

CHILTERNNS AREA OF OUTSTANDING NATURAL BEAUTY MANAGEMENT PLAN 2019-2024

Caring for the Chilterns forever & for everyone



CHILTERNNS
CONSERVATION BOARD

A scenic landscape of rolling green hills under a cloudy sky. The foreground is filled with a field of purple flowers. The middle ground shows a valley with green fields and scattered trees. The background features more rolling hills and a forested ridge. The sky is filled with large, white, fluffy clouds.

*A landscape of
remarkable beauty*



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Ministerial Foreword

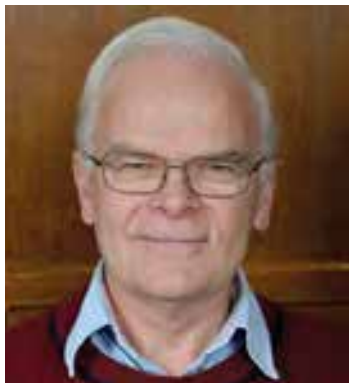
I am fortunate that England's Areas of Outstanding Natural Beauty (AONB) are part of my Ministerial responsibilities. Whether it be rolling hills, sweeping coastline or a tranquil village, spending time in an AONB can stir the heart and lift the spirit.

This is a pivotal moment for all AONBs. The Government has set its ambition in the 25 Year Environment Plan which states clearly the importance of natural beauty as part of our green future, while AONBs retain the highest status of protection for landscape through national planning policy. Leaving the EU brings with it an opportunity to develop a better system for supporting our farmers and land managers, who play such a vital role as stewards of the landscape. And the Review of National Parks and Areas of Outstanding Natural Beauty led by Julian Glover – the first of its kind for generations – will make recommendations to make sure our designated landscapes can flourish in the years ahead.

In my visits to AONBs around the country, I have been struck by the passion of many people – farmers, volunteers, and hard-working staff – for the beautiful places they live and work. In this spirit I am delighted to welcome publication of this Statutory Management Plan for The Chilterns AONB. It is significant that this plan will be delivered in partnership by those who value The Chilterns AONB. I would like to thank all those involved in preparation of this document and wish you the best of success in bringing it to fruition.

A handwritten signature in black ink that reads "Lord Gardiner of Kimble". The signature is written in a cursive, flowing style.

Lord Gardiner of Kimble, Parliamentary Under Secretary of State for Rural Affairs and Biosecurity Department for Environment, Food and Rural Affairs



Chairman's Foreword

The Chilterns Area of Outstanding Natural Beauty (AONB) is nationally protected as one of the finest landscapes in the UK and is a truly 'living landscape'. Its unique offering of ancient woodland, chalk streams, farmland, chalk downland and cultural heritage is shaped not just by natural processes but also generations of human activity.

All organisations responsible for AONBs are required to create a Management Plan every five years, and this Plan for 2019–2024 provides a vision and policies to help guide the work of those who care for this special place. We have worked closely with partners and the public in developing this Plan, and we hope a renewed partnership approach will ensure that everyone who can play a role in caring for the Chilterns will be able to contribute to achieving its aspirations.

The Chilterns Conservation Board has achieved a great deal in the last five years, from advising on local plans and planning matters to developing multi-year, strategic projects that have attracted millions of pounds in funding and benefit landscape restoration, nature conservation and communities in our area. We continue to work with key partners to create programmes that promote the widespread benefits the Chilterns offers, including health and wellbeing opportunities for the millions of people who live nearby.

However, despite this good news, pressures and threats remain. Our natural resources are under unprecedented pressure from development, infrastructure, pests, diseases and climate change. As I write this Foreword, the impacts of Brexit, the Glover Review and local authority restructuring are not yet known. The work we collectively undertake to care for our AONB must continue despite this uncertainty.

Our country needs green spaces and the powerful benefits of nature now, more than ever. I commend this ambitious Plan to all those who will help care for the Chilterns AONB in the future.

A handwritten signature in black ink that reads "Ian Reay". The signature is written in a cursive, flowing style.

Ian Reay, Chairman, Chilterns Conservation Board



*Conserve & enhance the
natural beauty of the area*

1. INTRODUCTION

About the Chilterns

The Chilterns is a landscape of remarkable beauty and distinctive character with a unique interaction of geological, ecological and cultural heritage features. Designation of the Chilterns as an AONB was in 1965, with an extension in 1990. It now extends over 833km² of mainly privately-owned land. The Chilterns is a home and a workplace for over 80,000 people and some 1.6 million people live within 8km of the AONB.



In particular the Chilterns was designated to protect its special qualities which include the steep chalk escarpment with flower-rich downland, woodlands, commons, tranquil valleys, ancient routes, villages with brick and flint houses, chalk streams and a rich historic environment of hillforts and chalk figures.

What is an Area of Outstanding Natural Beauty?

'Area of Outstanding Natural Beauty' is a designation for an area of land that is of national importance for its natural beauty. The origins of AONBs are in the National Parks and Access to the Countryside Act of 1949. In June 2000, the government confirmed that AONBs have the same level of landscape quality and share the same level of protection as National Parks.

The single purpose of AONB designation is 'to conserve and enhance the natural beauty of the area'¹. All public bodies have a legal duty to 'have regard' to the purpose of conserving and enhancing the natural beauty of an AONB².

What is natural beauty?

The term 'natural beauty' is enshrined in the 1949 National Parks and Access to the Countryside Act. Legislation has made it clear that natural beauty is not just the look of the landscape since, but includes the landform and geology, the plants and animals, the landscape features and the rich history of human settlement over the centuries³. In 2006 legislation clarified that land is not prevented from being treated as of natural beauty by the fact that it is used for agriculture, woodlands or as a park; or because its physiographical features are partly the product of human intervention in the landscape⁴.

¹Countryside and Rights of Way Act 2000: Section 82 ²Countryside and Rights of Way Act 2000: Section 85 ³Areas of Outstanding Natural Beauty: A guide for AONB Partnership members, Countryside Commission, CA24, November 2001, p.6. ⁴Natural Environment and Rural Communities Act 2006: Section 99

What is the Chilterns AONB Management Plan?

The Chilterns AONB Management Plan sets out the vision, policies and actions for the management of the Chilterns AONB for the period 2019–2024, and describes how best to conserve, enhance and enjoy the Chilterns. Its creation is led by the Chilterns Conservation Board and it is the only plan which guides the management of the AONB as a whole. It will influence key policies, plans and processes affecting the area, including development plans, neighbourhood development plans, transport plans and green infrastructure strategies.

This Management Plan is a legal requirement under the Countryside and Rights of Way Act 2000⁵.

Who is responsible for preparing the Chilterns AONB Management Plan?

The Chilterns Conservation Board (CCB) is responsible for preparing and publishing the AONB Management Plan for the AONB⁶. Following consultation with local communities, public bodies, partners and agencies with an interest in the area, the Management Plan is adopted by the CCB. The Board promotes its implementation by a wide range of organisations, including local authorities, community groups and land managers.

Who is the Chilterns AONB Management Plan for?

This Management Plan helps all those with a responsibility for the AONB care for it, for current and future generations. The plan provides guidance and policies for everyone with an interest in, or responsibility for, the AONB. That includes all those organisations and

individuals who manage or have an influence over land in the area, as well as those who live, work and enjoy leisure time there.

Global and National Context of the Chilterns AONB

AONBs are part of the global network of protected landscapes. The International Union for the Conservation of Nature and Natural Resources has six management categories covering all types of protected areas. Our AONBs and National Parks fall into Category V – landscapes managed mainly for conservation and recreation.

- The Chilterns AONB is one of 46 AONBs covering just under one fifth of the UK
- AONBs are living, working landscapes that contribute more than £16bn every year to the national economy
- Over two thirds of England's population live within half an hour's drive of an AONB
- Approximately 150 million people visit the English AONBs every year, spending in excess of £2bn⁷

The CCB is an active member of the National Association for AONBs and through this works with other AONBs across the country⁸.



⁵Section 89 of the Countryside and Rights of Way Act 2000 ⁷What Areas of Outstanding Natural Beauty can offer the LEPs, National Association for Areas of Outstanding Natural Beauty, 2017 ⁸For more information: Web: www.landscapesforlife.org.uk Twitter: @naaonb @AONBFamily

The Chilterns Conservation Board

The CCB was established by Parliamentary Order in 2004. It is one of only two conservation boards (the other is for the Cotswolds) set up so far under the Countryside and Rights of Way (CRoW) Act 2000⁹.

The CCB is an independent statutory body and has two statutory purposes¹⁰:

- To conserve and enhance the natural beauty of the AONB
- To increase the understanding and enjoyment of the special qualities of the AONB

In fulfilling these purposes, the CCB has a duty to seek to foster the economic and social wellbeing of local communities. Where there is a conflict between conserving the special qualities of the Chilterns and its use or enjoyment, we must give greater weight to its conservation and enhancement.

About the Chilterns Conservation Board (CCB)

There are 27 Board Members; one from each of the 13 local authorities in the AONB, eight appointed by the Secretary of State for Environment, Food and Rural Affairs, and six elected by parish and town councils in the AONB. The local authorities who created the CCB are Oxfordshire County Council, South Oxfordshire District Council, Buckinghamshire County Council, Wycombe District Council, Aylesbury Vale District Council, Chiltern District Council, South Bucks District Council, Three Rivers District Council, Luton Borough Council, Central Bedfordshire Council, Hertfordshire County Council, Dacorum Borough Council and North Herts District Council.



*AONBs
contribute more than
£16bn every year
to the national
economy*

⁹Section 86 of the Countryside and Rights of Way Act 2000

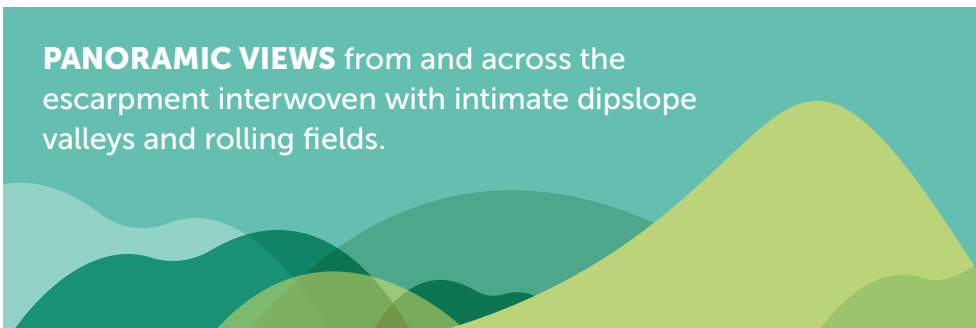
¹⁰Section 87 of the Countryside and Rights of Way Act 2000 as amended by the NERC Act 2006

2. THE SIGNIFICANCE OF THE CHILTERN

Special Qualities

The Chilterns' special qualities are considered so important, nationally and internationally, they require protection.

PANORAMIC VIEWS from and across the escarpment interwoven with intimate dipslope valleys and rolling fields.



Nationally important concentrations of **CHALK GRASSLAND**, extremely **DIVERSE IN FLORA AND FAUNA**, and home to some **SCARCE AND THREATENED SPECIES**. Once extensive, the chalk grassland now only covers 1% of the AONB mostly in small fragments. Species for which the AONB is particularly important include Chiltern gentian, wild candytuft, pasque flower, silver-spotted skipper and glow-worm.



Significant ancient hedgerows, hedgerow and field trees, orchards and parkland weaving across **FARMLAND THAT COVERS** approximately **60% OF THE CHILTERN**.



Relative **TRANQUILLITY** and peace on the doorstep of **TEN MILLION PEOPLE**, one of the most accessible protected landscapes in Europe;



relatively dark skies, of great value to human and wildlife health; unspoilt countryside, secret corners and a surprising sense of remoteness.

One of the most **WOODED LANDSCAPES IN ENGLAND**, with **23% WOODLAND COVER** concentrated in the central and southern areas; **56% OF THE WOODLAND** is Ancient, a particularly rich, distinctive and prominent feature, including the Chilterns Beech Wood Special Area of Conservation; significant box, juniper and beech yew woods; many veteran trees and relict wood pasture.

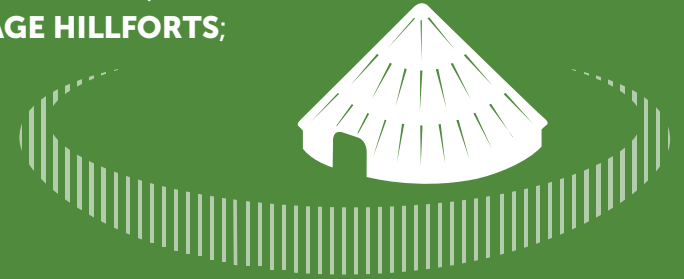


NINE PRECIOUS CHALK STREAMS,

a globally scarce habitat and home to some of the UK's most endangered species; associated UK BAP priority species include otter, water vole, reed bunting and brown trout; numerous chalk springs occur along the base of the escarpment.



An extensive and diverse **ARCHAEOLOGICAL LANDSCAPE**, including ancient parish boundaries, medieval field patterns and **IRON AGE HILLFORTS**; extensive remnants of woodland heritage including sawpits, charcoal hearths and wood banks.



A DRAMATIC CHALK ESCARPMENT,

a globally rare landscape type which gives rise to rare ecology and distinctive cultural heritage.



