network of minor tracks, but also located adjacent to roadsides. Surrounding a number of farms are small rectangular woodland copses providing a sense of enclosure and shelter to the farm buildings.

On the western side of the Character Area, a network of principal roads diverge on Cirencester, notably the A417, A417(T), and the A419. These form part of the system of Roman roads that link into the town and signify the importance of the settlement during the Roman occupation. Beyond this, a network of minor country roads, broadly aligned north-south and east-west, connect the smaller settlements. The frequently low boundaries bordering the road network allow open and often panoramic views across the landscape towards the wider Upper Thames River Basin Clay Vale to the south. One of these minor roads bordering the northern boundary of the Character Area, and marking the southern edge of the Cotswolds AONB, is the Roman road of Akeman Street. A further section of Roman road east of Cirencester and close to the western boundary of the character area aligns with the A429 Stow Road.

There is little in the way of formal recreational provision within the Character Area, the main emphasis being on the network of public rights of way that cross the landscape.

1C Langford Lowlands

The Langford Lowlands Character Area is located in the eastern limit of the study area and includes the small area of land that extends into Oxfordshire. The area is separated from the adjacent Ampneys Lowlands to the west by the valley bottom of the River Leach. In these lower reaches of the valley, the river flows south-easterly towards its confluence with the Thames at St John's Bridge within the adjacent River Basin Clay Vale. A minor watercourse, the Langford Brook flows across the Character Area, rising from springs to the south of the village of Broughton Poggs.

Although there is a gradual fall to the south-east, the area gives the general impression of being flat. The exception to this is the locally distinctive hillock to the north-east of Little Faringdon that rises some 15m above the surrounding levels. Although this is a modest elevation, its visual prominence is enhanced by the presence of the mainly deciduous Little Faringdon Wood that covers the southern slopes of the hill.

The land use comprises a mix of semi-improved pasture and arable farmland in medium to large sized fields enclosed by hedgerows which range from tall and outgrown in some areas, particularly along the road sides, to low and close cut elsewhere. Hedgerows mainly comprise thorn although elm suckers are also evident. Hedgerow trees are present, and because they are often very intermittent, their presence is locally important. They predominantly comprise mature oak and ash, together with willow, notably adjacent to the Langford Brook but also on local areas of impeded

drainage. Intermittent sections of the Brook are also lined by denser areas of vegetation comprising ash, crack willow and overgrown hawthorn and blackthorn scrub.

While woodland is generally sparse there are a few small, geometric woodlands present in addition to the prominent Little Faringdon Wood, notably Furzy Knoll Plantation and Hookit's Plantation which are linked by a narrow linear belt of trees. Their names imply that they were planned areas of woodland, possibly as shelterbelts or game coverts, and may date back to the enclosure period. Small woodland copses of ash, willow and hawthorn are characteristic around the villages and at field corners next to roadside hedges.

Within the study area the Character Area is sparsely settled and confined to the small linear village of Little Faringdon, and a number of dispersed farmsteads. The village has a distinct linear form and predominantly constructed in Cotswold Stone. Beyond the study area, this Character Area extends north-east to include the linked villages of Broughton Poggs and Filkins, and to the south-east, the village of Langford. These latter settlements all display a compact and nuclear form and contribute to a rural settled character.

This quiet rural area is served by a simple network of rectilinear minor roads that link the local villages and provide access to the farmsteads. The area is also crossed by one main road comprising the A361.

There is no formal recreational provision within the Character Area, the main emphasis being on the network of public rights of way that cross the landscape.

Evaluation of the Dip Slope Limestone Lowland Landscape Type

The Dip Slope Limestone Lowland Landscape Type shares similar characteristics and management challenges and opportunities to the Cornbrash Limestone Lowlands (Section 10.2). As a consequence the evaluation summaries for these two areas are broadly similar.

As noted in Section 9.5, the area represented by this Landscape Type within the CWP study area is very limited and forms a small fragment on the margin of a much larger area extending across the Dip Slope Lowland. The evaluation descriptions are therefore applicable to this wider area.

Positive Landscape Features of Significance

- Peaceful rural landscape with subtle variations in character and enclosure;
- Productive agricultural landscape of improved pasture and arable land with a well managed character;
- Seasonal variations in colour and texture associated with arable farming providing visual diversity;
- Strong network of hedgerows with hedgerow trees interspersed with dry stone walls defining a mosaic of medium to large scale agricultural fields;
- Intermittent woodland copses and rectilinear shelterbelts forming prominent features and local enclosure;
- Occasional areas of ancient woodland and remnants of calcareous and neutral grassland imparting a richness to the local landscape;
- Broad panoramas and distant views to the chalk escarpment of the Marlborough Downs from more open and elevated areas;
- Occasional historic houses and associated parklands and more formal planting within the wider landscape beyond the CWP;
- Dispersed pattern of limestone villages, hamlets and farmsteads displaying the distinctive Cotswolds local vernacular; and
- Network of quiet rural roads with little through traffic contributing to the remote character.

Forces for Change

- Agricultural land management changes in response to a shift from a subsidy based to an open market driven economy linked to the Single Farm Payment (SFP), and wider effects of rising cost of fuel and world food shortages;
- Requirement for farmers and landowners to meet 'Good Environmental and Agricultural Conditions' (GAEC) under the SFP leading to environmental benefits;
- Population increase and demographic changes leading to pressure for new development around existing settlements, including more affordable housing and retirement dwellings;
- Increasing traffic on both principal and narrower local rural lane networks as a consequence of increase in resident population, visitors to the CWP and commercial traffic; and
- Climate Change affecting long term changes in: habitats and patterns of species movement, and potential decline or vulnerability of habitats; crop types within agricultural land; and potential introduction of biofuels to contribute to renewable energy targets.

Threats and Opportunities

- Conflicts in agricultural land management practices, with the need to farm more intensively in response to effects of world commodity prices and market trends balanced against the wider aspiration for farmers to manage their land in an environmentally beneficial way as 'stewards of the environment'.
- Potential amalgamation and enlargement of arable land in response to more intensive farming methods resulting in increase in perceived scale of landscape;
- Decline in quality of agricultural land, with loss of or poor management of hedgerows and mature hedgerow trees and boundaries, and decline in pasture, particularly at settlement fringes, through equestrian use or poor stewardship;
- Reduction in areas of developing biodiversity interest linked to withdrawal of set aside land;
- Increasing demand for biofuel crops through renewable energy targets and market forces and potential effects on landscape character through introduction of crops such as Miscanthus and short rotation Willow;
- Loss of or further deterioration of dry stone walls and unlikelihood of replacement due to increasing costs of building and maintenance;
- Opportunities and benefits for landscape character and biodiversity enhancement arising from the take up of Higher and Entry Level Environmental Stewardship schemes;
- Continuing pressure on rural settlements for new dwellings and effect on their morphology and character;
- Dilution or imitation of Cotswolds local vernacular; use of inappropriate materials; 'suburban' styles and detailing; and loss of spaces between dwellings affecting historic and visual interrelationships;
- Counterbalance of opportunities for enrichment of settlement character and form through appropriate sensitively designed and located development that complements the existing built and settlement form but also reflects contemporary design;
- Diminution of rural tranquillity through increased traffic particularly on local road network;
- Standardisation of road network and particularly the narrower local rural lanes through alignment improvements, introduction of kerbing, lighting, 'amenity planting' and signage, and effect on historic patterns of movements between settlements and their local character; and
- Opportunities for implementation of environmental enhancement within settlements and provision of wider access to the surrounding rural landscape.

Condition Statement

The condition of the Dip Slope Limestone Lowland Landscape Type is generally **Good** with intact hedgerows and dry stone walls, and traditional villages of vernacular stone dwellings. In some areas, however, there is evidence of elements in **Poor** condition such as gappy and flailed hedgerows; and old stone walls, either in a dilapidated condition or obscured by outgrown hedgerows. In some villages there are inappropriate buildings that do not accord with the Cotswold vernacular or adversely affect the overall condition and character of the settlement. An increase in equestrian pastures located close to a number of the settlements, and the associated temporary fences, devalue the otherwise strong unity and condition of the setting of the villages, many of which are designated as Conservation Areas.

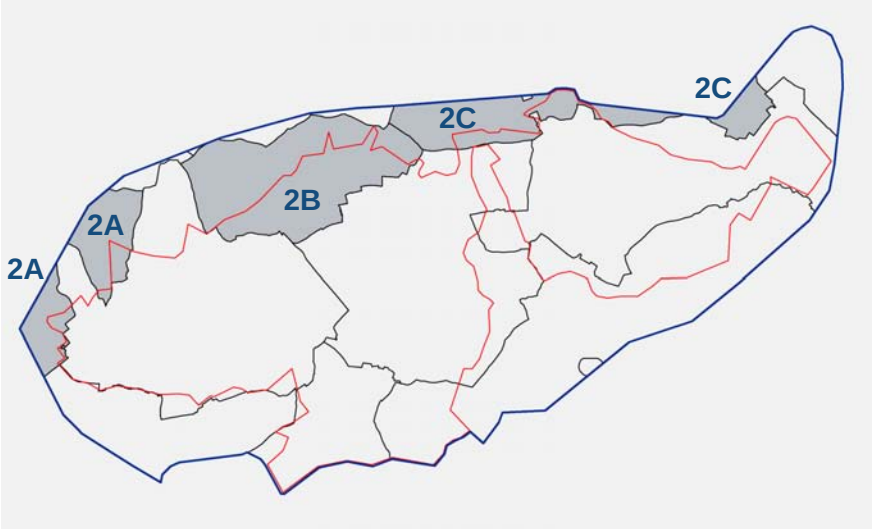
10.1 The Character Types and Areas of the Cotswold Water Park
DIP SLOPE LIMESTONE LOWLAND

Strength of Character

The traditional limestone settlements within the wider area of the Dip Slope Limestone Lowland Landscape Type create a strong and unified character. This is further reinforced by the presence of dry stone walls to both field and property boundaries. However, other elements such as the agricultural land use, landform and field boundaries vary subtly across the type and as a consequence make it less distinctive and cohesive. The strength of character overall is therefore judged as **Moderate**.

Inherent Landscape Sensitivities

- Peaceful, rural and remote nature of the area;
- The character and quality of the agricultural landscape;
- The traditional structure and visual unity and setting of the village settlements with many dwellings displaying characteristics that are typical of the local vernacular;
- The remaining network of dry stone walls particularly around and close to settlements;
- Areas of high ecological value including ancient woodland and unimproved grasslands;
- Evidence of past occupation including enclosure fields, areas of historic parkland, Roman road network, medieval settlement sites and prehistoric earthworks.



CHARACTER AREAS

2A Poole Keynes and Ewen Lowlands

2B Driffield Lowlands

2C Southrop Lowlands

5.2.1 Key Characteristics

- Very gently sloping landform with subtle undulations linked to small scale tributary valleys that cross the area;
- Network of tributary streams draining from the Dip-Slope Limestone Lowland towards the River Thames, their course often marked by scattered lines and groups of trees;
- Predominance of large scale arable fields bounded by a network of hedgerows of varying quality and occasional stone walls;
- Vertical elements such as hedgerow trees gain visual prominence;
- Fertile soils derived from the Cornbrash Formation bedrock;
- Dispersed settlement pattern of mainly linear or nucleated villages, hamlets and farmsteads;
- Occasional mainly geometric woodland copses, comprising broadleaf and coniferous plantations;
- Single principal road bounds or crosses the area together with a limited number of local, and generally straight rural roads; and
- Occasional wide views over productive farmland, limited only by farm copses and woodlands.

5.2.2 Cornbrash Limestone Lowlands within the Cotswold Water Park Study Area

The Cornbrash Lowlands extend along the northern perimeter of the Cotswold Water Park study area, and extend across an area 2-3 km in width. The upper reaches of the River Thames and the broad valley of the River Churn dissect the Cornbrash Lowlands between Cirencester and South Cerney to form a series of separate areas.

5.2.3 Landscape Character

The area is underlain by the Middle Jurassic Cornbrash Formation and forms a transition between the Dip-Slope Limestone Lowland landscapes to the north, and the generally flatter River Basin Clay Vale of the Thames to the south. The area is characterised by a subdued topography, with gentle undulations where the Thames tributaries and their smaller interconnecting tributary valleys extend across the area. The rich and fertile soils derived from the underlying Cornbrash Formation support a land use focused on arable cultivation, together with more limited pastoral areas, principally utilising wetter areas of land bordering watercourses.

10.2 The Character Types and Areas of the Cotswold Water Park
CORNBRASH LIMESTONE LOWLANDS

The area has a predominantly quiet rural character associated with the cultivated arable fields, and a dispersed pattern of small villages, hamlets and farms. Occasional woodlands, mainly geometric in form, and comprising both broadleaved, and mixed coniferous and broadleaf plantations, are present within the area. These provide local enclosure and landmarks within an otherwise undistinguished agricultural landscape. A single major road, comprising the A417, crosses or borders the Cornbrash Limestone Lowlands, together with a network of local roads.

5.2.4 Physical Influences

The Cornbrash Limestone Lowlands form a transition between the gently rising Dip-Slope Limestone Lowland to the north and the extensive generally flatter and lower lying Thames River Basin Clay Vale to the south. The landscape shelves gently from north-west to south-east, dropping an average of 20m over a distance of approximately 2 km (1.2 mile). The general topographical form is therefore subdued, with the area often perceived as being flat or only very gently undulating, with local undulations occurring where small tributary valleys have dissected the area. The course of rivers and local streams are often difficult to trace in the wider landscape except at crossing points or where their course is marked by riverside trees and linear belts of woodland.