OVER 2000ha OF COMMON LAND, heaths and greens, **RICH IN WILDLIFE** and cultural heritage; **3700ha OF OPEN ACCESS LAND.**



A dense network of 2000km of rights of way; two **NATIONAL TRAILS**, the Ridgeway and Thames Path; notable regional routes such as the **CHILTERN WAY** and the **CHILTERN CYCLEWAY.**



An **INDUSTRIAL HERITAGE** around wood-working, furniture making, chalk quarrying, brick making, and food production with windmills and watercress beds.



DISTINCTIVE BUILDINGS made from local brick, flint and clay tiles; many **ATTRACTIVE VILLAGES**, popular places to live in and visit; many notable individual buildings and follies including **STATELY HOMES, MONUMENTS** and **MAUSOLEUMS**; a wealth of **MEDIEVAL CHURCHES**, many built from flint.



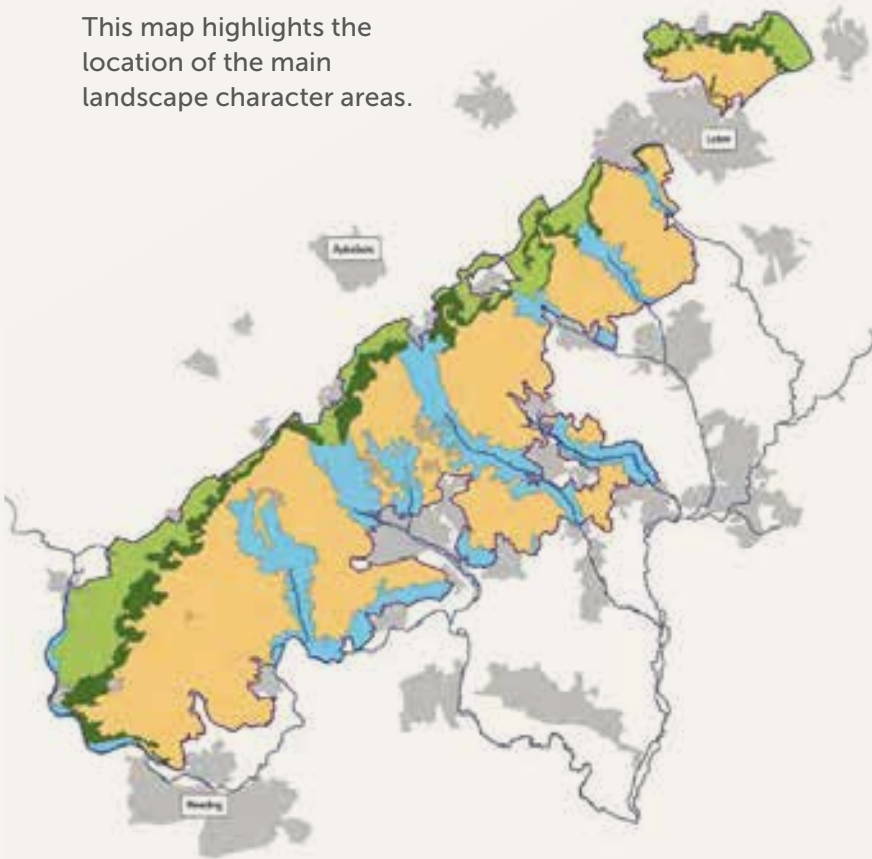
Numerous **ANCIENT ROUTEWAYS** and **SUNKEN LANES** including the Icknield Way, considered by many to be the oldest road in Britain.



Landscape Character Map



This map highlights the location of the main landscape character areas.



The Landscape Character

Landscape Character Assessment (LCA) is a tool to help understand what the landscape is like today, how it has come to be like that and how it may change in the future. LCA documents identify and explain the unique combination of elements and features that make landscapes distinctive by mapping and describing character types and areas.

There is no single LCA for the Chilterns AONB. A number of county and district-based LCAs cover the whole of the AONB. These have been undertaken using similar (but not identical) specifications.

These give us the following four broad types of landscape in the Chilterns:

Scarp Foothills and Vale Fringes

Gently undulating chalk slopes with chalk springs between the base of the scarp and the clay vale to the west. Mainly managed within intensive agriculture with large fields and relatively few hedgerows, this landscape forms a narrow band only a few fields wide, towards the north of the AONB, but widens as it approaches the Thames in the south.

Chalk Scarp

The 'spine' of the Chilterns is the chalk scarp that runs roughly north-east to south-west along the western side of the AONB. A spectacular ridge rises high above the vale to the west and dominates views over a wide area.

Combes and prominent hills, often locations for chalk figures, monuments, burial mounds or hillforts, form a deeply convoluted steep scarp edge which supports a mosaic of chalk grassland, woodland and scrub.

River Valleys

The Chilterns contains a series of larger river valleys that cut through the scarp and dipslope. Arterial valleys run north west to south east and, create dramatic 'wind gaps' where they cut through the scarp, as at Tring and Wendover.

Often asymmetrical in shape these valleys contain the internationally rare, aquifer-fed chalk streams. As natural corridors through the Chiltern Hills, there is a long history of travel from ancient drovers routes, turnpikes and canals to modern day road and rail links. A number of large historic houses presiding over estates and parkland, are scattered throughout the valleys while settlements have grown up associated with the water supply, woodland industry, farming trade and transport links to London.



Plateau and Dipslope

A large proportion of the AONB is covered by plateau and dipslope as the land gradually falls away to the east and Greater London. Though less visible and striking than the scarp, this landscape forms a key part of the classic Chilterns landscape.

The topography is complex, with areas of plateau dissected by long, narrow, often dry valleys. Extensive woodlands and arable fields interspersed with commons, villages, scattered farmsteads (often dating from medieval times) and designed parklands characterise the plateau. Commons, heaths and greens would once have been far more extensive. Many Chilterns commons are wooded or former wood pasture, with areas of heathland, acid grassland,

ponds and other open habitats. Grazed fields can still be found on the steeper valley sides and valley bottoms where settlements often formed around water sources or stretched out along the valley roads.

There is a more detailed description in two separate documents *Landscape Character* and *Chronology* available on the AONB website: www.chilternsaonb.org/landscape-character-and-chronology-of-the-chilterns

Timeline of the Chilterns



Geology of the Chilterns Countryside





AD 410 Late Antiquity & Saxon

Settlements extended up the scarp to become strip parishes, each having a share of lowland arable, upland pasture and hilltop woodland.



AD 1066 Medieval period

The hilly landscape led to a patchwork of small fields and woodlands separated by hedges and earth banks. Wood became valuable as a fuel for brick and tile making.



AD 1485 Tudors to Elizabethans

Political stability enabled farming to prosper; food and fuel supplied to growing London. Piecemeal enclosure saw open fields gradually disappear, leading to the intimate landscape character.



AD 1603 Stuarts to Victorians

Arable farming dominated as metropolitan demand increased. Early maps show the extent of woodland, considered 'ancient' if it is pre-1600, with bluebells often a good indicator.



Cherry orchards increased as pickers could travel from London.



AD 1837 Victorian

Turnpike roads, canals and railways brought population growth and new access to markets.



AD 1870 Late Victorian

Mills for flour, cloth and paper multiplied on the rivers. Chair making marked the start of the furniture industry of High Wycombe.



AD 2011 to present

Rapid growth increasing pressure on the protected landscape, along with new environmental awareness, new technology, and new people keen to explore, learn and protect the countryside.



AD 1980–2010

European agri-environment grant schemes encouraged farming practices to halt the decline in wildlife. John Lawton review resulted in Making Space for Nature paper.



AD 1967 M40

The new M40 cut through the Central Chilterns and led to a rapid increase in housing, transport and noise.



AD 1965 Designation of the Chilterns AONB

Recognition of the importance of landscape and wildlife resulted in the creation of the Chilterns AONB.



AD 1950-60 Post-war agricultural intensification

Some landscape features lost, including hedgerows and habitats; decline of land-based employment, skills and crafts followed.



AD 1949 Sites of Special Scientific Interest

Legal protection was given for the best wildlife and geological sites in England.



AD 1900 Twentieth Century

Chalk pits, such as at Chinnor, quarried for cement, lime and mortar, which were transported on their own railway. Charles Rothschild identified wildlife sites needing preservation – the forerunner of the Wildlife Trust.

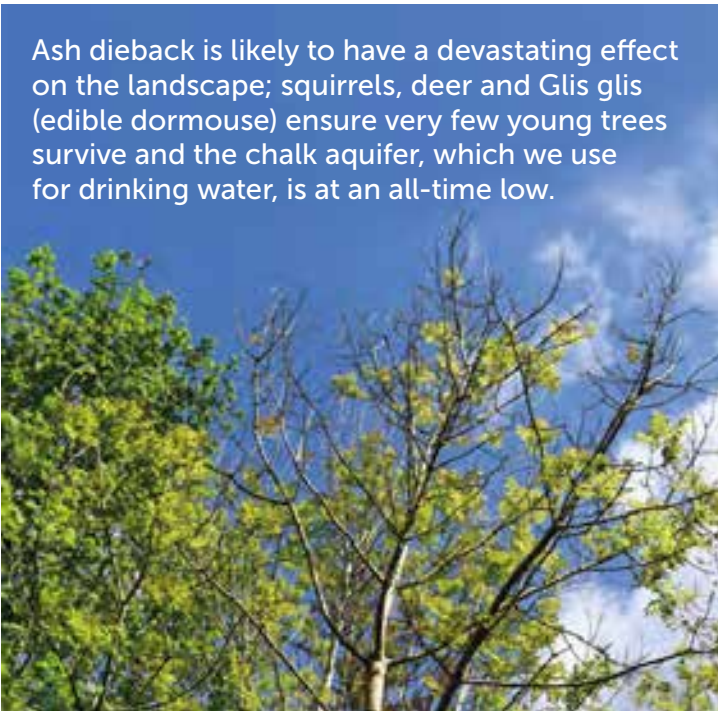


*Almost 60% of the
woodland in the
Chilterns is ancient,
dating back
400 years*

3. THE STATE OF THE CHILTERN

The Chilterns AONB faces unprecedented pressure. From housing and transport infrastructure to climate change, there are many impacts on the natural beauty and special qualities of the Chilterns.

This section provides a snapshot of the state of the Chilterns and summarises key issues affecting the AONB. Tackling these issues requires action at many levels, from local to national and international. This Management Plan outlines what is needed and creates an agenda for action.



Ash dieback is likely to have a devastating effect on the landscape; squirrels, deer and Glis glis (edible dormouse) ensure very few young trees survive and the chalk aquifer, which we use for drinking water, is at an all-time low.

Headline Indicators

1. Environmental Land Management (scheme coverage and take up)

35% (17,956 ha) of the farmland¹² in the AONB is in Environmental Stewardship (ES). This puts the Chilterns in the bottom 10% of all AONBs in England for ES take up.¹³ ES provides funding to farmers and other land managers to deliver environmental management on their land. Take up has fallen from a high of over 30,000ha in 2014. The figures do not yet include take up of the new Countryside Stewardship Scheme that began in 2016.

Current status **POOR** 📉

Trend **DECLINING** ↓

2. Woodland Management

64% of the woodland in the AONB is in active management¹⁴. This puts the Chilterns in the top 40% of all AONBs in England for woodland management. Woodland management is important to create the conditions in which wildlife can thrive.

Current status **FAIR** 👍

Trend **STABLE** ↔

3. Sites of Special Scientific Interest (SSSI)

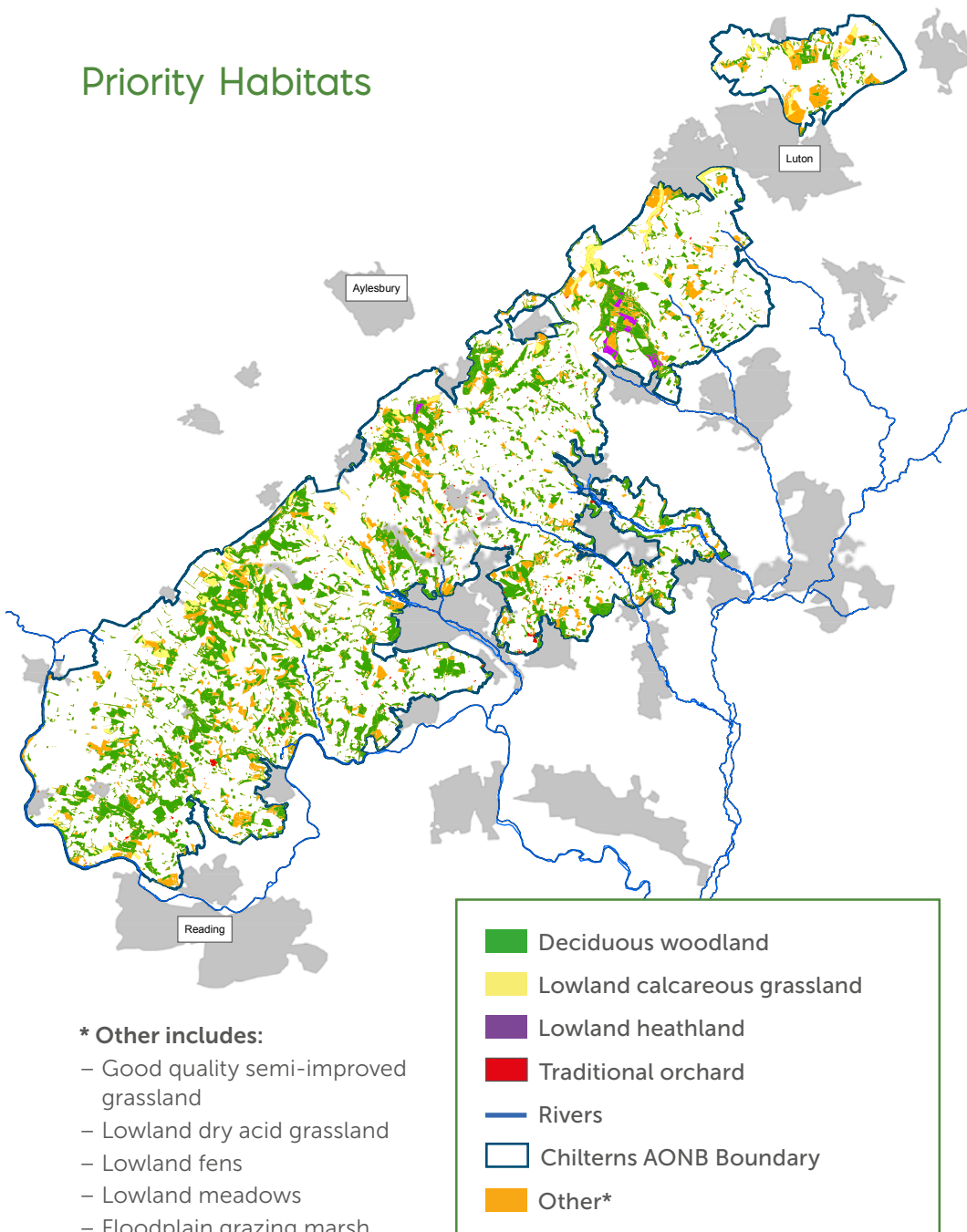
There are 64 SSSIs in the AONB, totalling 3,213ha. Of this, 98.8% is assessed as in favourable or 'unfavourable recovering' condition. Of the 997ha in unfavourable recovering condition, over 70% is calcareous or neutral grassland.¹⁵

Current status **GOOD** 👍

Trend **STABLE** ↔

¹²Farmland' refers to Utilisable Agricultural Area (UAA) ¹³© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2017 ¹⁴© Forestry Commission copyright [2017]; © Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2017 ¹⁵© Natural England copyright. Contains Ordnance Survey data © Crown copyright and database right 2017

Priority Habitats



4. Priority Habitat Extent and Condition

Natural England mapping shows 15,927ha of priority habitat¹⁶ in the Chilterns AONB¹⁷ (see table and map below). These figures do not include linear priority habitats such as the rivers, hedgerows and arable field margins. Many of the priority habitats in the Chilterns, as elsewhere, are likely to be under recorded due to the small and scattered nature of the parcels. Datasets on condition are currently only available for priority habitat within SSSIs and/or Higher-Level Stewardship.

Priority habitat	Area (hectares)	% of priority habitat in the Chilterns AONB	% of priority habitat across all AONBs in England
Deciduous woodland	14,046	88.2%	8.4%
Lowland calcareous grassland	1,303	8.2%	6.4%
Lowland heathland	289	1.8%	1.6%
Traditional orchard	140	0.9%	6.0%
Lowland meadows	51	0.3%	1.3%
Floodplain grazing marsh	39	0.2%	<1%
Lowland dry acid grassland	37	0.2%	1.1%
Lowland fen	18	0.1%	<1%
Purple moor grass and rush pastures	4	0.0%	<1%
Total	15,927		

Current status (extent)

UNKNOWN

Trend

UNKNOWN

Current status (condition)

UNKNOWN

Trend

UNKNOWN

5. Chalk Streams

There are nine chalk streams in the AONB. None are currently assessed as achieving good ecological status or potential¹⁸. Of the nine, two are assessed as in bad condition, four in poor condition and five in moderate condition. This indicates a decline since the 2009 assessment, in line with the national trend. The issues behind the poor and declining state of these rivers are numerous and complex and include impacts of pollution, development, channel modification, invasive species, abstraction, droughts and climate change.

Current status POOR  **Trend** DECLINING 



6. Historic Environment

The condition of most designated heritage assets in the Chilterns has remained largely stable over the past decade.

Heritage Asset type	Number	Number at risk ¹⁹	% at risk	Average % at risk across AONBs in England
Listed building (Grade I)	47	0	0.0%	3.6%
Listed building (Grade II*)	116	2	1.7%	2.6%
Listed building (Grade II)	2026	0	0.0%	0.04
Scheduled Monument	113	8	7.1%	15.0%
Registered Parks and Garden	19	2	10.5%	5.4%

However, the vast majority of known archaeological sites are neither scheduled nor protected and there are significant gaps in our knowledge, particularly in the wooded areas of the Chilterns.

Current status FAIR  **Trend** STABLE 

7. Health Walks

The Chilterns has some of the most popular health walks programmes of any protected landscape in the country. There has been a 45% increase in health walk footfall in the last five years, with 64,000 health walk attendances in 2016–2017 across the AONB.

Current status GOOD  **Trend** INCREASING 

8. Visits to Countryside Sites

Visitor numbers to formal countryside attractions have increased over recent years, in some cases substantially. For example, Wendover Woods saw a 13% increase in visitors (2013–2017) and College Lake saw a 16% increase (2013–2016).

Current status GOOD  **Trend** INCREASING 

¹⁸www.environment.data.gov.uk/catchment-planning/ ¹⁹At risk figures Oct 2016 data Historic England

Forces for Change

The following is a summary of the main forces for change relevant to the Chilterns landscape.

Topic	Key Issues	Predicted Trends and Impacts without Intervention
Biodiversity	<ul style="list-style-type: none"> ● Decline in traditional land management (e.g. mixed farming, crop rotation, grazing, woodland management, orchards, watercress beds and exercise of common rights) ● Change of land use including increase in area of land used primarily for recreation (e.g. golf, liveries, and new businesses such as paintballing) ● Impacts of housing and infrastructure development ● Declines in diversity within habitats ● Nutrification ● Impacts of systemic pesticides ● Impacts of non-native invasive pests and diseases ● Climate change; increasing climatic variation ● Visitor impacts on sensitive sites and habitats, especially along the escarpment ● Unprotected sites ● Habitat fragmentation 	<ul style="list-style-type: none"> ↓ Declines in abundance and range of flora and fora ↓ Reductions in habitat connectivity and resilience ↓ Increasing impacts of pests and diseases ↓ Loss of species diversity within semi-natural habitats, including ancient woodlands and chalk grassland ↓ Loss of hedgerow trees particularly ash ↓ Scrubbing up of grassland sites ↓ Declines in characteristic species and habitats
Historic Environment and Cultural Heritage	<ul style="list-style-type: none"> ● Development pressures ● Changes in land management ● Unprotected sites and landscapes; site specific focus of designation ● Heritage of the Chilterns less recognised and understood than other protected landscapes ● Limited resources 	<ul style="list-style-type: none"> ↓ Loss of historic landscape character ↓ Decline in condition of wider setting of monuments ↔ Condition of designated assets largely stable but a few at risk ↑ Increased archaeological understanding through housing and infrastructure development ↓ Initiatives developed in isolation
Land	<ul style="list-style-type: none"> ● Changes in land management practices ● Global markets contributing to demise of local industry, for example furniture making ● Growing markets in wood fuel and local products ● Low take up and reduced resourcing of environmental schemes (e.g. Countryside Stewardship) ● Brexit – opportunities for influence and change alongside uncertainty for land managers and farmers ● Impact on rural workers of high cost of housing ● Fewer people employed in land management ● Subdivision of woodlands into small plots 	<ul style="list-style-type: none"> ↓ Less commercial need to manage landscape features, such as hedgerows and trees; loss of historic field patterns ↓ Declines in soil health ↓ Sheep grazing of chalk grassland is currently uneconomic leading to declining biodiversity ↓ Under managed woodlands ↓ Decreasing number of holdings, increase in larger holding, more contractors, land sold off for amenity, changes in area of land farmed ↑ Farm diversification resulting from growth in marketing of local products and tourism

Topic	Key Issues	Predicted Trends and Impacts without Intervention
Water	<ul style="list-style-type: none"> ● Environmentally unsustainable levels of abstraction from chalk aquifer leading to chronic low flows and shortening of river habitats ● Abstraction for River Thames at level of no more capacity ● High levels of water usage ● Modifications to water courses ● Poor ecological condition of chalk streams ● Pollution, diffuse and non-diffuse ● Non-native invasive pests and diseases ● Impact of climate change 	<ul style="list-style-type: none"> ↓ Water quality decline ↓ Further degradation of chalk streams, streams and rivers running dry ↓ Failure to reach required Water Framework Directive status ↓ Loss of key landscape features ↓ Impact on ecology and loss of associated wildlife
Settlement and Development	<ul style="list-style-type: none"> ● Highly desirable area, commutable to London ● Unprecedented housing and infrastructure growth within and in setting of the AONB ● Construction of HS2 ● Airport expansion and increased over-flying ● Oxford-Cambridge growth corridor ● Creeping suburbanisation and gentrification ● Lack of affordable housing 	<ul style="list-style-type: none"> ↓ Erosion of character ↓ Increased noise, air/light pollution ↓ Habitat severance, degradation/loss ↓ Less enjoyable to visit ↓ New building designs not locally distinctive ↓ Housing even less affordable for local community
Social	<ul style="list-style-type: none"> ● Population in and around the Chilterns is increasing rapidly ● Some large urban populations on the edge of the Chilterns with relatively high incidence of health issues compared to the AONB; this provides major opportunities for enhancing health and wellbeing through outdoor activity ● Public understanding of the benefits provided by the Chilterns is low ● Low levels of engagement with some audiences (e.g. urban young people, Black and ethnic minority communities) ● Declining public sector funding 	<ul style="list-style-type: none"> ↑ Gradually increasing profile for the area and the opportunities it presents to increase health and wellbeing ↑ Increased number of visitors ↓ Risk of negative impacts of additional visitors to sensitive habitats and sites ↓ Risk of anti-social behaviour (e.g. fly tipping, vandalism, wildlife crime) ↓ Continued lack of engagement with under-represented audiences ↓ Gradual decline in maintenance of rights of way and countryside access infrastructure unless public funding is maintained or new funding secured

A photograph of three children running away from the camera across a vast, green, grassy field. The child on the left is wearing a dark t-shirt and shorts. The child in the middle is wearing a light blue tank top and dark shorts. The child on the right is wearing a red t-shirt and light blue shorts. In the background, there are rolling green hills and a line of trees under a clear sky.

*Caring for the Chilterns
forever & for everyone*

4. THE FUTURE OF THE CHILTERNNS

Vision

Our vision is that the Chilterns will be cared for, forever and for everyone. A place where people are inspired by its distinctive natural beauty, space and tranquillity, to enjoy and care for the landscape. A place where natural beauty and cultural heritage is celebrated and enhanced. A place which gives space for nature to flourish and which provides us with the ingredients for healthy living, such as clean water, healthy soils and thriving wildlife. A place where communities live, work and breathe. A haven for people and wildlife.

To achieve this vision, the CCB advocates that:

1. All special qualities and natural resources of the Chilterns will be protected forever for everyone, current and future generations.
2. The wildlife and natural beauty of the Chilterns have an intrinsic value that will be preserved and restored.
3. The landscape is designated for the nation and will be protected by the nation.
4. To ensure its future care, more people need to understand the value of the Chilterns as a unique and special landscape, of national and international significance.
5. The Chilterns provides a valuable resource for the enjoyment, health and wellbeing of a significant proportion of the country's population.
6. The landscape is a place where many people live and work, where community facilities must be retained to foster sustainable, vibrant communities.
7. Viable, sustainable and diverse farming, forestry and rural economy sectors are essential to conserve and enhance the wildlife and natural beauty of the Chilterns, and public benefits of land management are supported by public funding.
8. As one of the most accessible protected landscapes in Europe, more people should use the Chilterns for quiet recreation, especially the 1.6 million people who live within 8km of the boundary and the adjacent urban populations, with carefully managed access to ensure the special qualities are protected.
9. Those who live in or near, make a living from, visit and love the Chilterns are encouraged to help care for it.
10. Given the Chilterns is already more developed than most protected landscapes and given the potential benefit of the landscape to millions, there should be no major development in the AONB; only the most essential development should take place and where it takes place, there should be no adverse impact on landscape, special qualities or access, and it should deliver an environmental net gain.

Securing the Chilterns for Future Generations

The government aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species and provide richer wildlife habitats. It calls for an approach to agriculture, forestry, land use and fishing that puts the environment first²⁰.

In particular, this Management Plan contributes to what the Environment Plan describes as a *"once-in-a lifetime chance to reform our agriculture and fisheries management, how we restore nature, and how we care for our land, our rivers and our seas."* It also contributes to the achievement of the aim to *"set gold standards in protecting and growing natural capital"*. And it endorses the overarching principle described by the Secretary of State that *"Respecting nature's intrinsic value, and the value of all life, is critical to our mission."*

General Policies

To achieve the above, we have set out four general policies across three key areas, to help conserve and enhance the Chilterns.

National Park Status and Boundary Review

National Parks are extensive tracts of country designated because of their natural beauty and the opportunities they afford for open-air recreation²¹. The Chilterns meets both criteria.

National Park status could help raise the Chilterns' profile as a landscape of national (even international) significance, which the CCB is unable to do alone.