The underlying Cornbrash Formation is the youngest rock within the Great Oolite Group, and consists of a coarse, crumbly shelly limestone that outcrops on the perimeter of the youngest Jurassic Formations, comprising the Kellaways Beds and Oxford Clay. The limestone is overlain by brown marl that produces a particularly fertile and friable soil well suited for arable farming. The name of the rock relates specifically to its suitability for arable farming and was coined in the 18th century. Although of very limited value for building, the Cornbrash has been quarried for aggregate, for example at the Shorncote and Dryleaze Farm Quarry west of South Cerney, where it underlies river terrace deposits.

Arable fields predominate and are often located in large or medium sized fields enclosed by a network of generally well-maintained hedgerows and occasional stone walls. Some of the larger fields may have been created by a process of field amalgamation and hedgerow removal. Improved pastures are generally located along the course of the main watercourse, notably the Ampney Brook which flows across the Cornbrash Limestone Lowlands.

The woodland cover within the Cornbrash Limestone Lowlands is very limited, confined to occasional rectilinear woodlands forming shelterbelts and coverts within the wider agricultural landscape. These comprise a mix of coniferous plantations and broadleaved woodlands.

In this managed agricultural landscape, there are few areas of nature conservation interest, although small remnant areas of unimproved mesotrophic and calcareous grasslands survive.

5.2.5 Human Influences

In common with the Dip-Slope Limestone Lowland to the north, it is likely that this landscape has been occupied since the Neolithic period. However, the time layers of occupation and successive patterns of land use and land management have largely been removed or integrated into the field patterns created by the enclosure of the land that occurred in the 18th and 19th centuries. This has had the most significant effect on landscape character, with the resultant strong pattern of medium to large regular fields that extends across the area. Many of the area's farmhouses and barns date from this period. There is some evidence of previous periods of occupation. The course of the Roman Road, Ermin Way is a significant historic landscape feature which crosses the Cornbrash Lowlands. Other traces of occupation exist, most notably the earthwork at Ranbury Ring to the west of Poulton, and the Anglo Saxon Burial Ground west of Fairford. A section of Salt Way also crosses the eastern part of the Cornbrash Limestone Lowlands.

5.2.6 Buildings and Settlements

Settlement within the Cornbrash Limestone Lowlands is sparse and mainly confined to compact hamlets and occasional dispersed villages, with the small linear villages of Poulton and Driffield, and Pool Keynes located in the west of the area A pattern of dispersed farmsteads serves the predominantly agricultural land, together with a number of individual buildings. The South Cerney Airfield and military airbase is also located within the landscape type, to the west of Driffield.

The area is crossed by a number of generally straight rural roads that link the rural settlements. East of Cirencester, the A417 is the only major road that passes through the Cornbrash Limestone Lowlands, following an approximately east-west route. Despite the local impact of these roads, the area retains a quiet, rural character focused on agriculture.

5.2.7 Landscape Character Areas

2A Poole Keynes and Ewen Lowlands

The Poole Keynes and Ewen Lowlands comprise a medium to large scale landscape with a very gently undulating landform that can give the impression of being flat. There is a subtle rise in the landform, however, with levels rising from around 90m AOD in the extreme south-east up to 115m AOD in the north-west of the area. There is a general sense of openness and expansiveness with long distance views to the south, and glimpsed views of the Dip Slope Limestone Lowlands to the north. Vertical features also gain visual prominence in the open landscape and the eye is often drawn to a number of high voltage pylons that cross the Poole Keynes and Ewen Lowlands. The underlying Cornbrash Formation has given rise to the stony brown soil that is visible on the periphery of arable fields and in the stone walls that are sometimes found aligning local roads and tracks.

The hydrological features within the area are quite limited and consist of a small number of ponds scattered throughout the landscape and ditches aligning field boundaries.

In the eastern section of the Character Area, arable cultivation is the predominant land use with large scale regular fields, whilst in the western section there are a wider variety of land uses including scrubby pasture, semi-improved sheep pasture, tree plantations as well as arable cultivation, all in fields of varying sizes from small to large. This mosaic of contrasting land uses combines to create a colourful textural landscape in the western portion of the Character Area. Low to medium, well managed and regularly trimmed hedgerows form the common field boundary in the agricultural landscape, punctuated by occasional isolated mature hedgerow oak trees. The hedgerow network is becoming gappy in places throughout the area with hedgerows commonly reinforced with post and wire, particularly in the western part. There is also evidence of field amalgamation and some arable fields are unfenced adjacent to farm tracks in the eastern section.

There are scattered and predominantly deciduous woodland copses throughout the area. These copses combine with intermittent mature hedge trees to create a well wooded horizon in many areas. There is also evidence of new tree planting along minor roads and tracks leading to farms.

A network of minor roads provides access across the area. The character of these roads varies considerably. For example, there is a distinctive sunken lane to the south of Kemblewick with low, well maintained and regularly trimmed hedgerows on either side of the road on the elevated banks; in contrast, the road between Ewen and Poole Keynes is at grade and delineated on either side by road side verges and medium height hedgerows. In the eastern part of the Character Area the road network is broadly aligned north-south, east-west with those running north-south tending to be busier whilst those extending east-west are often quieter and more rural in character. There are also a limited number of rights of way giving pedestrian access to the wider landscape. The western section of the Character Area is also crossed by the main line railway, but as it is largely in cuttings it does not form a notable feature in the landscape.

The linear and dispersed settlement of Ewen straddles the eastern and western sections of the Character Area. Part of Ewen is designated as a Conservation Area. Old stone properties constructed in the local vernacular in golden/grey limestone predominate together with

occasional thatched dwellings in the centre of the village; there is also some modern infill development. Areas of parkland landscape and associated tree avenues on the outskirts of the settlement are a notable local feature.

The settlement of Poole Keynes in the south of the western section of the Character Area also has a traditional character with numerous old stone built properties with stone boundary walls, as well as a few thatched cottages clustered around the village church. Notable features in the village include the stone built square tower of the church, the village cross (a Scheduled Ancient Monument) and Poole Keynes House, which is surrounded by parkland fencing.

Beyond the settlements of Ewen and Poole Keynes, settlement is generally very limited in the wider landscape and generally consists of scattered farms, associated outbuildings and isolated dwellings, usually constructed from stone, and either lying adjacent to local roads or set back on tracks. There are also some newly converted residential barn dwellings at Westend Farm in the western section of the area.

2B Driffield Lowlands

The Driffield Lowlands comprise a very gently undulating and open, expansive landscape. Although extensive areas are perceived as flat, there are occasional localised undulations, for example the small hillock that rises to the north of the Old Downs and The Folly woodlands on the southern edge of the Character Area. The flat and expansive nature of the landscape allows distant views to the north towards the Dip Slope Limestone Lowlands, and also to the Thames River Basin Lowland to the south, although interrupted in places by localised elevated areas of land, and by intermittent woodland blocks.

The underlying Cornbrash Formation is evident in the landscape through the presence of the stony soils that are commonly found along the margins of agricultural fields and through a number of tumbled-down stone walls found fragmented amongst the hedgerow network. A number of watercourses drain the area and ditches are often found either aligning field boundaries or extending along local roads. The Ampney Brook is the most prominent of these watercourses, flowing broadly north to south through the Driffield Lowlands. The riparian vegetation and scrubby pastures that extend along its course are readily visible in the landscape.

The predominant land uses of the Character Area comprise an extensive network of large to medium scale arable fields with smaller pasture fields commonly aligning watercourses or located adjacent to settlements. The arable fields are generally regular in shape with a variety of crops in cultivation, creating a colourful and textured landscape. Where pasture occurs adjacent to settlement, fields are often used for horse grazing and sub-divided with white tape fencing. Low, well maintained and regularly trimmed hedgerows predominate as the main boundary treatment between fields with medium height hedgerows generally aligning roads. In places, however, hedgerows are quite overgrown, and where they are maintained at a low height, they have often become gappy and reinforced with post and wire. The low height of the hedgerows between fields allows extensive views across the Driffield Lowlands and scattered mature hedgerow trees punctuating the landscape gain visual prominence in the perceived flat landscape.

Several woodland copses are scattered throughout the area so that views towards the horizon line are often dominated by distant woodland. The copses vary in composition and include deciduous, coniferous and mixed species stands of trees. The woodland blocks

of The Folly and Old Downs are particularly notable due to their prominent location on a localised hillock rising to 101m AOD in the south of the area. The Folly comprises a fragment of ancient semi-natural broadleaved woodland. Overgrown field boundaries increase the tree cover and sense of a wooded cover in some areas.

The principal roads within the Character Area comprise the A417 which forms its northern boundary, and the A419(T) which cuts across the western part. The noise generated by the traffic using these roads, and the visual impact of the lighting infrastructure, together have an intrusive effect within an otherwise rural landscape. Elsewhere, a network of minor roads extends across the landscape, several of which terminate at farms in dead-ends.

Notable heritage features in the area include the Scheduled Ancient Monument of Ranbury Ring, which is located to the west of Poulton and surrounded on its western side by a distinctive belt of woodland, and the Ermin Way, a former Roman Road which follows the route of the A419 through the western section of the Character Area. Other features of heritage interest include Conservation Areas that have been designated within the settlements of Harnhill, Driffield and Poulton. Driffield is a small linear settlement comprising a mixture of older and new stone properties that extend outwards from a central village core which includes a village pond and a stone church with a low tower. Poulton is another linear settlement with a number of older stone properties interspersed with occasional clusters of modern stone infill and some new red brick and rendered development on the settlement edge. Amenities in the village include a post office, public house and a general store and there is evidence of market gardening associated with the village with poly-tunnels and glass houses located at the edge of the settlement. The settlement of Harnhill comprises a small cluster of traditional stone-built dwellings with a ditch and a series of old stone walls threading through the village. There is also evidence of ridge and furrow in the fields to the north of this settlement. Overall, however, the influence of settlement is very limited with only distant views to settlement edges visible from the wider landscape and views towards occasional isolated farms and dwellings, largely constructed from stone, punctuating the landscape.

Other notable features in the landscape of the Driffield Lowlands include the South Cerney Army Station and airfield located in the western section of the character area. The group of large rectangular aircraft hangars are prominent features in the landscape, particularly in the context of their location adjacent to the open expanse of the airfield. The housing within the army station is typical of the architectural style used in military premises.

Recreational opportunities within the area include an 18 hole golf course and driving range to the south of Northmoor Lane adjacent to Butts Farm. Some tree groups have recently been established within the golf course. Butts Farm to the north-east of the golf course is the location of a Rare Breeds Animal Farm. Other recreational opportunities in the area include a number of rights of way that cross the landscape.

2C Southrop Lowlands

The Southrop Lowlands is characterised by a generally flat topography interspersed by occasional minor undulations. A sense of expansiveness prevails due to the prevalence of panoramic distant views towards elevated land on the southern side of the Upper Thames River Basin Clay Vale.

The hydrological features within the area are generally limited to a few minor streams and brooks that follow the flatter land between undulations. The River Coln flows from north to south through the central section of the Character Area, passing through the grounds of Fairford Park. The flow of the river is regulated by a set of weirs in the north of the park and this has created

10.2 The Character Types and Areas of the Cotswold Water Park
CORNBRASH LIMESTONE LOWLANDS

an extensive linear water body known as Broad Water as a central focal feature of the park. Fairford Park comprises the former parkland landscape that was created for a mansion built in the 17th century. The mansion was demolished in the 1950s and Farmoor School now stands on the former site.

Arable cultivation is the dominant land use in the Character Area with fields generally large to medium in size and regular in shape. Low hedgerows of varying condition form the common field boundary to the west of Fairford. Some of these hedgerows are well-maintained, whilst others are gappy in places and there are occasional isolated mature hedgerow trees, some of which are becoming stag-headed. The low well maintained and regularly trimmed hedgerows combine with the regularly shaped fields to visually unify the landscape and this produces a strong overall landscape pattern. To the east of Fairford, low stone walls are the predominant field boundary treatment, interspersed with tracts of overgrown hedgerows. Some of these stone walls are becoming fragmented in places.

There are a number of small, generally geometric shaped copses scattered throughout the Character Area. These vary in composition and include stands of mixed species and copses of coniferous species. The woodland cover in the area includes the southern portion of the ancient semi-natural woodland of The Grove located to the north of Broad Water in Fairford Park. Views towards Lea Wood can be seen readily from the northern section of the area, although this distinctive oval shaped and visually prominent woodland block is within the adjacent landscape character type of Dip Slope Limestone Lowland. The isolated hedgerow trees aligning the hedgerow network also form distinct punctuations as they gain visual prominence in the flat open landscape. Also notable are recently planted avenues of trees along some minor roads in the area.

Heritage features of interest in the Southrop Lowlands include an Anglo-Saxon Burial Ground located to the north-east of Fairford, the ancient road of the Salt Way, which follows the route of a minor road passing through the east of the Character Area, a Tumulus at Farhill Farm to the east of Fairford Park, and an obelisk situated in the northern part of Fairford Park. There is a disused airfield to the west of Southrop, which is of military historical interest through its links with the network of World War II airfields that were established in the wider area.

The A417 follows the southern boundary of the western section of the Character Area. Elsewhere, there is a network of minor roads that form a grid across the landscape, several of which radiate out from Fairford and connect to settlements in the wider area.

Settlement is generally very sparse with the influence of settlement on the character of the area generally limited to distant views towards isolated farms and dwellings and views towards new development on the perimeter of Fairford. Temporary settlement in the area includes the Greenacres Park residential caravan park situated on the south western boundary of the area.

Recreational opportunities in the area include a limited number of rights of way extending through the landscape and a Leisure Centre associated with Farmoor School which now occupies the site of the former mansion at Fairford Park.

Evaluation of the Cornbrash Limestone Lowland Landscape Type

The Cornbrash Limestone Lowlands Landscape Type shares similar characteristics and management challenges and opportunities to the Dip Slope Limestone Lowland (Section 10.1). As a consequence the evaluation summaries for these two areas are broadly similar.

As noted in Section 9.5, the area represented by this Landscape Type within the CWP study area is very limited and forms part of a larger area of Cornbrash Limestone Lowland that extends to the west. The evaluation descriptions are therefore applicable to this wider area.

Positive Landscape Features of Significance

- Simple and quiet rural landscape with very subtle variations in landform;
- Productive agricultural landscape of predominantly arable land with a well managed character;
- Seasonal variations in colour and texture associated with arable farming providing visual diversity;
- Network of hedgerows with hedgerow trees delineating the mosaic of mainly large scale agricultural fields;
- Occasional copses, and pattern of rectilinear shelterbelts and larger areas of woodland forming locally significant features and enclosure;
- Intermittent wide views across arable fields and occasional distant views to the chalk escarpment of Marlborough Downs from open areas with more limited hedgerow cover;
- Sparse settlement pattern contributing to the quiet and simple character with occasional dispersed limestone villages, compact hamlets and farmsteads and dwellings displaying the distinctive Cotswolds local vernacular; and
- Network of quiet rural roads with little through traffic contributing to the remote character.

Forces for Change

- Agricultural land management changes in response to a shift from a subsidy based to an open market driven economy linked to the Single Farm Payment (SFP), and wider effects of rising cost of fuel and world food shortages;
- Requirement for farmers and landowners to meet 'Good Environmental and Agricultural Conditions' (GAEC) under the SFP leading to environmental benefits;
- Population increase and demographic changes leading to pressure for new development around existing settlements, including more affordable housing and retirement dwellings;
- Increasing traffic on both principal and narrower local rural lane networks as a consequence of increase in resident population, visitors to the CWP and commercial traffic;
- Ongoing and future mineral extraction and restoration within land in adjacent areas of River Basin Clay Vale and effects arising from land use changes and on wider setting; and
- Climate Change affecting long term changes in: habitats and patterns of species movement, and potential decline or vulnerability of habitats; crop types within agricultural land; and potential introduction of biofuels to contribute to renewable energy targets.

Threats and Opportunities

- Conflicts in agricultural land management practices, with the need to farm more intensively in response to effects of world commodity prices and market trends balanced against the wider aspiration for farmers to manage their land in an environmentally beneficial way as 'stewards of the environment'.
- Potential amalgamation and enlargement of arable land in response to more intensive farming methods resulting in increase in perceived scale of landscape;
- Decline in quality of agricultural land, with loss of or poor management of hedgerows and mature hedgerow trees and boundaries, and decline in pasture, particularly at settlement fringes, through equestrian use or poor stewardship;
- Reduction in areas of developing biodiversity interest linked to withdrawal of set aside land;

- Increasing demand for biofuel crops through renewable energy targets and market forces and potential effects on landscape character through introduction of crops such as Miscanthus and short rotation Willow;
- Opportunities and benefits for landscape character and biodiversity enhancement arising from the take up of Higher and Entry Level Environmental Stewardship schemes;
- Continuing pressure on rural settlements for new dwellings and effect on village morphology and character;
- Dilution or imitation of Cotswolds local vernacular; use of inappropriate materials; 'suburban' styles and detailing; and loss of spaces between dwellings affecting historic and visual interrelationships;
- Counterbalance of opportunities for enrichment of settlement character and form through appropriate sensitively designed and located development that complements the existing built and settlement form but also reflects contemporary design;
- Diminution of rural tranquillity through increased traffic particularly on local road network;
- Standardisation of road network and particularly the narrower local rural lanes through alignment improvements, introduction of kerbing, lighting, 'amenity planting' and signage, and effect on historic patterns of movements between settlements and their local character; and
- Opportunities for implementation of environmental enhancement within settlements and provision of wider access to the surrounding rural landscape.

Condition Statement

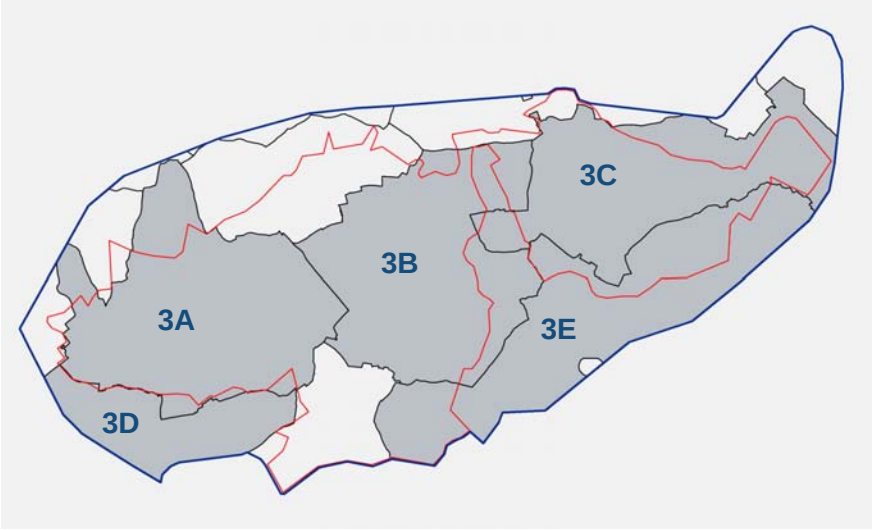
The condition of the Cornbrash Limestone Lowland Landscape Type is generally **Good** with intact hedgerows, and occasional dispersed villages or hamlets of mainly vernacular stone dwellings. In some areas, however, there is evidence of elements in **Poor** condition such as gappy and flailed hedgerows or conversely outgrown hedgerows. In some villages there are inappropriate buildings that do not accord with the Cotswold vernacular or adversely affect the overall condition and character of the settlement. Occasional equestrian pastures are evident on the perimeter of some settlements and the associated temporary fences devalue the otherwise strong unity and condition of the setting of the villages, some of which are designated as Conservation Areas.

Strength of Character

The settlements within the wider area of the Cornbrash Limestone Lowland Landscape Type, many of which display the traditional Cotswold vernacular, create a strong and unified character. However, other elements such as the agricultural land use, subdued landform and hedgerow field boundaries vary subtly across the type and as a consequence make it less distinctive and cohesive. The strength of character overall is therefore judged as **Moderate**.

Inherent Landscape Sensitivities

- Rural and remote nature of the area;
- The character and quality of the agricultural landscape;
- The traditional structure and visual unity and setting of the dispersed settlements with many dwellings displaying characteristics that are typical of the local vernacular;
- Assemblages of historic landscape features that are evidence of progressive layers of past occupation notably enclosure fields, Roman road network, Saxon settlement and burial ground, and Iron Age earthworks; and
- Remnant areas of high ecological value mainly comprising occasional areas of ancient woodland and dispersed unimproved grasslands.



CHARACTER AREAS

3A South Cerney and Ashton Keynes Settled Wetland

3B Down Ampney and Meysey Clay Vale Farmland

3C Fairford and Lechlade Settled Wetlands

3D Swill and Derry Brook Clay Vale Farmland

3E Castle Eaton and Inglesham Clay Vale Farmland

5.3.1 Key Characteristics

- Low lying, flat to very gently undulating floodplain landscape underlain by extensive deposits of alluvial clay and silt, and sand and gravel that mask the solid geology;
- Isolated hillocks associated with exposures of the Oxford Clay form locally significant features;
- Strong presence of water reflected in rivers, streams, ditches and extensive network of restored sand and gravel extraction sites;
- Lush wet meadows and wide floodplain pastures, with watercourses often lined with riparian vegetation, including frequent lines of pollarded willows;
- Mosaic of wetland and riparian habitats, together with water based recreational uses associated with lakes created through the restoration of gravel extraction sites;
- Combination of pastoral land, often in smaller scale fields and closely associated with watercourses and larger scale fields under arable cultivation;
- Pattern of nucleated and linear settlements dispersed throughout the landscape, including occasional small towns and large villages, hamlets and scattered farmsteads and dwellings, with vernacular buildings constructed in stone and brick;
- Modern waterside developments comprising holiday or second homes with distinctive architectural style and often located in association with restored lake areas;

- Scattered pattern of woodland plantations and copses together with vegetation closely associated with river courses and standing areas of water, which in places results in a sense of enclosure and more intimate landscape; and
- Limited major roads and a wider network of minor roads providing access to the floodplain landscape.

5.3.2 River Basin Clay Vale within the Cotswold Water Park Study Area

The River Basin Clay Vale extends across a broad area encompassing the floodplain and flat, low lying river basin of the Upper Thames. The study area broadly coincides with this landscape type encompassing all of the lowland that defines this broad river basin. The area extends from Pool Keynes in the west to Lechlade and north of Buscot in the east and includes land within the counties of Gloucestershire, Wiltshire and Oxfordshire.

5.3.3 Landscape Character

The River Basin Clay Vale Character Type comprises a broad low lying area of pastoral land interspersed with an extensive wetland environment of rivers, streams and ditches and numerous areas of open water associated with restored gravel extraction areas. This latter activity has been particularly notable through the progressive land use changes that have resulted from the widespread extraction of sand and gravel throughout the area and the subsequent restoration to extensive lakes. Since its formal designation in 1967, the Cotswold Water Park has developed as a distinctive area supporting a diversity of rich wetland habitats of important ecological value as well as a range of water based leisure uses. It is now an area of regional and indeed national importance, and through progressive land use and management change has significantly altered the character of this part of the Upper Thames Valley.

The settlement pattern varies from generally sparsely settled areas with intermittent dispersed farms, to large nucleated villages and the small town of Cricklade. These settlements are principally focused either on the River Thames or other principal tributary rivers. To the west, Somerford Keynes, Ashton Keynes and Cricklade are all located adjacent to the River Thames, while South Cerney is located adjacent to the River Churn. Smaller villages, such as Kempsford and Castle Eaton are also located adjacent to the Thames. Fairford, on the northern perimeter of the study area and landscape type, is adjacent to the River Coln, and Lechlade to the east has developed adjacent to the River Thames. Beyond the rivers, the presence of water is also a common feature in the wider landscape with ditches and small watercourses commonly aligning field boundaries and running adjacent to local roads.

5.3.4 Physical Influences

The area is underlain by the youngest rock formations of the Jurassic period, comprising the Kellaways Beds and Oxford Clay Formations. These impervious clays are overlain by extensive superficial deposits of alluvium and River Terrace sands and gravels. The pattern and depth of these drift deposits have had a significant effect on local character through their varying influence on agricultural activity and the potential for mineral extraction.

In broad terms this low lying area is characterised by very shallow slopes, and in many areas is perceived as flat particularly where the extensive floodplain borders the river channel. The area varies in height averaging from 90m to 70m AOD with the land sloping very gently towards the River Thames. There are some notable variations to this pattern, however, with intermittent areas of Oxford Clay rising above the general levels of the low lying floodplain to form locally distinctive hillocks. These generally reach accordant summits of around 100 -105 m AOD, and include Ashton Down, to the north of Ashton Keynes; Hailstone Hill, west of Cricklade; and Horcott Hill to the south of Fairford. West of Kempsford, the low hillocks of Brazen Church Hill and the adjacent larger hillock to the north, are also notable local features, their prominence strengthened by the woodland cover on the rising slopes.

Although woodland cover is not extensive within the type, intermittent and often geometric form woodlands are present, principally associated with the farmland that extends across the study area. The large, principally deciduous Water Eaton Copse to the south of Castle Eaton is a particularly notable example. In addition, new plantations, semi-mature copses and naturally regenerating vegetation is developing in association with the former sand and gravel workings, and views to the watercourses and lakes are often obscured by this developing vegetation cover. Lines of poplars and pollarded white willows also define the course of rivers and streams in many areas.

5.3.5 Human Influences

There is evidence of continuity of settlement on the gravel areas of the River Basin Clay Vale from the Iron Age through the Saxon and Roman periods and beyond. Place names of the Saxon period indicate that much of the land had been cleared. Development during the Romano-British period included the major communication route of the Ermine Way built on a raised embankment above the floodplain of the Thames.

The long history of water meadows in the River Basin Clay Vale landscape type is shown by the inclusion of grazed meadows at Cricklade in the Domesday Book. Ancient field systems are evident as crop marks on gravel areas. Ridge and furrow is evident for instance at Haydon Meadow SSSI where it has been protected from damage by ploughing. Field patterns vary with the topography and geology, with small scale irregular water meadows and pasture on alluvial areas, and large regular arable fields on free draining gravels.

Prior to the commencement of the extraction of sand and gravel within the Upper Thames Valley in the 1920s, the traditional land use within the River Basin Clay Vale was that of a pastoral landscape of rich water meadows. Pastures are still evident within the farmland that remains between the restored lake areas, but in more recent times there has been a move away from a traditional mix of dairy and livestock towards more intensive grassland and arable production as improvements in land drainage and flood protection have occurred.

The greatest human influence on the character type has been the extensive extraction of sand and gravel from the terraces adjacent to the River Thames within the River Basin Clay Vale. Quarrying continues to form a significant visual and audible feature within the type with many extraction sites still active on the remaining gravel terraces. This has resulted in a paucity of indicators of earlier human activity that were likely to have occurred along the Upper Thames Clay Vale.

The common restoration treatment for the sand and gravel extraction has been the creation of a complex mosaic of lakes, which provide both recreational and wildlife habitats. Many of the lakes are used for a great variety of watersports whilst others form local country parks and provide quiet enjoyment. These lakes are collectively managed as the Cotswold Water Park, which was formally designated in 1967.