General Policy 1

Explore the case for and against the Chilterns having enhanced status or being designated a National Park.

An application was made in 2013 to Natural England to consider adding areas of the chalk landscape that were missed from the Chilterns AONB designation. This application is still pending.

General Policy 2

Review the boundary of the protected area to cover the wider area of the Chilterns landscape that merits it.

A Renewed Approach to Partnership Working

There are a significant number of organisations that are dedicated to caring for the Chilterns and in their feedback on the Plan, key partners and stakeholders stated that there is a need for a strong strategic partnership across the Chilterns. Collaborative working with local organisations, local authorities, charities and government agencies on delivery of the Management Plan will ensure more is achieved and there is a consistent approach to the conservation and enhancement of the Chilterns. Cross-cutting subjects, such as health and wellbeing initiatives, have been identified as a top priority.

General Policy 3

Establish a strong partnership to deliver the Chilterns AONB Management Plan working together in the best interests of the area, its environment, communities, economy and visitors.

The Chiltern Society

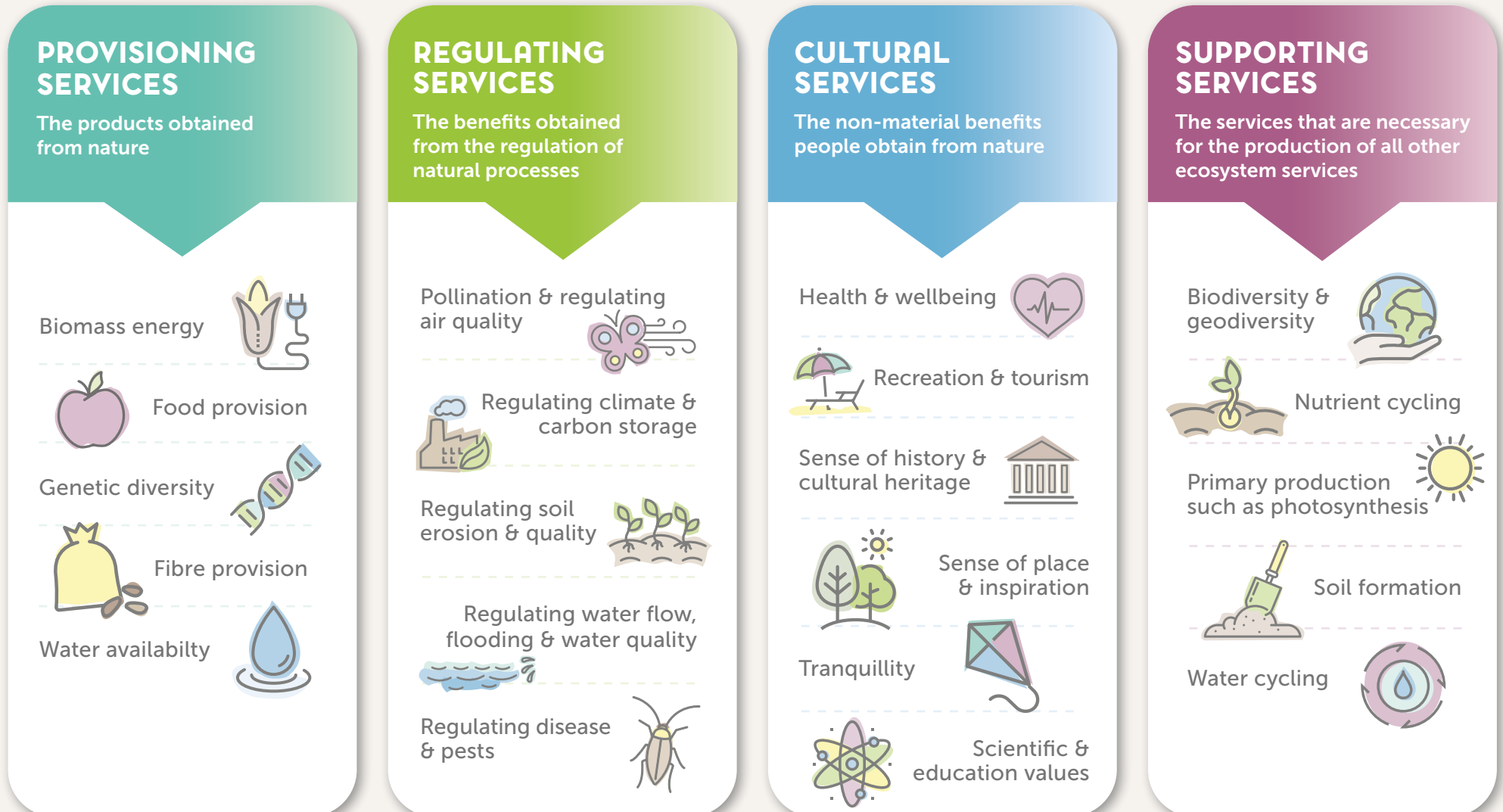
The Chiltern Society is the largest charity operating across all the Chilterns. It has 7000 members and over 500 volunteers working on 20 conservation sites, rights of ways maintenance, planning campaigning, chalk stream monitoring, and heritage sites. Pictured here are volunteers maintaining Whiteleaf Cross, a significant heritage site near Princes Risborough.



“The suite of National Parks and Areas of Outstanding Natural Beauty designated since the 1949 Act has been among the outstanding environmental achievements of the past 100 years.”

Benefitting People and Nature - an Ecosystems Approach

A healthy natural environment underpins the health and wellbeing of society and the economy. The natural resources – or ‘Natural Capital’ – of the Chilterns includes its trees and woodland, chalk streams, aquifer and other water bodies, farmland and grassland, soils, landscape and cultural assets. The benefits or services that we get from these natural resources are known as Ecosystems Services. Ecosystems Services can be broken down into four types:



The AONB can support the wider ecological network of surrounding areas so that they can all become more resilient. Examples of Ecosystem Services provided by the Chilterns include:

- Flint and timber for construction
- Wood for fuel
- Natural flood defences from woodland and grassland
- Pollination by insects
- Carbon storage by woodland and soil
- Chalk aquifer for water supply
- Cultural benefits from a health and recreational perspective
- Locally distinctive food like cheese and beer

The Management Plan aims to use this natural capital provided by the Chilterns more sustainably, to enhance the AONB and contribute to the delivery of the Government's 25 Year Environment Plan²².

Climate change is expected to have a major but unpredictable influence on the natural beauty and natural capital of the Chilterns. It is likely that the long-term changes will alter the species composition of woodlands and the type of crops grown by farmers leading to alteration to the landscape.

The Chilterns can make a significant contribution to helping mitigate climate change in ways that are compatible with conserving and enhancing its natural beauty. These include: carbon capture and storage in Chilterns woodlands and soils, storage and provision of water from the chalk aquifer, resilient ecological networks to allow species movement in response to climate change, local food and wood products, and the Chilterns as 'staycation' destination. As the climate changes and people try to reduce their carbon footprint, more people may decide to holiday in the UK rather than to go abroad, making the Chilterns even more valuable in a national context as sustainable alternative for short and long visits, an outstanding landscape accessible by public transport and on the doorstep of millions in the south east.

General Policy 4

Support projects and proposals that have a positive impact on the ability of the Chilterns to contribute sustainable Ecosystem Services by:

- Sustainably managing land and water environments
- Protecting and providing more, better and joined up natural habitats across the AONB and with adjacent areas, enhancing networks through the landscape
- Protecting and conserving water resources and improving water quality
- Improving the Chilterns' resilience to, and mitigation of, climate change
- Increasing the ability to store carbon through new tree planting, wetland restoration or other means
- Conserving and improving soil structure and quality
- Reducing litter and environmental pollution, especially air pollution
- Managing and mitigating the risk of flooding
- Supporting the sustainable production and local use of food, forestry and raw materials
- Improving opportunities for peoples' health and wellbeing, including provision of high-quality green infrastructure close to where people live
- Stimulating sustainable tourism and economic activity
- Delivering high-quality sustainable design that protects the local distinctiveness of the Chilterns
- Managing or controlling non-native invasive species

²²The Government, A Green Future: Our 25 Year Plan to Improve the Environment, HMSO, 2018

A close-up photograph of a yellowhammer bird perched on a mossy tree branch. The bird has a bright yellow head and neck, with brown and black streaked wings and back. The background is a soft-focus green forest.

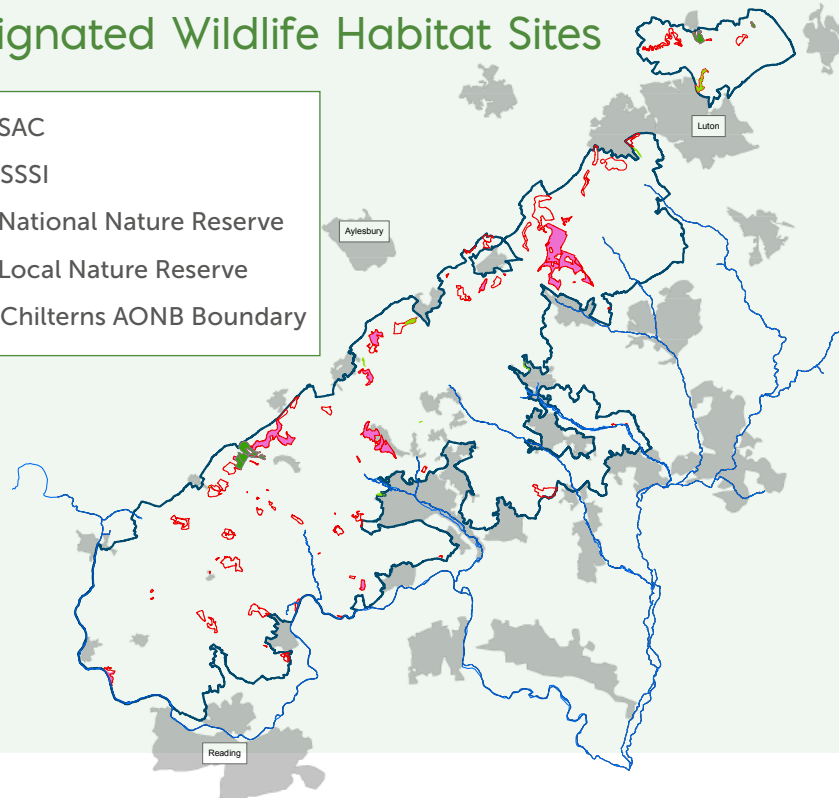
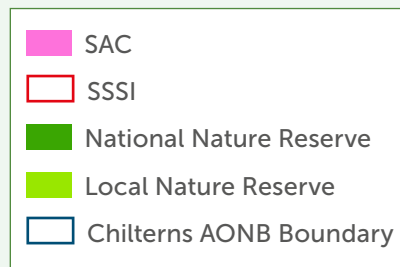
*The Chilterns
9,507ha of sites
designated for
their wildlife
value*

5. NATURE

The Chilterns is home to a wonderful variety of wildlife, including many protected and notable species. The AONB is particularly important for its chalk grassland, chalk streams, ancient woodlands (especially beech) and arable habitats. Fine-grained variations in soils, topography and past management have given rise over millennia to rich habitat mosaics. These include box woodland and juniper scrub, scarp slope and dipslope chalk streams, wayside verges and disused quarries. Wood pasture and veteran trees, heathland and acid grassland (habitats often associated with common land) add to the mix.

The habitats associated with the Chilterns are often a by-product of traditional management – grazing, woodland management and quarrying – over many millennia by farmers, woodland owners and other land managers. Its chalk escarpment provides a crucial stepping stone for species moving through the landscape, often in response to climate change and other pressures.

Designated Wildlife Habitat Sites



The Chilterns has many sites designated for their wildlife value, including nationally and internationally important sites. These include:

- Three Special Areas of Conservation (SACs – sites of international importance), including the Chilterns Beechwood SAC (made up of nine separate sites), Aston Rowant SAC and Hartslock Wood SAC
- 64 Sites of Special Scientific Interest (national importance)
- 494 local sites recognised for their wildlife or geology

Plantlife identifies part of the Chilterns as an 'Important Plant Area' for internationally important plant populations.