The interests of the Water Park are now managed by the Cotswold Water Park Joint Committee, encompassing Gloucestershire and Wiltshire County Councils, and Cotswold and North Wiltshire District Councils (refer to Section 3.0)

Human reliance on the River Thames has been a strong influence on the communications infrastructure and settlement pattern within the type with the river providing a major highway for the transportation of goods over many centuries until the end of the 19th century. The significance of the River Thames's influence on the landscape is evident through the numerous mills, locks, weirs, wharves and bridges that form locally notable features along the length of the Upper Thames and its principal tributaries, the River Coln and River Churn. The influence of the Thames is also reflected in local nomenclature with many place names ending in 'ford' indicating the establishment of settlements at strategic crossing points over watercourses, e.g. Fairford, Whelford adjacent to the River Coln and Kempsford adjacent to the River Thames.

Canals have also been an important means of communication in the study area, although these have been abandoned and fallen into disrepair. At its eastern limit, the route of the Thames and Severn Canal commences at Inglesham at the confluence of the Thames and the River Cole, and proceeds westwards through the study area. A number of sections are evident, notably through Kempsford and Eysey, and between Cerney Wick and the south of Cirencester. Remnant sections of the canal including canal bridges and locks add interest and an historical dimension to the local landscape. There is a proposal to restore the canal as part of the Cotswolds Canals Project and once again reinstate the link between the Thames and the Severn. The North Wiltshire Canal is another abandoned route that in the vicinity of the study area links Swindon to Cricklade, and hence the Thames to Severn system. Again, there is an aspiration to restore this canal and integrate it with the Cricklade Country Way Initiative. This latter project proposes a system of alternative non-motorised routes between Swindon and the Cotswold Water Park at Cricklade, by footpaths, cycleroutes, and via the canal, and by train on the restored Swindon and Cricklade Railway.

5.3.6 Biodiversity

The Landscape Character Type supports many areas of national and international importance for their biodiversity.

Most of the lakes within the western section of the Cotswold Water Park have been designated as a SSSI. The series of lakes that form the SSSI comprise nationally scarce marl waters caused by the lime rich geology. The lakes include a range of the varied plant communities with open water (including those associated with marl waters), reed beds and surrounding grassland habitats. The area supports a wide range of notable species including wintering and breeding birds such as pochard and gadwall, as well as water vole, otter, bittern, freshwater white clawed crayfish, and the lesser bearded stonewort Chara curta all of which are targets of the Cotswold Water Park BAP.

Within the areas of predominantly intensively farmed pasture and arable there are also areas that support unimproved hay, and are nationally significant for their diversity of grassland plants. These include Clattinger Farm SAC, the only lowland farm in Britain known to have received no agricultural chemicals, plus Pike Corner SSSI, Sutton Lane Meadows SSSI, Upper Waterhay Meadow SSSI, Haydon Meadow SSSI, Acres Farm Meadow SSSI and North Meadow SAC, Cricklade SSSI.

Wildlife Sites include Swillbrook Lakes Reserve in the south-western perimeter of the designated Water Park These former gravel pits are rich in bird and dragonfly diversity, including reed warbler, nightingale, hobby and four-spotted chaser and downy emerald dragonflies.

5.3.7 Buildings and Settlement

The River Basin Clay Vale supports a number of settlements of varying size. Those in the central and northern section of the study area generally retain the character of the Cotswolds local vernacular with historic cores, enhanced by the unifying effect of the predominant use of Oolitic limestone. The larger settlements of Fairford and Lechlade have developed a wider range of architecture with 'town houses' as well as typical village properties present, and new perimeter development that endeavours to link to a Cotswolds vernacular. Both Fairford and Lechlade have fine medieval churches. Other villages such as South Cerney, Ashton Keynes and Somerford Keynes retain a character typical of a Cotswolds village but have the further dimension of now being focused towards the Water Park through their proximity to large bodies of water and associated recreational interests. There are also very small and quiet villages such as Down Ampney, which retains the sense of a rural idyll, and a fitting link with Vaughan Williams who was born and lived there as a young child. A number of new residential holiday developments have established within the heart of the Water Park some of which present contrasting architectural styles.

The area also supports a pattern of both active and disused military airfields as at Fairford, and Down Ampney. The USAF military airbase at Fairford is a dominant feature in the eastern part of the study area although because of the very flat landscape is not immediately evident in wider views. The surrounding security fencing, however, together with the airborne activity serves as a reminder of its presence.

5.3.8 Landscape Character Areas

3A South Cerney and Ashton Keynes Settled Wetlands

This Character Area encompasses much of the western sector of the designated Cotswold Water Park where there has been a long period of sand and gravel extraction. Its character is mainly derived from the combination of an existing settled landscape of small mainly stone built village settlement with a dynamic and evolving wetland landscape.

Large-scale sand and gravel extraction comprises the dominant influence on the landscape character of this area. In addition to extensive areas of post-extraction created lakes, there are a number of areas that are still undergoing active extraction, such as Shorncote Quarry. The mosaic of lakes comprises part of a complex of water bodies that form the western section of the Cotswold Water Park. Despite the number of lakes, the visual influence of these water bodies within the wider landscape context of the area is often limited as the development of regenerating scrub vegetation and areas of woodland adjacent to many of the lakes restricts views towards the water bodies from neighbouring settlements and local roads. This has resulted in a small to medium scale landscape which feels enclosed, despite the sequence of wetlands and lakes. A network of minor roads align the lakes, broadly running north-south and east-west and the lakes and the road network combine to make a strong overall landscape pattern, with the smooth surfaces of the water bodies contrasting strongly with the texture of the surrounding trees and vegetation.

The numerous water bodies within the South Cerney, Ashton Keynes and Somerford Keynes section of the Cotswold Water Park have a very important nature conservation value. A number of the lakes have SSSI designations and Coke's Pit Lake and Swillbrook Lakes are designated as a Local Nature Reserve. Other sites with nature conservation value in the Character Area include Wildmoorway Meadows and Elmlea Meadows in the eastern part, both of which are designated as SSSIs for the invertebrate ecology of their grassland habitats.

Beyond the lakes of the Cotswold Water Park, a traditional land use pattern of small scale regularly enclosed pasture fields continues within the floodplain adjacent to the River Churn and River Thames, with horse and sheep grazing fields separated by low, well maintained and regularly trimmed hedgerows predominating along the valley bottom and occasional medium scale arable fields aligning the shallow slopes and occasional local hillocks that rise above the floodplain, as at Ashton Down to the west of South Cerney. Where agricultural land abuts areas of former gravel extraction, the landscape often appears marginalised and in decline with hedgerows becoming overgrown and/or gappy in places.

The creation of the Cotswold Water Park has facilitated a proliferation of recreational opportunities in the area with many of the lakes supporting yacht clubs, sailing schools, angling clubs and nature reserves, notably the Somerford Lakes Reserve, designated as a SSSI, and Keynes Country Park, to the west and east of Somerford Keynes respectively. It appears that many of the lakes have been constructed specifically for recreational purposes and although some attempts have been made to naturalise these lakes through lakeside planting, many of the water bodies tend to be poorly integrated into the wider landscape. In addition to water-based activities other recreational opportunities in the area include parking sites with picnic facilities, a horse-riding school at Cerney Wick, a wildlife centre on the northern edge of Somerford Keynes and the Thames Path national trail that extends through the southern portion of the area.

Numerous clusters of recently constructed (lakeside) holiday and second homes and chalets have developed around many of the lakes and these new developments are particularly prominent around the water bodies to the south-east of South Cerney. Although vegetation filters views towards many of these developments, the buildings tend to draw the eye as their architectural style is in contrast with the local vernacular of the surrounding villages; also, the individual developments do not share a consistent character with one another.

The main settlements associated with this Character Area comprise Ashton Keynes, Somerford Keynes and South Cerney.

Ashton Keynes is a compact nuclear village with the central historic core designated as a Conservation Area. Many of the older buildings are constructed in the local vernacular and limestone typical of Cotswold villages, together with more recent development, particularly on the village perimeter. The juvenile River Thames flows through the village and is celebrated as an integral part of the village form with a series of pedestrian stone bridges linking dwellings. Although surrounded to the west, north and east by restored lakes and a wetland landscape, this is not immediately evident within the village and it presents a sense of detachment from the nearby water based activities.

Somerford Keynes in the west is a linear settlement and includes a Conservation Area with a distinctive historic core of yellow/grey Cotswold stone-built properties with occasional areas of modern infill scattered throughout the settlement. South Cerney also includes two Conservation Areas with the settlement centred around an historic core interspersed with areas of modern infill. The settlement has developed at the intersection of a crossroads of local roads and a ditch runs east-west through the village in a wide grass verge. There are a few shops and pubs located in the village centre and an industrial area on the southern outskirts of the village including the recent development of the Lakeside Business Park.

Cerney Wick forms a small linear hamlet to the south-east of the western sector of the Cotswold Water Park and includes Churn Pool trout fishery on the outskirts of the settlement. Horse grazing is the common land use at both ends of the settlement with evidence of poached pasture both to the north and to the south. Stone walls thread through the hamlet and give an added sense of unity to the settlement.

In the north of the area, beyond the immediate influence of the lakes, the village of Siddington is located on the valley floor of the River Churn. The settlement comprises a range of new stone built properties, new and old red brick terraces, Siddington Manor, farm buildings, allotments and horse pasture all mixed and clustered together.

Beyond the new lakeside holiday home developments and the villages described above, settlement is very limited within the wider landscape of the Character Area, although scattered 'Mills' and 'Mill Farms' are associated with isolated dwellings and farms in close proximity to the upper reaches of the River Thames, between Somerford Keynes and Ewen.

3B Down Ampney and Meysey Clay Vale Farmland

This is a low lying and predominantly flat landscape, with landform varying between 80 – 85m AOD. Occasional undulations are of local significance, however, such as Poulton Hill to the north of Down Ampney which rises to a height of nearly 120m AOD and Meysey Hampton to the north at 104m AOD.

This scale and pattern within this Character Area portrays a subtle shift in emphasis in comparison with the wider characteristics of the landscape type. Arable agriculture tends to predominate as a land use and field sizes are generally larger in scale. There is evidence of field amalgamation in places with isolated field trees marking former field boundaries. These vary in condition from gappy and overgrown in places to well-maintained in others. Hedgerows tend to be medium in height adjacent to roads, and low, well maintained and regularly trimmed when forming divisions between fields.

Although there are no extensive areas of woodland cover within the Character Area, the deciduous woodlands of Dukes Brake and Vines Brake are notable features. These are located to the north of Lattton at the transition with the Cornbrash Limestone Lowlands and merge with further woods in this area. Numerous copses are also located in the vicinity of the village of Down Ampney. These include Horseground Covert, Poplar Wood, Gally Leaze Copse, The Grove and Bean Hay Copse and are associated with the planned estate farmland of the village of Down Ampney House. They also lie close to or surround the disused airfield to the south-east of Down Ampney. The airfield formed one of a number of airfields constructed in the south of the Cotswolds during World War II and is associated with the air attack of the Battle of Arnhem. This historical feature provides a visual contrast with the remainder of the Character Area with its long vistas within the flat expansive landscape. Coniferous linear copses prevail around the perimeter of the disused airfield, whilst elsewhere copses tend to be predominantly deciduous and more irregular in shape. In this part of the Character Area, overgrown boundaries and hedgerow trees combine with views to distant copses to create an intermittent wooded feel to the landscape with copses, located within the adjacent Cornbrash Limestone Lowlands, often providing the primary horizon feature. The large scale field pattern combines with the distant expansive views to give landscape that is simple and open.

Hydrological influences on the area include a number of streams and ditches draining the landscape and a water body known as Down Ampney Pits which is a Key Wildlife Site. In addition to the River Thames which flows through the southern part of the Character Area, its tributary the Ampney Brook is also a locally notable watercourse. Their courses are delineated in the landscape by mature trees including pollarded willows and scrubby vegetation aligning the banks.

The North Meadow National Nature Reserve is located at the south-east perimeter of the Character Area, on the north-western side of Cricklade between the confluence of the Thames and Churn. It is nationally renowned for the rare snakeshead fritillaries (Fritillaria meleagris) that bloom across the meadow in late April. The 60 hectare site comprises ancient Lammas land where certain Cricklade townspeople have the right to graze their animals in winter, the land reverting to meadow during the summer. With the land held in common it escaped drainage and agricultural improvement and now supports 80%of Britain's wild population of fritillaries.

The dispersed linear settlement of Down Ampney lies adjacent to Ampney Brook. This village includes a Conservation Area and comprises numerous traditional grey/brown stone houses with high pitched roofs scattered throughout the settlement. The historic Down Ampney House is located in the south of the settlement and fronts onto a parkland landscape demarcated by a parkland fence. The large modern stone development of Broadleaze is located on the northern outskirts of the village. The village has historical associations with the composer Ralph Vaughan Williams who was born in The Vicarage in 1872. Although he only lived there for a few years up to his father's death, he retained a strong association and love of the Gloucestershire landscape and expressed this in a number of his compositions.

Other settlements in the Character Area comprise Latton, a compact village to the east of the A419 which has recently been expanded to accommodate new housing development, and Meysey Hampton, a nucleated village located in the north of the area. Part of Meysey Hampton is designated as a Conservation Area and set around a village green with a predominance of brown/grey old stone properties and an orchard located in the historic centre. A series of old stone walls thread through the village to impart an additional sense of unity. The compact linear village of Marston Meysey is located on the eastern perimeter the Character Areas, close to the boundary of Fairford Airfield. The remainder of the landscape area is very sparely settled, limited to a few isolated farms.

The Eastern Spine Road crosses the Character Area from the Weavers Bridge interchange on the A419, with recent improvements at Sheepen Bridge. This route provides a link to the A417 and Fairford, but it retains the character of a local road. There is also a limited road network of minor roads broadly running north-south in the area and these connect the settlements of Down Ampney, Meysey Hampton, and Marston Meysey and to villages in the wider landscape beyond the Character Area.