The map doesn't show local wildlife sites (almost 500). Total area of designated sites is greater than 9,500 ha (over 11% of the AONB)

Key Facts

Grassland, Heathland and Bare Ground

- The Chilterns supports important concentrations of species rich grassland including chalk, neutral and acid grassland
- Remnant heathland is also found in the Chilterns, often on common land
- Quarries/former quarries provide bare ground, an important habitat for many species
- Chalk grassland is an internationally rare, fragile, wildlife rich habitat which has developed over centuries of grazing on nutrient-poor chalk soils
- Home to populations of chalk specialist species, including wild candytuft, pasque flower, silver-spotted skipper and glow-worm
- Grassland and heathland scrub up quickly if left unmanaged
- Livestock grazing is the best way to manage chalk grassland and should be encouraged
- Chalk scrub is often of high wildlife value – habitat mosaics, including small areas of scrub and longer grassland, as well as short turf, are important
- Juniper and box scrub habitats are notable in the Chilterns
- Many grassland and heathland sites are popular with visitors; this requires management to prevent disruption to sensitive species and habitats



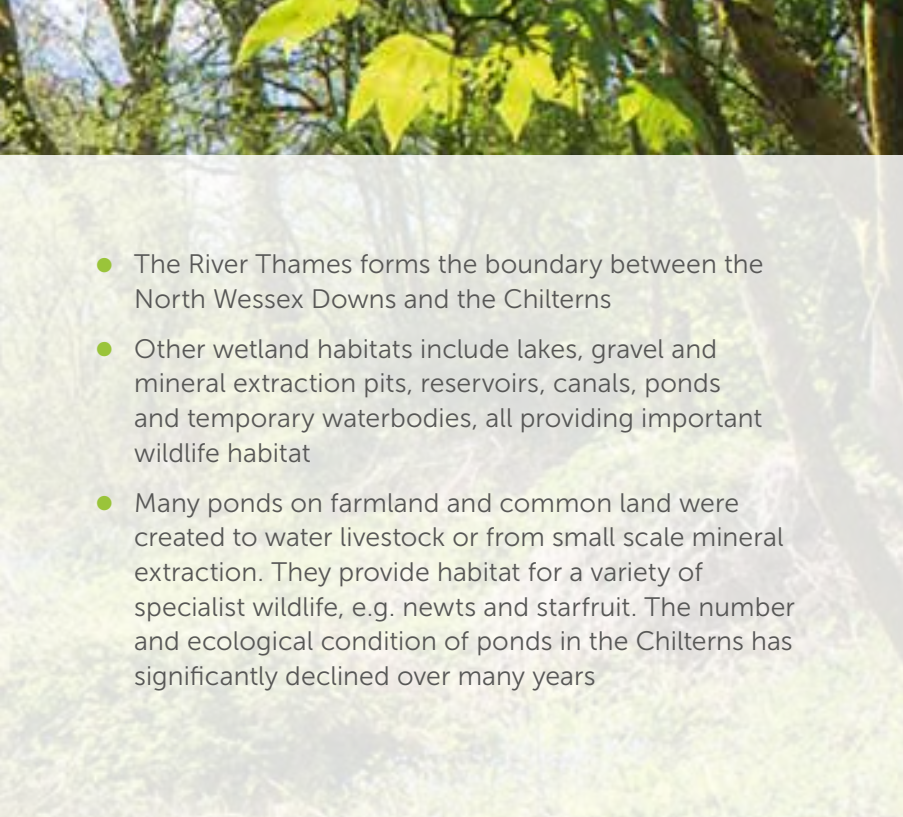


Trees and Woodland

- The Chilterns is one of the most heavily wooded areas in England, famous for its extensive beech woods and ancient woodland
- Ancient woodlands cover only 2% of England. In the Chilterns this figure is 13%. They are home to many rare and threatened species
- Priority habitats in the Chilterns include lowland beech and yew, lowland mixed deciduous woodland, wood pasture and parkland
- The Chilterns has a rich heritage of parkland, wood pasture and common land, with high concentrations of veteran trees, associated deadwood invertebrates and fungi
- The Chilterns has the largest native box woodland in the UK
- Active management of woodlands is needed to let in light and create habitat mosaics
- Plantations on ancient woodland sites need to be restored through a mix of natural regeneration and appropriate planting
- Invasive non-native pests and disease, as well as increasing deer numbers, are a serious and growing concern for our woodlands that needs management
- Management of woodlands to increase diversity species mix and age is needed to ensure resilience to climate change, pests and disease
- Traditional orchards, particularly cherry, were once important in the Chilterns and the mix of old fruit trees and grassland are valuable for wildlife

Water Bodies and Wetlands

- Rivers and wetlands are scarce but precious habitats in the Chilterns
- Chalk streams are a globally scarce habitat – nine of the circa 300 chalk streams in the world are found here
- Chalk streams are shallow, fast flowing watercourses with a gravel bed and low banks. Flows depend on groundwater levels in the underlying chalk aquifer
- They are home to some of the UK's most endangered species including water vole, otter and brown trout
- Winterbournes, the upper reaches of streams that are dry in the summer months, support unique plants and animals
- The chalk aquifer underlying the Chilterns supplies water to millions of people in the south east
- Besides the main chalk streams there are numerous chalk springs at the foot of the scarp
- Of the nine chalk streams, none are currently assessed as being of 'Good Ecological Status/Potential' according to the latest Environment Agency assessment
- Low flows are the key issue affecting the area's chalk streams
- Pollution is also a significant concern, especially from urban and sewage effluent, as well as diffuse pollution. Pollution becomes more concentrated at times of low flow
- All our chalk streams have been heavily modified due to milling, agriculture and urban development, leaving fragmented habitats, degraded natural river channels and interrupted natural processes
- The spread of non-native invasive species such as Himalayan balsam, Japanese knotweed and North American mink have had an impact on the ecology of Chilterns chalk streams



- The River Thames forms the boundary between the North Wessex Downs and the Chilterns
- Other wetland habitats include lakes, gravel and mineral extraction pits, reservoirs, canals, ponds and temporary waterbodies, all providing important wildlife habitat
- Many ponds on farmland and common land were created to water livestock or from small scale mineral extraction. They provide habitat for a variety of specialist wildlife, e.g. newts and starfruit. The number and ecological condition of ponds in the Chilterns has significantly declined over many years



Farmland Habitats

- Farmland is the main land use in the Chilterns, covering over 60% of the AONB and providing a wide range of wildlife habitats
- Farming has created a mosaic of arable and grassland habitats, stitched together by hedgerows and interspersed with woodland, commons and downland
- Species-rich ancient hedgerows and hedgerow trees provide important wildlife habitat and corridors
- Hedgerows need the right management to sustain their value for wildlife
- Farmers play an important role planting and restoring hedgerows; with the declines in livestock farming, the function of many hedges as barriers to movement of stock has gone
- Farmers also have a crucial role to play in protecting and maintaining soil health to support soil invertebrates, fungi and microbes
- Modern farming techniques and the move towards larger fields has impacted farmland wildlife; much of this change was concentrated in the early post-war period, yet declines in biodiversity continues
- The Chilterns was once a stronghold for rare arable plants and farmland birds, such as lapwing, yellowhammer and skylark; many of these species are in decline



Long Term Trends

The Chilterns saw major losses in area of characteristic habitats and landscape features over the course of the 20th century²³ including:



Recent Trends

- The UK State of Nature Report 2016 found that 56% of UK species have declined since 1970
- This trend is mirrored in the Chilterns with many wildlife species in long-term decline in both abundance and range
- Much of the best surviving wildlife habitat lies within designated sites and nature reserves. Many formerly abundant species of the wider countryside are in decline
- Species with specialist habitat requirements are hardest hit
- Over the past 10 years many woodland and farmland birds have declined or disappeared. The decline in woodland bird species reflects a long-term reduction in woodland management across the Chilterns
- Plant species – particularly specialist chalk loving plants – are also under pressure; the northern Chilterns is one of the three most richest and important chalk floras in the UK, yet ten of the 60+ rarer species are thought to be extinct. Many others are restricted to a single site

KEY ISSUES

Despite the efforts of many people and organisations over many years – not least farmers and land managers, volunteers and community groups, NGOs and statutory agencies – we are still losing wildlife habitat and species from the Chilterns. This is due to a range of factors, many of which are listed below. More effective action is needed, for example, landscape scale conservation initiatives, in order to halt and reverse these declines.

Habitat degradation takes many forms including direct loss of habitat, decline in habitat quality, fragmentation and increased isolation of habitat and increased leisure and recreational use. Species that require habitat mosaics rather than single habitats are often the hardest hit.

Changes in land management practices: A decline in traditional land management practice, such as extensive grazing crop rotation, small scale quarrying and hedge-laying has led to a decline in biodiversity.

Lack of wildlife habitat management: A lack of support and resources to manage existing wildlife sites, semi-natural habitats and important ecological networks, such as roadside verges and hedgerows.

Environmental and ecological change: Including climate change, loss of pollinators and impacts of pests, diseases and invasive non-native species (INNS).

Impacts of people and dogs: The actions of visitors to the Chilterns can damage many of the area's wildlife habitats. For example, dogs can disturb ground nesting birds and high visitor numbers can make it harder to carry out appropriate site management.

Habitat fragmentation: Housing, transport infrastructure and changes in land use, continue to leave a legacy of habitat fragmentation from severed hedgerows, culverted chalk streams and lack of buffer zones along the rivers, to isolation of chalk grassland and ancient woodland. Wildlife habitats need to be big enough and sufficiently well connected for wildlife to thrive and species need corridors to move through the landscape in response to a changing environment.

Rebuilding Nature – the ‘Lawton Principles’

Professor Lawton’s landmark report ‘Making Space for Nature’²⁴ concluded that “There is compelling evidence that England’s collection of wildlife sites is generally too small and too isolated, leading to declines in many of England’s characteristic species.” The report identified the essence of what needs to be done to enhance the resilience and coherence of England’s ecological network in four words: more, bigger, better and joined.

We need to: (i) Improve the quality of current sites by better habitat management (ii) Increase the size of current wildlife sites (iii) Enhance connections between, or join up, sites, either through physical corridors, or through ‘stepping stones’ (iv) Create new sites (v) Reduce the pressures on wildlife by improving the wider environment, including through buffering wildlife sites.



BIGGER. BETTER. CONNECTED.
Put the right habitat in the right place

Making space for nature: a review of England’s wildlife sites and ecological networks: DEFRA 2010

²⁴Including species characteristic of the Chilterns, species for which the Chilterns is important, and rare, notable and protected impact species found in the Chilterns, and keystone species.



Strategic Objectives

The Government's Biodiversity 2020 Strategy stated the ambition that, *"By 2020, we will see an overall improvement in the status of our wildlife and will have prevented further human-induced extinctions of known threatened species."*

So far, not enough has been done to achieve this, either in the Chilterns or nationally. The Government's 25 Year Environment Plan contains ambitions for nature and the aim of becoming the first generation to leave the environment in a better state than we found it. This Management Plan sets out a framework for joint action to progress these ambitions in the Chilterns.

The following objectives have been put in place to help prioritise and invest in the natural environment, and in the people and organisations that care for it, to deliver 'more, bigger, better, more joined up spaces for nature.'

- NO1** Ensure that spaces for wildlife are expanded, well connected, well managed and diverse.
- NO2** Increase the range and abundance of populations of key wildlife species²⁵.
- NO3** Minimise development impacts on the AONB and its setting; where they are unavoidable, ensure they provide net environmental gains.
- NO4** Ensure that chalk habitat management in the Chilterns is widely considered an exemplar of best practice.
- NO5** Enable people to understand and be inspired by the natural environment of the Chilterns, ensuring that policies and decisions recognise the Chilterns' value to society and in its own right.
- NO6** Secure greater protection for chalk streams as a globally rare habitat.
- NO7** Encourage people from different organisations, communities and backgrounds, to work together to 'make space for nature' in the Chilterns.

Policies

To achieve these objectives, we must work together to:

NO1 & NO4

NP1 Create large, more joined up, functional habitat networks, reconnect surviving pockets of habitat, and develop landscape-scale conservation initiatives.

Strong collaboration, leadership and resources are needed to reverse the declines in wildlife and follow the rationale set out in the Lawton Report. Funding needs to be targeted firstly at supporting management of good quality existing habitat and secondly at re-creation of habitat in target areas, such as biodiversity opportunity areas and conservation target areas, to support the delivery of the Lawton Principles.

Options for creation of more 'wilded' landscapes, linking core areas (e.g. priority habitat, designated sites, ancient woodland) with the wider countryside also need to be explored.

NP2 Promote and support landowner and farmer-led initiatives that prioritise nature and deliver wildlife conservation and enhancement at a landscape/catchment scale.

Farmers and other land managers are key to sustaining landscape-scale conservation initiatives over the long term.

NP3 Look for and promote opportunities for restoring natural processes.

To help nature recover, we need to help natural processes re-establish themselves. This could, for example, include restoration of natural chalk stream flow, natural flood management or introduction of extensive grazing across different habitats. It could also include reintroduction of key species, such as pine marten, to the Chilterns to achieve better ecological balance, and action to support populations of pollinator species.

NP4 Protect important, under-represented habitats and natural features through new designations and sensitive management.

Protect important habitats through nature conservation designations, including Local Sites and Sites of Special Scientific Interest (SSSIs). Local Sites are an important component of our ecological networks; their identification, monitoring and management is a high priority. There is a strong case for more Chilterns habitat, for example chalk streams, to be included in the national suite of SSSIs.

NP5 Control and eradicate (where possible) invasive non-native pests and diseases in the Chilterns and develop strategies to reduce their impact.

Damaging impacts of deer, grey squirrel, Glis glis (edible dormouse) and mink need to be addressed, alongside a concerted effort to manage impacts of ash die back, acute oak decline, oak processionary moth, Phytophthora, Himalayan balsam and Japanese knotweed.

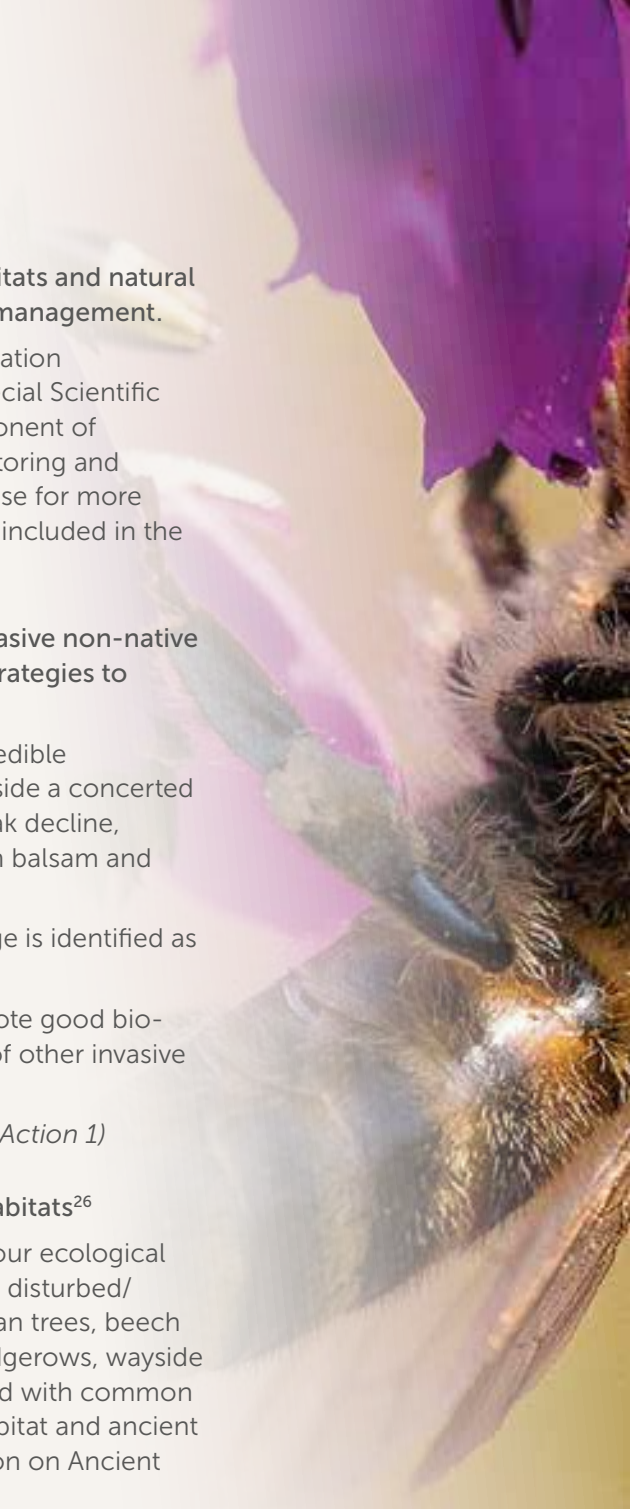
Collaborative action to reduce grey squirrel damage is identified as a priority.

Support schemes need to be put in place to promote good bio-security and prevent the spread and introduction of other invasive non-natives.

See also Land, Woodland & Water (LO4, LP18, Key Action 1)

NP6 Protect and enhance important wildlife habitats²⁶

The Chilterns' key wildlife habitats are the core of our ecological networks. They include species-rich grassland and disturbed/bare ground, ancient woodland, ancient and veteran trees, beech woodland, chalk streams, arable field margins, hedgerows, wayside verges, traditional orchards, and habitats associated with common land. The conservation of existing semi-natural habitat and ancient woodland, including restoration of PAWS (Plantation on Ancient Woodland Sites), is high priority.



NP7 Improve ecological condition, resilience and diversity of important wildlife habitats

Best practice management is required of all important wildlife habitats. We need to test and develop new ways of sustaining the diversity within our habitats that is characteristic of the Chilterns. For example, we need glades in woodland, bare chalk in chalk grassland and flourishing ground flora at the base of our hedgerows.

Regeneration, restoration and active management of the Chilterns' woodland and trees is needed to preserve the wooded landscape that the AONB is renowned for.

There are also places where less active management is required – for example, we need to leave dead wood in our woodlands to provide homes for beetles or fungi.

We need to learn from our history of land management whilst developing new and contemporary ways of allowing nature to flourish.

NP8 Maximise 'win-win' opportunities where restoration/expansion of wildlife habitats can, at the same time, provide benefits to society and respect/strengthen landscape character.

To do this we need to understand the key components of the Chilterns' natural capital and how past management has shaped the landscape. This includes understanding the benefits of good land management, such as reduced flood risk and provision of clean water. This understanding should inform decisions about investment in the natural environment. We also need a good understanding of landscape character and how past management has shaped the landscape we see today.

NP9 Ensure those who make decisions that impact Chilterns' wildlife are able to do so on the basis of robust, up-to-date and readily available ecological information.

This underlines the importance of support for local record centres, but also other sources of information such as remote sensing data.

NO2

NP10 Halt and reverse declines in rare, protected and characteristic wildlife species.

This needs to be based on solid scientific evidence and understanding of species population ecology. Effective monitoring and record keeping are crucial. Record centres need to be properly valued and supported to achieve this.

Focus should be on species at the edge of their range and initiatives developed that encourage expansion and favourable management of their habitats. 'Keystone' species – those that play a critical role in maintaining the structure and composition of an ecological community (e.g. earthworms) – should also be helped to thrive.

In England, many of our rarest and most threatened habitats and species are listed under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006 as being of principal importance for conservation.

NO3

NP11 Ensure delivery mechanisms are in place to secure net gains for biodiversity in the AONB and its setting.

Planning policies and decisions must contribute to and enhance the natural and local environment. This includes minimising the impact on and providing net gains for biodiversity. The 25 Year Environment Plan takes this further setting out ambitions for net environmental gains. To secure these objectives for the Chilterns effective mechanisms need to be developed and implemented.

²⁶Important wildlife habitats' used to indicate semi-natural wildlife habitats

NO5

NP12 Engage with more, and a greater variety of, local groups, communities, volunteers and young people to support wildlife, farming, land management and the local environment.

The demographic profile of those involved in wildlife conservation is very narrow, given the diverse communities within and close to the Chiltern. Everyone needs to feel they have a stake in the natural environment if we are to make progress. Communities can get involved in several ways, including buying local food and products, as well as wildlife monitoring and practical conservation activity.

Supporting and promoting citizen science initiatives can broaden engagement, recruit volunteers and support environmental recording. At the same time, we need to support and sustain the interest of local amateur naturalists who make a huge contribution to our knowledge of the local area. School and outdoor activity programmes can encourage younger generations to develop a long-term interest and involvement.

NP13 Help visitors to discover and enjoy wildlife in the Chilterns while not harming or disturbing it.

Part of our mission is to inspire many more people with a sense of wonder in the natural world and the confidence to venture out into the countryside to enjoy the health benefits of green and beautiful, wildlife-rich spaces.

At the same time, some of our most precious habitats are particularly sensitive to impacts of visitors and their dogs. There needs to be a carefully planned and strategic approach to managing visitors, targeting areas with the capacity and infrastructure to accommodate additional use in order to protect the more sensitive sites from damage. This means better mapping of habitat sensitivity and current hotspots to support development of a strategy. Where there is a conflict between access and nature conservation, legislation requires that the natural environment be given priority²⁷.

NO6

NP14 End environmentally unsustainable abstraction from Chilterns chalk streams to restore their ecology and improve their resilience to climate change.

Low water flows are the key issue affecting the area's chalk streams. Too much water has been abstracted from the Chilterns aquifer over recent decades. This, together with prolonged periods of low rainfall and an increasing frequency of droughts, has reduced the functioning length of chalk streams and severely degraded their ecology. Physical degradation of the rivers and their riparian corridors can further amplify the impact.

See also Land, Woodland & Water (LP14, LP21, Key Action 5), Development (DP4)

NO7

NP15 Create opportunities for farmers and other land managers, land agents, research institutes and nature conservationists to share learning on best practice wildlife conservation relevant to the Chilterns.

Opportunities for networking and learning are important in themselves and they help to develop wider thinking and a landscape scale approach.

NP16 Create partnerships within and across sectors to drive forward better networking, decision making and action for wildlife.

Significant change will come through more joined up working within the nature conservation sector and, importantly, across sectors.

NP17 Manage land to enhance the resilience of key habitats and species to the impacts of climate change.

Climatic variation and extreme weather events are already affecting our wildlife communities. We need to monitor and understand likely changes and their impacts on key species and habitats. This will help farmers and other land managers to make good decisions regarding future management. Well-connected habitat networks are crucial to allow species movement through the landscape in response to a changing climate.

KEY ACTIONS

1. Develop and secure support for a 'Chilterns Natural Environment Delivery Plan' with ambitious five-year and 25-year targets. To include:
 - a. Landowner engagement plan – including support for farmer-led initiatives and networking opportunities for land managers
 - b. Baseline mapping – including priority habitat condition and natural capital
 - c. Assessment of resources – especially volunteers, to inform a more coordinated approach
 - d. Strategies for control and/or eradication of non-native pests and diseases
 - e. Proposals for reintroductions of key species – including pine martin
 - f. A suite of projects and site-specific enhancement proposals with landowner support – including flagship biodiversity and green infrastructure initiatives for investment from developer contributions, grant funding and other sources
2. Create an 'Agenda for Chilterns Wildlife'; a set of shared priorities to drive increased engagement and coordinated action for wildlife across the Chilterns, and secure support for this agenda across sectors including health, education, research and economic development.
3. Create a visitor management initiative to assess which areas are robust for recreational pressure and which are likely to be vulnerable, and to promote recommendations for future management and promotion.
4. Secure commitment to ending unsustainable abstraction from Chilterns chalk streams/chalk aquifers.
5. Develop and deliver landscape scale conservation initiatives including the five-year Chalk Cherries and Chairs Landscape Partnership Scheme in the central Chilterns, and Chalkscapes in the North Chilterns.

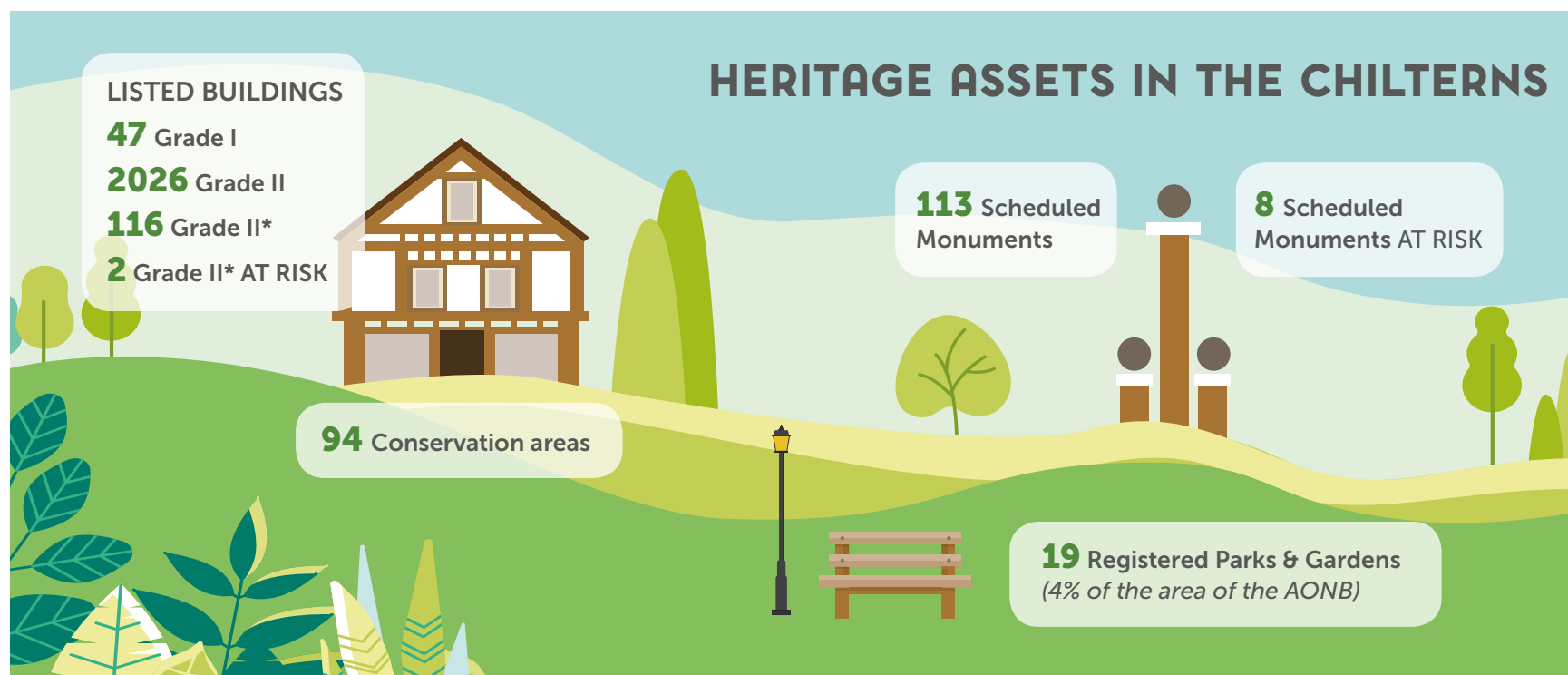
Working to protect our historic landscape



6. HISTORIC ENVIRONMENT

The Chilterns AONB has been influenced by thousands of years of human activity. Traces of each successive generation are left as a legacy; written on the landscape as archaeological sites, monuments, buildings, route ways and patterns of land use. These tell rich stories of cultural heritage and history.

Parish and private records, folk memory, and artefacts attest to the relatively recent lives and work, culture and customs, beliefs and politics of locals. These range from the bodgers with their workshops, lathes, and saw pits hidden in the Chilterns beech woods, to the country houses of notable figures of British history, whose designed gardens and estates have become nationally important sites.²⁸ The Chilterns has proved the inspiration for renowned artists, poets and novelists. Some 45% of the Chilterns landscape has preserved its character from before the beginning of the 18th century, with high potential for yielding evidence of the medieval period and earlier.²⁹ Prominent throughout the Chilterns are the historic towns and villages with buildings and churches in characteristic flint, brick, and timber materials.