The Character Area forms part of the central sector of the Cotswold Water Park comprising Latton / Down Ampney / Marston Meysey. In comparison with the western and eastern sectors, this area has experienced much less gravel extraction and the landscape character is therefore more influenced by agricultural intensification than restoration to lakes. As the reserves in the first two sectors become depleted, however, this area will be progressively vulnerable to change through the existing and potential future extraction. The Cotswold Water Park Management Strategy provides the framework to ensure that a long term vision and management plan for this sensitive area is defined which seeks to ensure that the area is appropriately managed and restored. The setting and protection of the settlements in the area, including Latton, Down Ampney and Marston Meysey will be particularly crucial in managing any future landscape change arising from extraction of the underlying mineral reserves.

10.3 The Character Types and Areas of the Cotswold Water Park
RIVER BASIN CLAY VALE

3C Fairford and Lechlade Settled Wetlands

This area comprises a mixture of contrasting land uses that includes areas of agricultural landscape, the Fairford/Lechlade/Kempsford Section of the designated Cotswold Water Park and Fairford Airfield. The area is predominantly flat and low-lying with the exception of Horcott Hill which rises to a height of 102m AOD and comprises an upstanding outcrop of the Oxford Clay Formation.

The Eastern Section of the Cotswold Water Park has developed as a result of post-extraction remedial treatment which has created a series of water bodies similar in character to the South Cerney and Ashford Keynes Settled Wetlands Character Area, but lake coverage is not as extensive. The lakes are used for a variety of recreational pursuits including coarse and game fishing, water skiing and sailing. Some lakes also have informal paths around their perimeter with viewing benches. There are very limited views to the lakes from the surrounding road network, however, as they are generally well enclosed by surrounding vegetation. Tree and scrub planting adjacent to most of the lakes has created a naturalistic feel to many of the lakeside edges, and serves to better integrate the water bodies into the wider landscape where these are visible. The smooth surface of the lakes contrasts with the texture of the surrounding vegetation to create a simple landscape pattern throughout the area.

Many of the lakes in the Character Area have been classified as Key Wildlife Sites by Gloucestershire County Council, two of which have been designated as SSSIs. Water bodies of nature conservation interest in the Fairford and Lechlade area include two lakes to the north of Lechlade which form the Edward Richardson and Phyllis Amey GWT Nature Reserve. Other Key Wildlife Sites include a strip of semi-natural grassland aligning the dismantled Bryworth Railway Line in the north of the Character Area, Bushyleaze Copse on the northern boundary to the north of Lechlade, and Whelford Meadows which includes areas of invertebrate rich grassland, and is also designated as a SSSI.

In addition to the series of lakes within the designated Cotswold Water Park, other hydrological features and influences in the area include the River Coln; the River Thames; and an extensive network of ditches, which commonly form field boundaries and align local roads.

A diverse agricultural landscape predominates with varying field sizes and land uses. In the wider landscape a mixture of arable and pastoral land use predominates in medium to large scale fields. Smaller scale fields are evident, however, on the slopes of the local hillocks, and small scale arable fields and scrubby pasture can be found adjacent to the River Thames. Low, well maintained and regularly trimmed hedgerows with isolated hedgerow trees form the common boundary treatment in the agricultural landscape. These hedgerows are becoming gappy in places, however, so that adjacent fields are open to one another. Where hedgerows lie in close proximity to the Thames, they have often become overgrown and in places give a localised sense of enclosure adjacent to the course of the river.

Woodland is not particularly prevalent in the wider landscape although there are a few small copses associated with the localised hillock of Horcott Hill and elsewhere a number of mature trees along local tracks form linear wooded elements in the landscape. There is a predominance of deciduous species in these copses and within hedgerows with the exception of some stands of coniferous trees around Kempsford.

The active extraction of sand and gravel continues as a significant land use in this area. The most visually and audibly significant areas of activity occur to the west of Horcott Hill, with unrestored post-extraction works west of the Hill still evident in the area adjacent to the current works. Elsewhere works are evident to the east of Kempsford and west of Fairford at Warren's Cross Farm. As this latter area is progressively restored, however, it is proposed that Claydon Pike will be created as a Country Park together with an hotel and lodge development on the neighbouring Bowmoor Lake.

The main settled influences on the area are the village of Fairford and the small market town of Lechlade on Thames. Fairford is located in the north of the area. The settlement includes a Conservation Area and extends outwards from an historic core which hosts a renowned 15th century church with a distinctive square stone tower. There is a compact village centre with an extensive range of shops and stores, eating establishments, pubs and hotels. There is a mixture of architectural styles within the settlement including a few timber framed houses and a new stone built estate at the edge of the village. Old Cotswold stone walls wind through the village forming a common boundary treatment for many residential properties and unifying the ad hoc mixture of historic housing styles in the settlement.

Lechlade on Thames is located at the east of the study area and includes a Conservation Area comprising various eras of housing styles associated with the incremental expansion of the settlement. There is a proliferation of new housing on the outskirts of the village including both stone and brick of varying types as well as some rendered properties. The elegant spire of the church is a particularly distinctive landmark within the wider landscape. The settlement has a well developed commercial centre including several pubs, a medical centre, estate agents, a bank and a pharmacy as well as a range of shops. The proximity of Lechlade to the River Thames has resulted in a cluster of recreational uses and tourist facilities on the southern periphery of the village including an hotel, the Thames Path National Trail, St. Johns Priory Park caravan park and pleasure craft cruising.

Other settlements in the area include Horcott, a small linear village located at the north-west base of Horcott Hill; Whelford, a small dispersed settlement to the east of Fairford Airfield; and Kempsford, a linear village that extends along the northern bank of the River Thames. These settlements generally comprise a mixture of older stone properties and with newer housing clustered at the edges. These smaller settlements have limited facilities with the exception of Kempsford which includes a Conservation Area and has a local primary school, a few public houses and a church with a square stone tower that forms a local landmark visible from the wider landscape beyond the village. Beyond the villages and town described above, settlement is generally very sparse in the wider landscape, comprising isolated farm buildings often located on or at the base of the localised hillocks and accessed by minor tracks.

Fairford Airfield is a notable feature in the west of the area and creates a strong military presence that has a significant influence on the local landscape character. The airfield has been developed across a flat, large scale landscape with expansive areas of hardstanding and mown grass extending beyond the periphery of the runway. A number of large scale buildings punctuate the horizon; these include substantial hangars of varying form, including many rectilinear hangars and a large arching domed structure. Intermittent towers also form prominent vertical features across the airfield and there is also a sequence of large turfed geometric bunkers. The boundary of the airfield is demarcated by a large perimeter security fence. Overgrown hedgerows align most of the airfield boundaries limiting views towards the airfield from the surrounding area but there are filtered views through gaps in the vegetation and at the entrance gates.

The A417 extends across the north of the area connecting Fairford and Lechlade with other settlements along the Upper Thames Clay Vale. Elsewhere, access is very limited with a sparse minor road network connecting local villages and skirting around the edge of Fairford Airfield.

3D Swill and Derry Brook Clay Vale Farmland

The Swill and Derry Brook Clay Vale Farmland comprises a low lying area of predominantly permanent pasture farmland to the south of the South Cerney and Ashton Keynes Settled Wetlands. Underlain by the Oxford Clay Formation, morphologically it is part of the Upper Thames River Basin Clay Vale and although there is a very gentle fall to the River Thames, the area appears flat. The area is drained by two watercourses. To the west, the Swill Brook rises to the west of the village of Oaksey beyond the study area and within the Pool Keynes and Ewen Cornbrash Limestone Lowlands, and hence resulting in lime rich water. The course of its lower reaches defines the boundary of the Character Area. Further east, the Derry Brook also rises beyond the study area within the Rolling Clay Lowlands to the south, and follows a generally north-easterly course to meet the Swill Brook at High Bridge and close to the further confluence with the Thames. In addition to the watercourse there are numerous ditches that drain this low lying area together with many small ponds, providing evidence of the high water table.

Unlike the land to the north, the farmland has not been significantly affected by gravel extraction operations. The quiet, pastoral landscape character is derived from the pattern of pasture fields, riparian vegetation with pollarded willows, and a largely intact network of hawthorn hedgerows with intermittent, mainly oak and some ash hedgerow trees. Along the watercourses, and particularly the Swill Brook, there are also areas of riparian ash and willow / alder carr woodland. This combination of landscape elements is therefore indicative of how many areas to the north would have appeared prior to the extensive exploitation of the sand and gravel reserves and restoration to lakes.

There are no villages in the Character Area and settlement is confined to a dispersed pattern of farms, and clusters of dwellings that form a series of hamlets. There is a particular concentration along Swan Lane that links the Malmesbury and Ashton Roads. The field pattern is characterised by generally small to medium sized fields. Smaller fields, sometimes irregular in form, are particularly evident around the hamlets.

The Clattinger Farm Nature Reserve is located in the north-western section of the Character Area to the north of Swill Brook and has been managed by the Wiltshire Wildlife Trust since 1996. Designated as a SSSI and a candidate SAC, it is considered to be the finest remaining example of enclosed lowland grassland in the country and an important remnant of a traditional hay meadow. The previous owners farmed the meadows without fertilisers for many years, and the site is particularly renowned for the snake's head fritillary that flowers in the meadow in late April as well as several species of orchid.

On the northern margin of the Character Area, the Waterhay Car Park is located at one of the Gateways to the Western section of the Cotswold Water Park. Here, visitors can leave their cars behind and gain access to the nearby Cleveland Lakes. It is also a key access point for horse riders as horse boxes can be left in the car park, and riders can use the network of nearby bridlepaths. The Car Park is also located adjacent to the Thames Path National Trail with links either eastwards to Cricklade and North Meadow or west to the head of the Thames.

3E Castle Eaton and Inglesham Clay Vale Farmland

The Castle Eaton and Inglesham Character Area extends across the south-eastern section of the study area from Cricklade in the west to Lechlade and the St John's Bridge crossing of the Thames in the east. The area is generally low lying with an imperceptible fall to the River Thames, which defines the northern limit of many sections of the area. In contrast to the otherwise flat landform the small hillocks of Brazen Church Hill and the broader elongated hill immediately to the north at Dudgrove Farm are locally notable features in the landscape and form reference points in wider views. Their apparent prominence is enhanced by the woodland that extends across part of their slopes.

In addition to the east - west course of the Thames, the area is drained by a series of small tributaries of the main river. These comprise the River Ray in the west, followed by Share Ditch, Bydemill Brook and finally, the River Cole. These are generally small watercourses with their course often only discernible by lines of riparian vegetation including willow and alder.

The land use across the area comprises a mixture of pasture and arable with a predominance of pasture. The generally geometric fields are of a medium to large scale although occasional smaller fields are evident in close proximity to the settlements within the area.

Although there is a limited woodland cover across the area, there are nevertheless some substantial areas of woodland which form strong skyline features in the landscape where views are possible across the broad and simple horizons of this flat landscape. The most substantial is Water Eaton Copse, a rectangular area of deciduous woodland to the west of Share Ditch. In the vicinity of this woodland there are further linear belts of woodland including Pope Farm woodland to the west, and further north, the woodlands surrounding North and South Farms. Together these visually link to form a strong north-south line of woodland across the western side of the Character Area.

Settlement within the Character Area is generally small scale and dispersed. The two principal villages are both located adjacent to the River Thames and comprise the compact nuclear Castle Eaton and the larger and linear Kempsford. The 13th Century Church of St Mary has a distinctive spire that forms a notable landmark in this flat landscape. Elsewhere, the small settlement of Hannington Wick to the south-east of Kempsford comprises a nucleus of several farms that serve the wider area. Finally the small village of Upper Inglesham is located at the extreme east of the Character Area on locally elevated land between the Thames and the River Cole. Beyond these villages there is a very dispersed pattern of isolated farms.

10.3 The Character Types and Areas of the Cotswold Water Park
RIVER BASIN CLAY VALE

A limited network of roads serves the area confined to simple rural roads connecting the villages. The area surrounding the Water Eaton Copse woodlands is particularly inaccessible to traffic and presents a quiet and isolated character. Similarly, in the eastern section of the Character Area, the land between the River Thames and River Cole and extending west to Kempsford is also very inaccessible with access limited to simple tracks to isolated farms. This quiet and peaceful rural character and its inaccessibility is a particularly notable feature of many parts of this Character Area.

In the extreme west of the Character Area a disused railway line demarks the former Cheltenham to Andover line that was closed in 1961, two years before the more swathing Beeching cuts. Further south the line has been restored as the Swindon and Cricklade Railway, and currently terminates at Hayes Knoll Station just south of the Character Area. The proposal is to reinstate the line as far as Cricklade and integrate this with the Cricklade Country Park Initiative which is working to establish a green recreational and wildlife corridor linking urban Swindon to Cricklade and the Cotswold Water Park. A network of routes will be provided between Cricklade and Swindon - either by train, foot, cycle or by canal boat through the restoration of the West Berkshire Canal that once served the area.

Evaluation of the River Basin Clay Vale Landscape Type

Positive Landscape Features of Significance

- Low lying, flat to very gently undulating floodplain with isolated hillocks;
- Wide open skies and intermittent distant views to ridges and chalk escarpment;
- Mosaic of wetland and riparian habitats with rivers, streams, drainage channels and extensive network of lakes, including scarce marl water habitats;
- Lush wet meadows and wide floodplain pastures, with watercourses often lined with riparian vegetation interspersed with arable land with intermittent hedgerow enclosure;
- Woodlands surrounding lakes and within agricultural land, and associated with river courses;
- High biodiversity value of wetland habitats, species rich hay meadows and unimproved grassland;
- Conspicuous presence of water based recreational uses associated with lakes and associated modern waterside developments with distinctive architectural styles;
- Dispersed pattern of rural settlements and farmsteads with many dwellings constructed in local vernacular;
- Limited major roads and a wider network of rural roads providing access to the floodplain landscape;
- Visible archaeology in Roman roads, pattern of Saxon and medieval towns and villages, field patterns and remnant ridge and furrow, long established grazing meadows, and former canal and railway routes.