²⁸The Changing Landscape of the Chilterns: Chilterns Historic Landscape Characterisation Project Final Report (2009) p. 101. ²⁹The Changing Landscape of the Chilterns: Chilterns Historic Landscape Characterisation Project Final Report (2009) p. 101.

Many sites are undesignated (recorded in local Historic Environment Records) or have yet to be found.³⁰ The earliest settlers in the region left their mark through field systems, surviving from the Bronze Age, Iron Age, Roman and early medieval periods. These are joined by displays of their wealth and power, and their ritual and funerary practices, through monuments such as the 20 known hillforts, the kilometres of linear earthworks known as Grim's Ditch, and hundreds of burial barrows.

The natural and historic landscapes of the Chilterns have provided home and inspiration for some of Britain's greatest artists and writers, including John Milton, Wilfred Owen, John and Paul Nash, Roald Dahl and Enid Blyton. At the same time the nation's politics has regularly been framed in the Chilterns, home to Prime Ministers including Edmund Burke and Benjamin Disraeli, and Chequers the country house of the PM since 1921.³¹

In summary, the region's historic environment and cultural heritage underpin the essential nature of the Chilterns.

Key Issues

The Chilterns AONB faces significant threats to its historic environment in the next five years. Archaeology is a finite asset, and many sites in the Chilterns are highly sensitive, surviving only as subtle earthworks or fragile deposits of finds. In the next five years the Chilterns AONB faces unprecedented demands for development in housing and infrastructure, directly impacting the archaeology beneath them and the landscapes surrounding them. Numerous undesignated or unknown sites are at even greater risk, lacking statutory protections.

Development pressures: Developments can lead to the destruction of sites of national importance and the alteration of the character, cultural heritage and spirit of the Chilterns AONB. For example, the construction of HS2 will erase a section of Grim's Ditch, a Scheduled Monument. Unsympathetic design choices, inappropriate locations for development, unsuitable materials, and lack of knowledge and time in the planning process are all risks to the historic environment of the Chilterns.

Changes in land management: The decline of traditional agriculture and industry has led to changes in land and woodland management, and the funding given to farmers for protecting heritage assets is uncertain.

Sites and landscapes unprotected: While designated assets, such as Listed Buildings, Registered Parks and Gardens, and Scheduled Monuments are protected, their wider setting that is often integral to the character is not. Furthermore, the majority of known archaeological sites are 'undesignated heritage assets', lacking statutory protection and are at increased risk.

The condition of the Chilterns' designated assets, that is the Listed Buildings, Registered Parks and Gardens, and Scheduled Monuments, has remained largely stable in

the recent past. This is due to statutory protections and proactive management from owners. Only two Listed Buildings are designated 'At Risk' by Historic England, along with eight Scheduled Monuments. However, the approach to designation takes a site specific, rather than landscape scale approach. This means the wider setting of monuments, often integral to their character, and perhaps beyond the bounds of the AONB, is not protected.

Lack of understanding and engagement: The heritage of the Chilterns is less well recognised and understood than other protected landscapes, making protection and presentation of sites and heritage more difficult. Limited resources are also a problem for many agencies involved in tourism and heritage promotion.

Historic assets are an irreplaceable resource. They deliver wide social, economic, cultural and environmental benefits. Change is inevitable and so in the face of mounting threats, careful management is needed. Through holistic, landscape scale approaches to planning, land use, and development, and through collaboration and coordination between partners, we can preserve the rich legacy of the past for the benefit of future generations.

³⁰The Changing Landscape of the Chilterns: Chilterns Historic Landscape Characterisation Project Final Report (2009) pp. 34, 99, Fig. 69; Historic England Statutory Figures for AONBs (2017). ³¹Cf. www.chilternsaonb.org/Products/34/20/Famous-People-of-the-Chilterns-booklet



GRADE II LISTED
COTTAGE IN TURVILLE,
BUCKINGHAMSHIRE



EROSION ON IVINGHOE
BEACON HILLFORT,
BUCKINGHAMSHIRE

Strategic Objectives

- HO1** Better protect the Chilterns historic environment, both formally designated and unprotected heritage assets.
- HO2** Seek new discoveries of unknown heritage assets and improve understanding of those already identified, to reveal the significance of the historic environment and cultural heritage of the Chilterns.
- HO3** Increase the knowledge and enjoyment of Chilterns heritage and culture by local residents, visitors and the wider public, and bring a love of heritage to wider parts of society.

Beacons of the Past

Beacons of the Past: Hillforts in the Chilterns Landscape is an exciting three and a half year project which will engage and inspire communities to discover, conserve, and enjoy the Chilterns' Iron Age hillforts and their prehistoric chalk landscapes. The project will carry out the largest archaeological LiDAR survey ever undertaken in the UK.

Supported and part-funded by the National Lottery Heritage Fund, the project will provide a real focus for community and public involvement through public involvement through Citizen Science survey, practical excavation and research, as well as a programme of events and educational activities.



Policies

To achieve these objectives, we must work together to:

HO1

HP1 Encourage owners of designated heritage assets to create Conservation Management Plans and manage/restore assets appropriately.

The ongoing protection of heritage assets is largely in the hands of landowners, farmers, and other land managers. Partnerships will develop mutual understanding and consultation between landowners, Conservation Officers and Historic England.

HP2 Encourage and facilitate work to improve the condition of assets in order to remove them from 'At Risk' status and explore the designation of new assets through work with local Historic Environment Records and Historic England.

The work of projects such as Beacons of the Past³² and Chalk, Cherries & Chairs³³ will present opportunities for coordinating improvement of known assets. The Beacons of the Past LiDAR survey of the Chilterns will discover hundreds if not thousands of currently undesignated heritage assets, whose significance and protection will be discussed with landowners, local Historic Environment Records, and Historic England.

HP3 Encourage the use of the Chilterns Building Design Guide and the Chilterns Historic Landscape Characterisation Project by developers and planners. Encourage sensitive restoration prioritising local and in-character materials.

Active promotion of the Chilterns Building Design Guide and of the Chilterns HLC dataset and documentation through the CCB website, will assist individuals, communities, and planners with conserving the special character of Chilterns buildings and landscape.

HP4 Work towards the coordination of groups with an interest in/responsibility for the historic environment of the Chilterns.

There are multiple community groups across the Chilterns with interests in the historic environment, including the Chiltern Society and local history and archaeology societies, which are of great value to the AONB for their work in protecting and learning more about its history. CCB can provide coordination, skills training, data and expertise to groups in order to assist in their activities.

HP5 Help communities to create robust Neighbourhood Plans which take heritage assets into account.

Expertise, information, and advice from CCB, will assist in signposting Neighbourhood Plan authors towards resources for creating robust plans, with consideration for the historic environment assets and their settings.

HO2

HP6 Improve knowledge of heritage assets through facilitating research and investigation.

The Beacons of the Past project and Chalk, Cherries & Chairs project, will greatly enhance knowledge of heritage assets throughout the Chilterns, with hundreds if not thousands of new sites expected to be discovered. Partners and the public will be involved in these discoveries through Citizen Science and Open Data approaches. County Historic Environment Records will be closely involved in the investigation of these sites.

HP7 Identify and record the cultural history of Chilterns inhabitants and settlements to preserve memory for future generations.

Memory and understanding of 'how things used to be' can quickly disappear with each generation. Modern recording methods, including utilising GIS technology alongside video, audio, photographic and written sources allow the capture of precious cultural history.

HP8 Improve the sharing of heritage information of the Chilterns, signposting individuals to appropriate sources such as local Historic Environment Records and History Centres.

Communication to all audiences of the results of research into the historic environment is essential, from academic communities to the general public. The Beacons of the Past project will start initiatives

KEY ACTIONS

covering this whole spectrum, from the organisation of academic conferences based on the findings of the LiDAR survey, through to the provision of Key Stage 1 learning materials, and historic interpretation panels at popular visitor sites such as Ivinghoe Beacon, and archaeology-themed guided walks. A revamped 'History' section of the Chilterns AONB website will provide visitors with accessible information, as well as guidance on where to learn more and what other resources are available to them.

HP9 Encourage initiatives to highlight the importance of the Chilterns to political history, artistic history and literary history, as well as the industrial history of the area.

Partnership projects will provide opportunities for greater understanding of the Chilterns' rich cultural and industrial heritage. Improved web resources will make it easier for visitors to find an engaging day out in the Chilterns focused on history, art or literature, while our understanding of the industrial history of the AONB will be greatly enhanced through the study of its traditional crafts.

HO3

HP10 Improve public understanding of the historic environment of the Chilterns through projects, events, information, and campaigns.

A far greater focus than ever before is being placed on the history and archaeology of the Chilterns through funding won by the CCB for large projects. These present fantastic opportunities to build momentum across the AONB for engaging with its historic environment.

HP11 Create e-learning resources concerning history and archaeology for primary and secondary school curricula.

Following a programme of engagement with school history and geography teachers to hear their opinions on the types of resources they would like, lesson plans and activities will be made available online and artefact handling collections will be offered on loan to schools.

1. Implement the Beacons of the Past project by working closely with other bodies, to learn more about Chilterns archaeology through LiDAR survey, Increase data sharing and Communicate the narrative of Chilterns prehistory to the public. In addition more heritage walks will be developed, work to remove Scheduled sites from the At Risk register will be undertaken and local groups will be empowered to conduct further research and more effectively protect heritage assets.
2. Implement the Chalk Cherries and Chairs Landscape Partnership Scheme, engaging the public in cultural heritage projects (e.g. Woodlanders, Cherry Orchards, Routes to the Past, Grim's Ditch) and traditional skills training, helping with neighbourhood plans, and supporting landowners managing heritage assets.
3. Make the Chilterns Historic Landscape Characterisation project data accessible online for communities, local history societies, schools and decision makers.
4. Offer new history and cultural trails at Walking Festivals and integrate information on public transport links with heritage routes.
5. Make the Chilterns Building Design Guide available to Parish Councils.



*Human influence
has shaped
the Chiltern's
landscape*

7. LAND, WOODLAND AND WATER

Through the centuries, human influence has shaped the Chiltern's landscape. Stock and arable farming, firewood and timber production have created the mosaic of fields and woodlands, interlinked with hedgerows dotted with hedgerow trees. Even the courses of many of the area's characteristic chalk streams have been modified by human intervention. Such changes were for a variety of purposes, such as milling, water cress growing, agriculture, urban development and landscaping. Overlaying all this is a network of ancient rights of way. These may have originated as paths for farm workers or extraction tracks for timber. Some developed as paths for drovers or trade routes for commodities on their way to London. Often, years of use have left incised tracks and sunken lanes cutting across the chalk escarpment and winding down the steep valley sides.



Aston Rowant Nature Reserve

Incised track traversing the escarpment at Aston Rowant Nature Reserve. This has been created by years of erosion caused by human activity.

Key Issues

Farming: Stock farming (sheep, beef, dairy) continues to decline. It is uneconomic to graze chalk grassland yet, without grazing, our species rich chalk grassland is lost to scrub. More intensive stock management, sometimes associated with equine, alpaca and deer enterprises, can lead to the introduction of numerous paddocks and other infrastructure that degrades traditional field patterns. There is now no need for hedgerows to keep stock in as farmers rely on fencing. An annual flail keeps surviving hedges in check but each year their quality deteriorates. With Arable farming, current economics and farming systems are leading to fewer people farming larger areas. Less time and resources are available to manage the 'non-farmed' areas.

Commons: In the past, many commons would have been grazed and wooded areas managed through the exercise of common rights. Most of these rights are no longer exercised, though over half of the wooded areas have Management Plans.

Orchards: Once widespread, during Victorian times, extensive cherry orchards attracted visitors to the Chilterns during blossom time and cherry pickers would travel from London to help with the harvest. Today, many of these orchards are gone though there is a resurgence in interest of traditional fruit varieties (apple, cherry and pear) with community orchards and a small number of commercial enterprises.

Woodland: The demise of the Chilterns furniture industry led to reduced timber production and now, due to both the rapid increases in deer and grey squirrel numbers, and the constant spread of new diseases, very few quality timber trees reach maturity. Further, there is a trend to split some large estate woodlands into small wood lots and sell them. The result can be inconsistent management, pressure for fencing, access roads and buildings. Fragmented management means that the control of pests and diseases becomes even more difficult. However, the recent trend for wood burning stoves and wood-fuel heating systems has recharged the management of small woodlands.

Chalk Streams: The porous chalk rock of the Chilterns Hills forms part of the most significant aquifer in the south east of England. Water levels within the aquifer supplying the internationally important Chiltern chalk streams, normally fluctuate with the changing seasons. Groundwater recharge occurs with the steady seepage of rainwater through farm and woodlands in the winter months. However, utility companies extract drinking water for millions of people – residents of the Chilterns and far beyond. The Chilterns has one of the highest levels of water use per head of population in the UK.

In addition, the chalk streams are particularly vulnerable to impacts of new development. Not only do flows suffer, when abstraction is increased to supply the increased demand for drinking water, but also there is an increased flood risk. Rainwater runs off quickly from paved surfaces, collects pollutants from the drainage system and, with increasing numbers of extreme weather events, can lead to flash flooding and poor water quality.