Forces for Change

- Ongoing and future mineral extraction and restoration and effects arising from land use change and on wider setting;
- Increasing demand for water focused leisure and recreation pursuits and development of the CWP as a national tourism focus;
- Increasing priority to manage the mosaic of wetlands, water meadows and grasslands and further enhance the value of the nationally and internationally important biodiversity resource;
- Agricultural land management changes in response to a shift from a subsidy based to an open market driven economy linked to the Single Farm Payment (SFP), and wider effects of rising cost of fuel and world food shortages;
- Requirement for farmers and landowners to meet 'Good Environmental and Agricultural Conditions' (GAEC) under the SFP leading to environmental benefits;
- Population increase and demographic changes leading to pressure for new development around existing settlements, including more affordable housing and retirement dwellings;
- Increasing demand for wider and integrated sustainable access across the CWP by foot, cycle and horse;
- Increasing traffic on both principal and narrower local rural lane network as a consequence of increase in resident population, visitors to and users of the CWP, and commercial traffic; and

- Climate Change affecting long term changes in: habitats and patterns of species movement, and potential decline or vulnerability of habitats; crop types within agricultural land; and potential introduction of biofuels to contribute to renewable energy targets.

Threats and Opportunities

- Conflicts in agricultural land management practices, with the need to farm more intensively in response to effects of world commodity prices and market trends balanced against the wider aspiration for farmers to manage their land in an environmentally beneficial way as 'stewards of the environment';
- Potential amalgamation and enlargement of arable land in response to more intensive farming methods resulting in increase in perceived scale of landscape;
- Decline in quality of agricultural land, with loss of or poor management of hedgerows and mature hedgerow trees and boundaries, and decline in pasture, particularly at settlement fringes, through poor stewardship;
- Reduction in areas of developing biodiversity interest linked to withdrawal of set aside land;
- Opportunities to establish landscape scale habitat creation incorporating wildlife corridors to facilitate species movement within declining or vulnerable habitats affected by climate and agricultural changes.
- Increasing demand for biofuel crops and potential effects on landscape character of crops such as Miscanthus and short rotation Willow;
- Opportunities and benefits for landscape character and biodiversity enhancement arising from the take up of Higher and Entry Level Environmental Stewardship schemes;
- Continuing pressure on rural settlements for new dwellings and developments and effect on village morphology and character;
- Dilution or imitation of local vernacular for new dwellings with use of inappropriate materials; 'suburban' styles and detailing; and loss of spaces between dwellings affecting historic and visual interrelationships;
- Counterbalance of opportunities for enrichment of settlement character and form through appropriate sensitively designed and located development that complements the existing built and settlement form but also reflects contemporary design;
- Standardisation of road network and particularly the narrower local rural lanes through alignment improvements, introduction of kerbing, lighting, 'amenity planting' and signage, and effect on historic patterns of movements between settlements and their local character; and
- Opportunities for implementation of environmental enhancement within settlements and wider access to the surrounding rural landscape.

Condition Statement

Within the CWP area the River Basin Clay Vale comprises a mosaic of different uses which present a diverse and varying range of conditions. While the areas of agricultural land and associated riparian vegetation and woodlands are generally well managed, many sections are intensively managed and sections of the hedgerow network and riparian vegetation have been lost. Overall the agricultural areas are of a **Medium** condition. Nevertheless some of the more remote agricultural areas, detached from the principal areas of gravel extraction activity and wetlands, and where areas of unimproved meadow grassland and wet meadows still remain, are in a **Good** condition.

The areas focused around the extensive areas of lakes and associated marginal land, and interspersed with areas of gravel extraction, also present a range of conditions. The rich wetland habitats of high biodiversity value are generally in a **Good** condition. In contrast, the more intensively used recreational facilities can vary from **Good** and well resolved, to **Poor** condition where the new facilities often present an immature and poorly detailed setting. The areas of juvenile and semi-mature landscapes that have been established in the post restoration stages of the gravel extraction sites also present a **Medium** to **Poor** condition, particularly in the early stages. Overall, the condition of the River Basin Clay Vale is considered to be **Medium**.

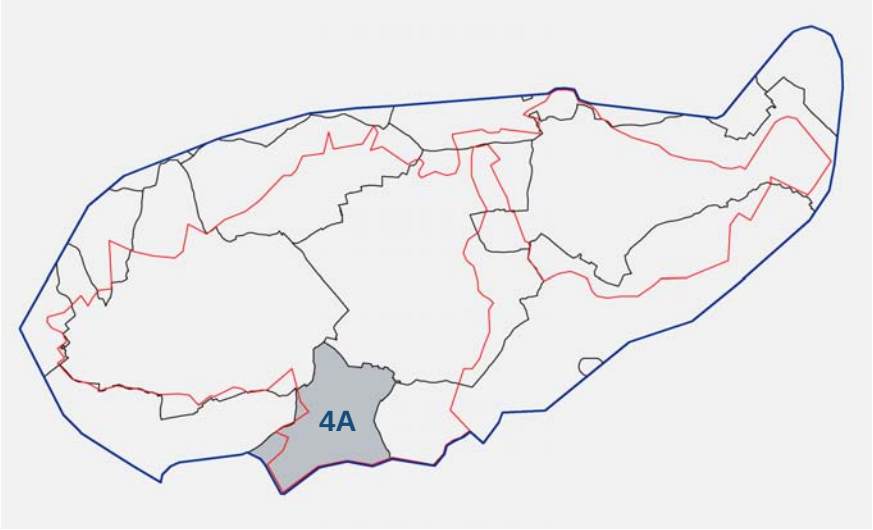
10.3 The Character Types and Areas of the Cotswold Water Park
RIVER BASIN CLAY VALE

Strength of Character

There are some highly rural, tranquil areas still remaining within the River Basin Clay Vale of the CWP through which flows a network of rivers and streams with their lush vegetation, and a dispersed pattern of small villages and farmsteads of local vernacular materials. Elsewhere, this unified and **High** strength of character is affected by the influence of the gravel extraction activities; the mosaic of wetlands and lakes of varying condition and enclosure; the numerous recreational facilities; and the busy transport corridors that cross the area. Together, these dominant influences have affected the overall strength of character which is considered to be **Moderate**.

Inherent Landscape Sensitivities

- Rural tranquillity in the more remote areas;
- The varied character and ecological value of the mosaic of wetlands, watercourses and associated riparian vegetation, and floodplains meadows;
- Pattern of fields and diverse field boundaries, from ditches and channels to hedges and groups or lines of willow, poplar and alder.
- Remnant hay meadows and unimproved grasslands of high ecological value;
- Settlement pattern of dispersed mainly nucleated villages with historic cores of local vernacular buildings materials;
- Wide open views.



CHARACTER AREAS

4A Chelworth Rolling Clay Lowland

5.4.1 Key Characteristics

- Gently rolling lowland underlain by Oxford Clay or alluvial deposits;
- Wetland features on the lower ground, including small streams, open water ditches and marked by lines of mature willows;
- Mixed arable and pastoral land use, but with a predominance of pasture, and some ridge and furrow patterns evident;
- Variable field pattern ranging from small and irregular, to medium sized and regular shaped enclosures with a network of continuous hedgerows and mature oak and ash hedgerow trees;
- Limited woodland cover but some ancient woodland and wet woodland of high ecological value in the wider area plus scattered mature trees;
- Small number of wetland and meadows of neutral and unimproved grassland, and of nature conservation interest;
- Dispersed settlement of villages and farmsteads, generally on locally higher ground, many using vernacular materials of stone and local brick, half timber, tiles and thatch;
- Roads largely confined to minor and rural;
- Views often contained by intact hedgerows, riparian vegetation and woodland blocks with intermittent more open views to the rising slopes of the Settled Limestone Ridge and across the Upper Thames floodplain; and
- A largely peaceful, rural landscape.

5.4.2 Rolling Clay Lowland Farmland within the Cotswold Water Park Study Area

The Rolling Clay Lowland Farmland occupies a small area in the central southern part of the study area that extends southwards from Cricklade to the boundary of the study area, near the village of Purton Stoke. It forms part of a much broader area of Rolling Clay Lowland that extends beyond the study area to the north of Wootton Bassett and to the eastern side of Malmesbury.

While the descriptions that follow are applicable to the broader Landscape Character Type, they are principally focused towards the area within and to the south of the Cotswold Water Park study area.

5.4.3 Landscape Character

The Rolling Clay Lowland Farmland comprises a gently undulating lowland landscape on heavy clay soils. Within the study area the landscape type forms a transition between the River Basin Clay Vale and rising land to the south. The land use predominantly comprises mixed farming, enclosed by a strong hedgerow network with mature trees, and a dispersed settlement pattern.

10.4 The Character Types and Areas of the Cotswold Water Park
ROLLING CLAY LOWLAND FARMLAND

5.4.4 Physical Influences

The Rolling Clay Lowland Landscape Type is a gently undulating lowland landscape underlain by the Oxford Clay Formation Mudstones. Levels range from around 80m AOD adjacent to the Clay Vale to 130m in the wider area to the south-west of Minety, but limited to a maximum of 114m AOD within the study area. Rising above these general levels are locally pronounced undulations and hillocks which assume a local significance in contrast to the generally lower lying landform. Notable examples in the study area comprise the conical form of Hailstone Hill (105m AOD) to the north-west of Cricklade, Common Hill (114m AOD) to the south-west of the town, and close to the perimeter of the study area, a small hill (105m AOD) to the south-east of Blakehill Farm.

The River Key is the principal watercourse within the study area although the wider area is drained by a series of streams and brooks, notably the Derry and Swill Brooks to the west. A tributary of the Thames, the Key rises to the west of Red Lodge Plantation and flows north-eastwards, joining the main river to the east of Cricklade. The study area is therefore located entirely within the catchment of the River Key and the network of minor watercourses and ditches that drain into it.

The clay geology and the many small watercourses give rise to seasonally wet soils of deep clay and loam to clayey soil over shale.

Although there are no significant stands of woodland in the study area, there are notable areas to the south of Minety which form remnants of the Royal Hunting Forest of Braydon. Here there are a number of ancient and semi-natural woodlands including the largest semi-natural remnant of the Forest, Ravensroost Wood SSSI, a botanically rich wet ash-wych elm and wet ash-maple woodland with a coppice with standards structure that is a legacy of many years of consistent management. Another notable stand of woodland comprises Red Lodge Plantation and the contiguous Battlelake Plantation to the south-west of Purton Stoke. These are also ancient woodlands and form part of an extensive parkland estate.

5.4.5 Human Influences

There is evidence of a long period of occupation of the area with the establishment of Cricklade in the Saxon period, as well as the earlier Roman occupation, including the construction of Ermin Way.

The character of the wider area of Rolling Clay Lowland in the northern section of Wiltshire is linked to the influence of its historic land use as part of the Royal Hunting Forest of Braydon. Substantial blocks of woodland dominate the central part of the area, including some where traditional maintenance methods are still in place as at Ravensroost Wood SSSI and a remnant of wood pasture at Somerford Common. Fields are medium to large, mainly pastoral with a strong hedgerow network in good condition with many mature oak hedgerow trees.

5.4.6 Buildings and Settlement

Settlement within the wider area of the Rolling Clay Lowland generally follows a pattern of sparsely scattered small nucleated villages with farmsteads together with occasional larger settlements and small towns. The central area is crossed by straight minor roads with intermittent dwellings scattered along them and at crossroads, and small nucleated villages such as Minety and Upper Minety.

Buildings tend to be of stone with stone slated roofs at the west of the area, such as at Charlton, with brick built buildings and tiled roofs and render more frequent to the east reflecting the widespread use of the local clay and the change from Limestone to Clay geology.

5.4.7 Landscape Character Areas

4A Chelworth Rolling Clay Lowland

The Chelworth Rolling Clay Lowland Character Area extends southwards from Cricklade and the lower lying wetlands of the Thames River Basin Clay Vale, and beyond the study area boundary, towards the villages of Purton Stoke in the south and Minety in the west. There is a gradual transition from the flatter landscapes in the north and east, at about 85m AOD, to the undulating or rolling land that rises up to100m AOD on the perimeter of the area. Consistent with this change in topography, the area forms a transition between the flatter, wetter landscapes with some open water ditches and waterside willows, through to a more pastoral landscape of mixed pasture and arable with mature hedgerows and hedgerow oak trees.

The area lies almost entirely on Oxford Clay, a heavy blue-grey clay, with an arm of alluvial deposits running south-west through the area from the Thames floodplain along the course of the River Key, and also along the River Ray to the east of the Character Area. The clay gives rise to heavy soils which support mainly permanent pasture, but also arable cultivation in places. Field sizes vary from small and irregular, especially in the east of the area and close to the River Key, to medium sized regular fields from later periods of enclosure. Whilst hedgerows in good condition are typical as field boundaries, some stone walls are also found, especially in the vicinity of settlements.

Where lowland meadows are agriculturally unimproved, grassland communities are usually hay meadows except where subject to frequent or prolonged flooding when swamp or inundation communities are more common.

Cricklade is the principal centre of population, located on the slightly higher ground above the Thames floodplain, with the land rising to the immediate west of the town and containing the 20th century expansion of the residential area. The town is a Saxon settlement, founded in the 9th century, although there is strong evidence locally of Roman occupation, including their construction of a permanent crossing over the Thames at Calcutt, to the east of Cricklade, to carry the Ermin Way (A 419). The Saxons established the principal road layout that is still present, and created a fortified town raising earthen ramparts around the settlement. These were later replaced by masonry walls around the 11th century. The historic core of the town focuses on a high street of terraced two and three storey buildings, with a diversity of building materials from timber framed to stone and brick, many of medieval origin. The distinctive church spire of St Sampson's forms a memorable landmark in the flat or undulating landscape.

Beyond Cricklade, settlement is dispersed throughout the area and often located on locally elevated ground. Examples include the farm and hamlet on the slopes and summit area of Hailstone Hill, and the settled slopes and summit area of Common Hill to the west of Cricklade. Cricklade Hotel and Country Club is located on the summit area, and includes a golf course, together with the linked hamlets of Chelworth Upper Green and Chelworth Lower Green extending across the south-east facing slopes of the hill. Other settlement comprises hamlets and farmsteads such as Purton Stoke, immediately beyond the study area.

Most vernacular buildings are built of limestone from the Cotswolds, with brick and clay or stone roof tiles also in evidence. The use of local clay as a building material has been evident from Roman times, with brick, tile or ceramic kilns found at Minety and Purton, again beyond the study area, but part of the wider Character Area.

To the south-west of Cricklade, the former RAF Blakehill Airfield was acquired by the Wiltshire Wildlife Trust in 2000 to establish the Blakehill Nature Reserve. Once the home of Dakotas that served in World War II, including the Battle of Arnhem, the airfield is now being restored to an extensive hay meadow, benefiting from a grassland cover that has been part of a non-intensive grazing regime for some years. The goal is to restore the entire site to wildflower-rich status in 15-20 years. In addition to the rich flora, the area will support a range of fauna including roe deer, brown hare and skylarks.

Although woodland is largely absent from the area, the large plantation at Red Lodge containing the house and farm, forms a significant visual backdrop to views in the western part of the area. While views are often constrained by the intervening hedges in the gently undulating ground, glimpses to the higher ground to the south forming the hills of Purton and Broad Blunsdon are evident, as well as wide views over the Thames Clay Vale to the north.

10.4 The Character Types and Areas of the Cotswold Water Park
ROLLING CLAY LOWLAND FARMLAND

Evaluation of the Rolling Clay Lowland Landscape Type

Positive Landscape Features of Significance

- A predominantly peaceful rural landscape with gently rolling landform and rising slopes to the south;
- Productive agricultural landscape of mixed arable and improved pasture with a well managed character;
- Seasonal variations in colour and texture associated with areas of arable farming providing visual diversity;
- Strong pattern of hedgerows and mature, mainly oak and ash hedgerow trees enclosing a mosaic of fields ranging from small scale irregular to medium sized enclosures;
- Network of streams and ditches with rich riparian vegetation including pollarded willows.
- Some areas of ancient woodland and wet woodland of high ecological value in the wider area
- Areas of neutral and unimproved neutral grassland imparting a richness to the local landscape;
- Intermittent views across the Thames floodplain and rising Limestone ridge to the south from more open and elevated areas;
- Dispersed pattern of settlements and farmsteads with a mix of traditional local vernacular representing both Cotswolds limestone and local brick influences; and
- Network of quiet rural roads with little through traffic contributing to the peaceful rural character.

Forces for Change

- Agricultural land management changes in response to a shift from a subsidy based to an open market driven economy linked to the Single Farm Payment (SFP), and wider effects of rising cost of fuel and world food shortages;
- Requirement for farmers and landowners to meet 'Good Environmental and Agricultural Conditions' (GAEC) under the SFP leading to environmental benefits;
- Population increase and demographic changes leading to pressure for new development around existing settlements, including more affordable housing and retirement dwellings;
- Increasing traffic on both principal and narrower local rural lane network as a consequence of increase in resident population, visitors to the CWP and commercial traffic;
- Ongoing and future mineral extraction and restoration within land in adjacent areas of River Basin Clay Vale and effects arising from land use changes and on wider setting;
- Increasing demand for leisure and recreation developments linked to the proximity of the principal wetland areas of the CWP; and
- Climate Change affecting long term changes in: habitats and patterns of species movement, and potential decline or vulnerability of habitats; crop types within agricultural land; and potential introduction of biofuels to contribute to renewable energy targets.

Threats and Opportunities

- Conflicts in agricultural land management practices, with the need to farm more intensively in response to effects of world commodity prices and market trends balanced against the wider aspiration for farmers to manage their land in an environmentally beneficial way as 'stewards of the environment'.
- Potential amalgamation and enlargement of arable land in response to more intensive farming methods resulting in increase in perceived scale of landscape;
- Decline in quality of agricultural land, with loss of or poor management of hedgerows and mature hedgerow trees and boundaries, and decline in pasture, particularly at settlement fringes, through equestrian use or poor stewardship;
- Loss of open ditches and waterside trees;
- Reduction in areas of developing biodiversity interest linked to withdrawal of set aside land;
- Increasing demand for biofuel crops through renewable energy targets and market forces and potential effects on landscape character through introduction of crops such as Miscanthus and short rotation Willow;

- Opportunities and benefits for landscape character and biodiversity enhancement arising from the take up of Higher and Entry Level Environmental Stewardship schemes;
- Continuing pressure on rural settlements for new dwellings and urban fringe developments and effect on village morphology and character;
- Dilution or imitation of local vernacular for new dwellings with use of inappropriate materials; 'suburban' styles and detailing; and loss of spaces between dwellings affecting historic and visual interrelationships;
- Counterbalance of opportunities for enrichment of settlement character and form through appropriate sensitively designed and located development that complements the existing built and settlement form but also reflects contemporary design;
- Opportunities for carefully designed and integrated leisure and recreational developments linked to Cricklade as a key Gateway zone and proximity to Cricklade Country Way;
- Diminution of rural tranquillity through increased traffic particularly on local road network;
- Standardisation of road network and particularly on the narrower local rural lanes through alignment improvements, introduction of kerbing, lighting, ‘amenity planting’ and signage, and effect on historic patterns of movements between settlements and their local character; and
- Opportunities for implementation of environmental enhancement within settlements and provision of wider access to the surrounding rural landscape.

Condition Statement

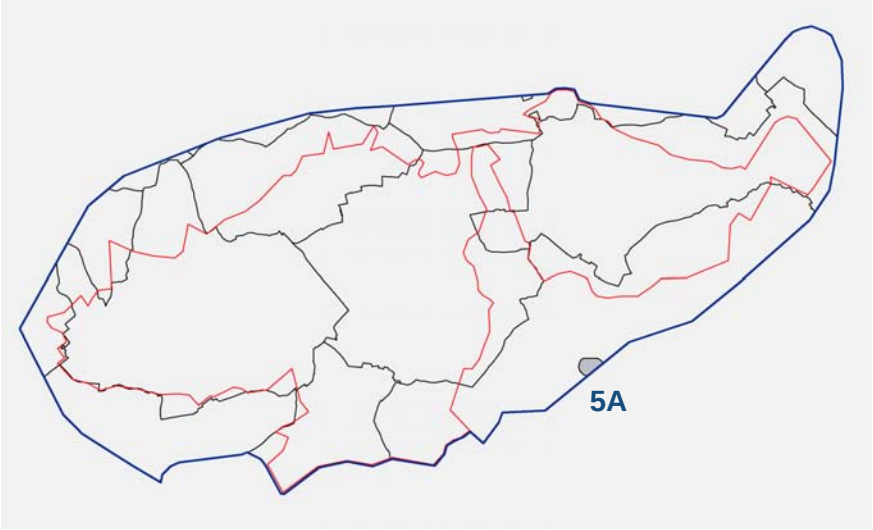
The condition of the Rolling Clay Lowland is generally judged as **Good**. These are areas of mixed pastoral and arable farmland with mainly intact hedgerows, some woodlands and hay meadows of high ecological value and towns and villages of vernacular materials. There are a few elements in **Poor** condition such as gappy and flailed hedgerow and hedgerow trees that are over-mature with few replacement young trees. In some settlements there are inappropriate buildings that do not accord with the local vernacular or adversely affect the overall condition and character of the settlement.

Strength of Character

The Rolling Clay Lowland within the CWP study area is generally a peaceful rural landscape with intact hedgerows, intermittent woodlands and areas of hay meadows and occasional towns and small villages and dispersed farmsteads of local vernacular materials. These contribute to an overall impression of a mature and established landscape. However, within the wider area to the south of the CWP the changing pattern of the land use of mixed arable and pastoral farming, equestrian uses, and the influence of urban fringe development and busier road corridors, and the resultant noise and light pollution, reduce the overall strength of character of the type to **Moderate**.

Inherent Landscape Sensitivities

- The generally peaceful nature of the rural areas;
- The character and quality of the agricultural landscape including the hedgerow network and hedgerow trees;
- Watercourses and streamside willows and other riparian vegetation.
- The traditional structure and visual unity and setting of the dispersed settlements with many dwellings displaying characteristics that are typical of the local vernacular;
- Assemblages of historic landscape features that are evidence of progressive layers of past occupation notably medieval and enclosure fields, remnants of ridge and furrow, and the Saxon settlement of Cricklade; and
- Areas of high ecological value including species rich hay meadows and occasional areas of ancient woodland and dispersed unimproved grasslands.



CHARACTER AREAS

5A Lus Hill

5.5.1 Key Characteristics

- Rolling elevated ridgeline with occasional isolated outliers, defining a linear outcrop of the Stanford and Coral Rag Formation Limestones;
- Gently sloping or level ridge summits with accordant heights contrasting with the steep slopes that extend down to the surrounding clay lowland;
- Predominantly pastoral landscape with some arable fields;
- Large fields with a network of hedgerow with numerous hedgerow trees;
- Scattered tree clumps and woodland blocks, with some ancient woodland, including prominent woodlands on summit areas and isolated outliers;
- A settled landscape with a number of villages and small towns, and scattered farmsteads;
- A variety of building styles ranging from distinctive stone buildings in historic village centres to modern development using a mix of materials;
- Urban influences due to the proximity of Swindon and other settlements, military complexes and the principal road network;
- An intricate network of rural roads connecting the villages and farms; and
- Panoramic views from higher ground, particularly from the north-west facing scarp slopes.

5.5.2 The Settled Limestone Ridge within the Cotswold Water Park Study Area

The Settled Limestone Ridge Landscape Character Type is represented by a very small area within the south-eastern part of the study area, forming an outlier of a ridge of elevated land that extends through Oxfordshire and into the north-eastern and central northern part of Wiltshire, to Lyneham and Bremhill. It forms a prominent area of elevated land that rises above the Thames River Basin Clay Vale to the north and the broad Vale of the White Horse to the south. The ridge is variously referred to as 'The Golden Ridge' and 'The Corallian Ridge' in Oxfordshire and also the Midvale Ridge by Swindon Borough.

While the descriptions that follow are applicable to the broader Landscape Character Type, they are principally focused towards the area to the south-east of the Cotswold Water Park study area, where the ridgeline forms a well-defined skyline.

10.5 The Character Types and Areas of the Cotswold Water Park
SETTLED LIMESTONE RIDGE

5.5.3 Landscape Character

The Settled Limestone Ridge comprises a belt of north-east / south-west aligned limestone hills, together with a series of locally distinctive outliers. The prominent ridgeline and outliers rise sharply up from the lower lying Clay Vale along the north-western boundary with a steep scarp slope in places. The boundaries of the type generally follow the base of the slopes to the surrounding lower lying Vale. To the south-east, however, the transition to the Clay Vale areas is more gradual. Land cover is predominantly pastoral farmland although there are pockets of arable and horse pasture. The fields are generally large and divided by a network of hedgerows with numerous hedgerow trees and intermittent woodland clumps, although the hedgerows have become flailed and more open in places. Smaller, more sinuous fields indicative of medieval enclosure are also present in more isolated areas. Settlement has a considerable influence over the area, notably the ridge top settlements of Highworth and Broad Blunsdon, and further south, the more extensive urban area of Swindon.

5.5.4 Physical Influences

The ridgeline is underlain by the sandstones and limestones of the Stanford and Coral Rag Formations of the Jurassic Period. The superior resistance of these rock formations has resulted in an elevated ridge that rises above the softer and more easily eroded Oxford Clay to the north that underlies the Thames River Basin Clay Vale.

The belt of rolling land rises from approximately 90m to 140m AOD. The north-western facing slopes are generally steep, while the eastern slopes are gentler, with a more gradual transition into the neighbouring Gault Formation Mudstone that underlies the Vale of the White Horse. A number of outliers are located along the north western face of the ridge such as Crouch Hill, Little Crouch Hill and Lus Hill. These represent remnants of the ridgeline which has retreated south-eastwards through progressive erosion.

5.5.5 Human Influences

The hill fort at Castle Hill to the north-east of Broad Blunsdon is evidence of occupation of the area in the Iron Age period. The Romans established a settlement on Swindon Hill, and the area was more widely settled during the Saxon period, with evidence of the foundation of settlements during this period, such as Swindon and Wootton Bassett. The smaller villages in the area also have Saxon or often medieval cores. Enclosure of the landscape occurred through the medieval period with small irregular field patterns still visible today in the more remote parts of the area. However, most fields are indicative of more recent enclosure.

5.5.6 Buildings and Settlement

Settlement has a strong effect on the character of the Landscape Type. The influence of the urban centre of Swindon and other large settlements such as Wootton Bassett, Purton, and Highworth is significant. The edge of Swindon is mixed in character with a number of different land uses including large industrial warehouses, residential estates, recreation areas and transport infrastructure creating a fragmented feel.

Perched on the higher ground of the ridgeline, the settlements of Highworth, Hannington and Broad Blunsdon are clearly visible from the study area and the lower lying Thames River Basin Clay Vale. Although less distinct, the northern fringe of Swindon is also evident in the eastern part of the study area with the town forming a distant built horizon that contrasts with the rural landscape of other sections of the ridgeline. Elsewhere, settlement consists of smaller villages, connected by a network of rural roads. Originally nucleated and centred at junctions, the villages have frequently expanded through ribbon development along the lanes. Building materials and styles are mixed, with the central cores of the villages frequently including fine stone buildings. Beyond the historic core, more recent developments have used a variety of materials including Coral Rag in rubble walls, Cotswold limestone, wood cladding and brick.

5.5.7 Landscape Character Area

5A Lus Hill

Lus Hill comprises a small, isolated outlier of the Settled Limestone Ridge located to the north-west of the most northerly spur of the ridge in Wiltshire. It is underlain by the sandstones and limestones of the Stanford and Coral Rag Formations. Rising above the surrounding River Basin Clay Vale to a height of 113m AOD, it forms a small but distinctive conical hill with steep slopes on all sides. Its prominence is enhanced by a block of predominantly deciduous woodland that cloaks its north-eastern slopes. The elevated summit affords expansive views across the River Basin Clay

Vale to the west, north and east, and particularly across the Castle Eaton and Inglesham Clay Lowlands in the foreground.

In common with the settled character of the wider Landscape Type, Lus Hill supports a substantial stone property, located within the woodland on the summit of the hill. In addition to this private residence, and its woodland setting, the hill is also farmed, with Lus Hill Farm occupying the lower north-west facing slopes. The hill slopes are predominantly under pasture contrasting with the mixed arable and pasture land within the surrounding lower lying land within the Vale.

Evaluation of the Settled Limestone Ridge Landscape Type

As noted in Section 9.5, the area represented by this Landscape Type within the CWP study area is very limited and forms a small fragment on the margin of a much larger area extending across the Settled Limestone Ridge. The evaluation descriptions are therefore applicable to this wider area.

Positive Landscape Features of Significance

- Distinctive rolling elevated landform with isolated outliers;
- Predominantly pastoral landscape with some arable fields contained within a strong network of hedgerows and hedgerow trees;
- Scattered tree clumps and woodland blocks, with some ancient woodland, including prominent woodlands on summit areas and isolated outliers;
- Peaceful but settled landscape with a dispersed pattern of small towns, villages and farmsteads with buildings in local vernacular within historic cores of settlements;
- An intricate network of rural roads and public rights of way connecting the settlements and farms;
- Features of heritage interest within the wider area beyond the CWP including an Iron Age earthwork, Roman remains, Saxon settlements and evidence of medieval field patterns;
- Wide views from the scarp slope and outliers over surrounding lowland clay vale;

Forces for Change

- Agricultural land management changes in response to a shift from a subsidy based to an open market driven economy linked to the Single Farm Payment (SFP), and wider effects of rising cost of fuel and world food shortages;
- Requirement for farmers and landowners to meet 'Good Environmental and Agricultural Conditions' (GAEC) under the SFP leading to environmental benefits;
- Population increase and demographic changes leading to pressure for new development around existing settlements, including more affordable housing and retirement dwellings;
- Increasing traffic on both principal and narrower local rural lane network as a consequence of increase in resident population, visitors to the CWP and commercial traffic; and
- Climate Change affecting long term changes in: habitats and patterns of species movement, and potential decline or vulnerability of habitats; crop types within agricultural land; and potential introduction of biofuels to contribute to renewable energy targets.

Threats and Opportunities

- Conflicts in agricultural land management practices, with the need to farm more intensively in response to effects of world commodity prices and market trends balanced against the wider aspiration for farmers to manage their land in an environmentally beneficial way as 'stewards of the environment';
- Potential amalgamation and enlargement of arable land in response to more intensive farming methods resulting in increase in perceived scale of landscape;
- Decline in quality of agricultural land, with loss of or poor management of hedgerows and mature hedgerow trees and boundaries, and decline in pasture, particularly at settlement fringes, through equestrian use or poor stewardship;

- Reduction in areas of developing biodiversity interest linked to withdrawal of set aside land;
- Increasing demand for biofuel crops through renewable energy targets and market forces and potential effects on landscape character through introduction of crops such as Miscanthus and short rotation Willow;
- Opportunities and benefits for landscape character and biodiversity enhancement arising from the take up of Higher and Entry Level Environmental Stewardship schemes;
- Wider area vulnerable to significant development pressure with urban influences and encroachment of urban fringe developments and infrastructure;
- Continuing pressure on rural settlements for new dwellings and developments and effect on village morphology and character;
- Dilution or imitation of local vernacular for new dwellings with use of inappropriate materials; 'suburban' styles and detailing; and loss of spaces between dwellings affecting historic and visual interrelationships;
- Counterbalance of opportunities for enrichment of settlement character and form through appropriate sensitively designed and located development that complements the existing built and settlement form but also reflects contemporary design;
- Diminution of rural tranquillity through increased traffic particularly on local road network;
- Standardisation of road network and particularly the narrower local rural lanes through alignment improvements, introduction of kerbing, lighting, 'amenity planting' and signage, and effect on historic patterns of movements between settlements and their local character; and
- Opportunities for implementation of environmental enhancement within settlements and wider access to the surrounding rural landscape.

Condition Statement

Within the CWP study area the Settled Limestone Ridge comprises a mosaic of well managed agricultural land and mature woodland together with a distinctive hill top stone residence and farmstead. The condition of this landscape is **Good**. Beyond this isolated outlier, the well cared for pastoral farmland that extends across the wider landscape is also generally in **Good** condition. However, closer to larger settlements and the main transport routes the landscape becomes more degraded with areas of gappy and flailed hedgerows and urban fringe land uses, such as horse pasture. The overall condition of the Limestone Ridge Landscape Type is therefore considered to be **Medium**.

Strength of Character

Within the CWP study area the small area of Settled Limestone Ridge has a **High** strength of character as a result of the well balanced and unified mosaic of mature woodland, agricultural land and settlement. Across the wider extent of the landscape type, however, the Limestone Ridge Landscape Type is a landscape of **Moderate** character. The mix of land uses around large settlements and the ribbon development expansion of smaller settlements create a fragmented feeling. The area is also disturbed by the visual and acoustic intrusion of the major roads, the inconsistent building materials and styles and a sense of urbanisation intruding on the otherwise rural landscape of pastoral fields with an intact pattern of hedgerows, hedgerow trees and small woodlands.

Inherent Landscape Sensitivities

- The generally peaceful nature of the pastoral landscape;
- The character and quality of the well managed agricultural landscapes, including the hedgerow network and hedgerow trees;
- The traditional structure and visual unity and setting of the dispersed settlements with many dwellings displaying characteristics that are typical of the local vernacular;
- Assemblages of historic landscape features that are evidence of progressive layers of past occupation notably medieval and enclosure fields and remnants of ridge and furrow;
- Areas of high ecological value including dispersed areas of unimproved pasture and scattered areas of ancient woodland;
- Expansive views across the lowland clay vale from the escarpment edge;

Key Landscape Character Assessment Terms

Analysis: The process of dividing up the landscape into its component parts to gain a better understanding of it.

Approach: The step-wise process by which landscape assessment is undertaken.

Assessment: Term to describe all the various ways of looking at, analysing, evaluating and describing the landscape.

Character: A distinct, recognisable and consistent pattern of elements in the landscape that makes one landscape different from another, rather than better or worse.

Characteristics: Elements or combinations of elements, which make a particular contribution to distinctive character.

Characterisation: The process of identifying areas of similar character, classifying and mapping them and describing their character.

Elements: Individual components which make up the landscape, such as trees and hedges.

Features: Particularly prominent or eye catching elements, such as tree clumps, church towers, or wooded skylines.

Land cover: Combination of land use and vegetation that cover the land surface.

Landform: Combinations of slope and elevation that produce the shape and form of the land surface.

Landscape: Primarily the visual appearance of the land including its shape, form and colours. However, landscape is not purely a visual phenomenon. The landscape relies on a range of other dimensions including geology, landform, soils, ecology, archaeology, landscape history, land use, architecture and cultural associations.

Objective: Method of assessment in which personal feelings and opinions do not influence characterisation.

Subjective: Method of assessment in which personal views and reactions are used in the characterisation process.

Other Technical Terms

Alluvium: Sedimentary deposits resulting from the action of rivers, including those laid down in river channels, floodplains, estuaries and lakes.

Ancient woodland: Land continuously wooded since AD 1600. It is an extremely valuable ecological resource, usually with a high diversity of flora and fauna.

Cornbrash: Name applied to the uppermost member of the Bathonian stage of the Middle Jurassic formation in England. It is an old English agricultural name applied in Wiltshire to a variety of loose rubble or 'brash' which, in that part of the country, forms a good soil for growing corn. The name was adopted by William Smith for a thin band of shelly stone which, in the south of England, 'breaks up in the manner indicated'. Although only a thin group of rocks (10-25ft / 3.0-7.5m), it is remarkably persistent, and may be traced from Weymouth to the Yorkshire coast. The Cornbrash is a very fossiliferous formation. The fauna indicates a transition from the Lower to the Middle Oolites, although it is probably more closely related to that of the beds above than to those below.

Domesday Book: Conceived by William the Conqueror at Christmas 1085 in Gloucester, the survey was the most comprehensive and detailed record compiled anywhere in Europe in the Middle Ages. The survey's primary purpose was to provide maximum yield from land tax. The name arose in the 12th century to signify, like the day of judgement, there could be no appeal from its verdict.

Geology: The study of the origin, structure, composition and history of the Earth together with the processes that have led to its present state.

Glacial: Term used to describe a cold phase during an ice age.

Iron Age: (c. 750 BC – AD 43) A cultural phase of mankind's evolution when technical improvements in iron-working enabled iron tools and weapons to replace those of the preceding Bronze Age. Population growth led to competition for land and the development of a more territorial society. Improved farming technology and scarcity of land brought about the cultivation of heavier and poorer soils.

11.0 GLOSSARY

Jurassic: The middle period of the Mesozoic era, preceding the Cretaceous and succeeding the Triassic and named after the Jura Mountains of central Europe. It commenced about 195 million years ago and terminated 135 million years ago during which time dinosaurs reached their maximum size. Rock strata consist of varying thicknesses of clays, limestones and some sandstones that were deposited in fluctuating shallow seas, interspersed with periods of estuarine and fluvial deposition. The principal divisions present in the northern perimeter of the Cotswold Water Park study area are (in ascending order) Inferior Oolite (limestones, clays and sandstones) and Great Oolite (limestones).

Mesotrophic: Water containing a normal amount of nutrients.

Neolithic: (c. 4,000 – 2,500 BC) An archaeological term used to describe the 'new stone' age. This applies to the culture achieved during the middle Post Glacial when mankind had begun to polish and grind stone artefacts (a technological advance from the bashing and flaking of the Palaeolithic and Mesolithic). The Neolithic also saw the introduction of agriculture.

Oolite: A sedimentary rock made up essentially of ooliths; spherical rock particles formed by the gradual accretion of material around an inorganic (e.g. sand) or organic (e.g. shell) nucleus. Ooliths are small and their appearance has been likened to fish roe (from where their name is derived.

Outcrop: The area where a particular rock appears at the surface.

Ridge and Furrow: A linear pattern of ridges and furrows evident in some fields is a remnant of a former medieval open field system. This well established system of land management during the medieval period was widespread across much of lowland England. The unit of cultivation was the strip (land or selion), which varied in length and width depending on local conditions. The strips were grouped together into furlongs and a number of furlongs formed the field. The up and down ploughing of the strips threw soil into the centre of the strip and over time created the distinctive ridge and furrow landform which may be used to identify remnants of open fields in the landscape today.

Ridge and furrow type landforms are also evident in water meadow landscapes and areas where steam ploughing was employed. Good examples survive where the open arable fields became permanent pasture following the Black Death in the 14th century and when arable land was enclosed in the late 18th and 19th centuries. Elsewhere, the act of enclosing the land, subsequent consolidation of the strips and continued ploughing for arable production, has obliterated the patterns of ridge and furrow.

Riparian: Riverbank habitats.

Topography: Term used to describe the surface features of the earth's surface.

Vernacular: Built in the local style, from local materials.

Water Meadow: Water meadows are provided with channels to carry water on to the pasture and then to drain it off again with the intention of keeping a trickle of water flowing through the roots of the spring growth to warm them and protect from frosts. The result is faster grass growth and an earlier first bite - several weeks earlier if the spring is cold. For over 300 years water meadows supplied early grazing and the first, most valuable hay crop. They have almost all ceased operation due to the cost of the labour required to maintain them and the difficulty of working them with machinery. In many instances all that remains of water meadows are the banks and ditches that controlled the water. These often only survive where pasture has endured and protected the earthworks from ploughing or development.

Abbreviations

AOD:	Above Ordnance Datum
AONB:	Area of Outstanding Natural Beauty
BAP:	Biodiversity Action Plan
CWP:	Cotswold Water Park
CWS	County Wildlife Site
CWPJC:	Cotswold Water Park Joint Committee
GIS:	Geographical Information System
KWS:	Key Wildlife Site
LDF:	Local Development Framework
SAC:	Special Area of Conservation; prefix 'c': Candidate;
SPA:	Special Protection Area; prefix 'p': Provisional
SSSI:	Site of Special Scientific Interest
RSS:	Regional Spatial Strategy

A comprehensive list of Core References is included in the Landscape Character Assessments undertaken for Gloucestershire and Wiltshire in their respective reports. The information gained from these references has been taken into account, and where appropriate, integrated into this current study. The documents listed below represent the core references.

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This Landscape Character Assessment for the Cotswold Water Park has been principally based on the earlier assessments undertaken for Gloucestershire and Wiltshire counties, together with reference to the Oxfordshire Wildlife and Landscape Study in respect of the small areas within the study area that lie within Oxfordshire. Further detail was also provided by the North Wiltshire Landscape Character Assessment.

Both the Gloucestershire and Wiltshire studies involved wide consultation. Many aspects of the information gained from these earlier consultations have therefore been taken into account, and where appropriate, integrated into this current study. Reference should therefore be made to the wide ranging consultees in these earlier studies.

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