Unpredictable and extreme weather conditions, a result of climate change, also reduce the effectiveness of groundwater recharge from farm and woodland. Heavy rain fall runs quickly off valley sides and can carry silt from arable fields into the chalk streams if field margins or other measures aren't present to arrest the flow.

Poor recharge and unsustainable abstraction combine to impact rivers and, in particular, their headwaters (winterbournes). Effectively, this means that the length of chalk stream habitat within the Chilterns is declining. Currently, the underlying groundwater and all nine chalk streams that flow through the AONB are failing to attain the Water Framework Directive (WFD) objective of Good Ecological Status (GES) or Potential (GES/P). This failure is primarily due to over-abstraction of groundwater and low flows in chalk streams.

Strategic Objectives

- LO1** Protect and, where degraded, improve the Chilterns' natural capital resources, including soils, water, clean air, plant and animal life.
- LO2** Ensure that the Chilterns remain a functional, working landscape with viable, sustainable and diverse farming, forestry and rural economy sectors.
- LO3** Safeguard the Chilterns landscape by maintaining and enhancing all landscape features (such as hedges and trees), important wildlife habitats and cultural heritage at all times.
- LO4** Increase resilience to and effective management of pests, diseases, non-native invasive species and climate change.
- LO5** Achieve Water Framework Directive (WFD) objectives for the Chilterns water environment – rivers, valleys, wetlands and other riparian habitats.
- LO6** Ensure that those who work in the landscape, local and national policy makers, and the public, understand the link between environmentally sustainable farming, forestry, rural economy sectors and a healthy Chilterns AONB.

Farming, forestry, utility companies all depend on the natural capital resources provided by the Chilterns. We all have a duty to protect and, where degraded, improve these resources – our soils (prone to erosion), our chalk aquifer and chalk streams (vulnerable to over-abstraction and diffuse pollution), our air (that benefits from ammonia and carbon uptake by trees and grassland) and the diverse range of plant and animal life these resources support.

Many farmers and woodland owners do their best to protect the land they work on and look after the wildlife it supports. Many organisations and an increasing army of members of the public, volunteer to protect reserves, habitats and the countryside they enjoy.

After leaving the European Union and, therefore, the Common Agricultural Policy (CAP), an 'agricultural transition' period in England will help farmers prepare for new trading relationships and a new environmental land management system. We hope this Management Plan will influence government thinking and the allocation of funds that, in future, will assist land managers and foresters protect and enhance the Chilterns landscape.

Policies

To achieve these objectives, we must work together to:

LO1

LP1 Make agreed best practice advice (farming, forestry and other land management) accessible to all.

Best practice will ensure healthy soils, well managed chalk streams, clean water and unpolluted air, vital for farming, forestry, wildlife, local communities and visitors. It can also help existing landowners and new entrants to the farming and forestry sectors appreciate how they can look after the landscape features under their control including hedgerows, hedgerow and in-field trees, and pollard willows alongside chalk streams.

LP2 Publicise and promote appropriate land-based skill training and advances in new technology across the AONB.

Both traditional rural skills and modern technology have their place in securing a healthy Chilterns landscape; from hedge laying to GPS guided farming operations that avoid compaction, damage to soils and over use of fertilizers and pesticides.

LP3 Promote the production and processing of local produce, including venison, traditional orchard fruit juice and wood-fuel.

Local produce can reinforce a sense of place for visitors and residents alike. However, successful marketing can also benefit the environment. For example, venison sales can help support deer management, fruit juicing can encourage interest in and viability of traditional and community orchards, wood fuel harvesting can help re-structure woodland affected by Ash dieback.



Grazing at Blows Down

In 2016, the Wildlife Trust for Bedfordshire, Cambridgeshire and Northamptonshire secured a small grant to help improve cattle handling facilities at Blow's Down, south east of Dunstable. Continued grazing will maintain diversity over 62ha of chalk grassland SSSI so that many species including common spotted, pyramidal and bee orchid, field and small scabious, greater and black knapweed, horseshoe and kidney vetch, bird's-foot trefoil, sainfoin, and small blue, chalkhill blue, dingy skipper and brown argus butterflies, all continue to flourish.

LO2

LP4 Ensure landowners and land managers continue or re-introduce favourable grazing management on all areas of Chilterns chalk grassland.

Grazing animals are needed to maintain the important mosaics of grassland and scrub, particularly found on the chalk escarpment and steep valley sides. Unfortunately, for many farmers, this is currently uneconomic. Support (both financial and non-financial) and collaboration between farmers and other groups managing land, should be encouraged.

LP5 Ensure that more landowners sensitively manage hedgerows.

There are over 4,000km of hedgerow in the Chilterns. Between 2006 and 2008, 330 hedges were surveyed and only 38% were in good condition. Consequently, 62% (approximately 2,500km or just over 1,500 miles) of our Chilterns hedgerows need attention. Reducing nutrient enrichment and buffering from cultivation would allow hedges to become wider and

taller. Further, an average Chilterns hedge may need laying or coppicing every 40 years. This means that across the Chilterns, 100km (62 miles) of hedge needs rejuvenating every year.

Maintaining the hedge network will protect wildlife corridors, the linking fabric of our countryside and will preserve ancient field patterns that are still discernible today (particularly when rejuvenating old hedgerows).

Consideration should be given to remove fencing, particularly barbed wire, where it is no longer required for stock control. Concerns have been raised over injuries to wildlife, particularly deer, and to walkers on footpaths.

LP6 Encourage landowners and local communities to plant over 500 new hedgerow trees across the Chilterns per year.

Some 44,000 standard trees grow in Chilterns hedges but most of these are over mature. Many will succumb to old age or diseases, such as Ash dieback or Sudden Oak Decline, in the coming years. Even without the rapid spread of pests and diseases, based on an average mature age of 100 years (looking at a range of trees from the relatively short-lived cherry to longer lived oak), we will need to plant 440 new trees per year to maintain hedgerow tree numbers. Replanting 500 hedgerow trees a year is a minimum; to keep up with disease pressure, we should be aiming for nearer 1,000. Detailed proposals will need to be developed by those living and working within the AONB.

LP7 Link and buffer valued habitats – including grasslands, woodlands, rivers and streams – by a network of field margins (both grass and annually cultivated unsown arable margins as appropriate), new tree and woodland planting and low intensity grassland areas.

Farmland, woodland, orchards, commons, streams, golf courses, public open space, even road verges can all provide important links to connect wildlife habitats.

LP8 Ensure there is no net loss of woodland and no loss of irreplaceable ancient woodland, ancient trees and veteran trees within the AONB.

The Chilterns is renowned for its woodland, which covers 23.74% of the AONB. Much of this contains important wildlife and archaeology. 56% is classed as ancient woodland, which has been in constant woodland management for over 400 years. It is important that no woodland is lost to building works or infrastructure. In line with government policy, we should seek to increase the woodland area, but resources will be needed if the total area is to increase.

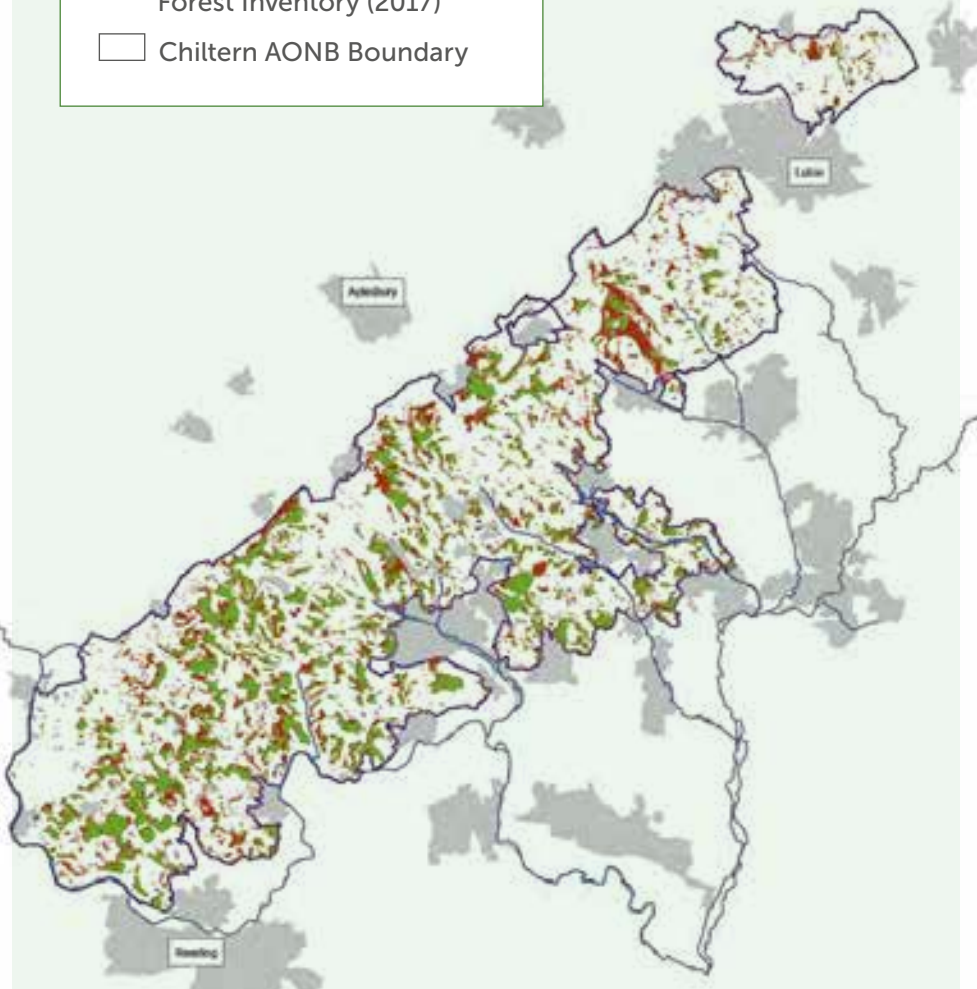
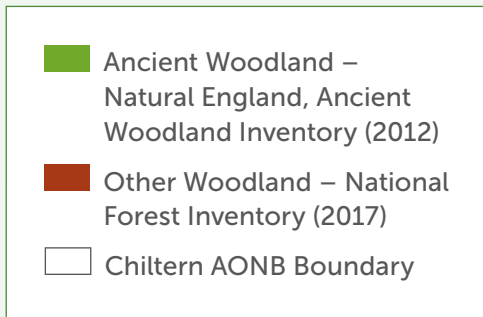
LP9 Manage woodlands to achieve a greater diversity of tree species and varied age structure to ensure economic sustainability, enhance biodiversity and make them more resilient to disease and climate change.

It is important that statutory agencies and advisers work together with woodland owners and managers. They can provide advice, training and support identifying the most appropriate tree species and on-going woodland management to achieve this policy. Species selection tools, such as Forest Research's Ecological Site Classification, can help plan site appropriate planting which will help connect wildlife habitats and replace trees lost to disease.



MAINTAINING THE HEDGE NETWORK WILL PROTECT WILDLIFE CORRIDORS AND PRESERVE ANCIENT FIELD PATTERNS

Woodland Cover



LP10 Restore Planted Ancient Woodlands (PAWS) returning them to predominantly broadleaf species and implement sensitive long-term management.

Ongoing support and advice need to be maintained and management plans for these important sites are recommended. Restoration, particularly of non-native conifer plantations, will offer significant wildlife, landscape and cultural heritage benefits.

LP11 Manage glades, other open areas and woodland edges to provide a varied habitat for woodland birds, butterflies and plants.

Partnerships between woodland owners, statutory agencies, local wildlife and volunteer groups will help achieve this policy.

LP12 Maintain and enhance traditional Chilterns orchards and encourage their use.

Orchards were once scattered across the Chilterns, valuable for their fruit crops and providing useful grazing between the trees. Many of the remnant orchards contain veteran fruit trees some of which may be 'forgotten' varieties once grown in specific localities within the Chilterns.

LP13 Protect and sensitively manage historic and cultural features.

These features include ancient parish boundary hedges and field patterns, medieval Strip Lynchets, woodland boundary banks, saw pits and traditional orchards.

LP14 Restore chalk stream flows through reduction of abstraction to environmentally sustainable levels.

The ongoing work of the Environment Agency's 'Restoring Sustainable Abstraction' programme, together with an abstraction licencing scheme that provides appropriate protection of the water environment, will be essential for the long-term health of the area's chalk streams.

See also Nature (NP4, Key Action 4), Development (DP4)



RIVER WYE, WYDE DENE RESTORATION

LP15 Support a catchment-based approach to the enhancement and sustainable management of the Chilterns water environment.

This will include natural flood management (through farming, woodland planting and management practises) and help reconnect rivers with their flood plains.

LP16 Enhance and restore the natural form, function and connectivity of chalk streams and associated habitats.

Encourage and support the development and delivery of projects where statutory agencies, water companies, landowners and other stakeholders work together to recreate more natural, wildlife rich chalk streams.

LP17 Encourage management that conserves and enhances the characteristic river valley landscape.

Smaller and irregular field patterns, wet meadows, woodland carr and pollard willows often characterise river valleys within the AONB.

LO3

LP18 Raise awareness of pest, diseases and non-native invasive species along with the need for improved biosecurity.

Up to date training and advice on the best methods and continued action to reduce, and where possible eliminate, the threats posed by pests, diseases

and invasive non-native species is vital. Care must be taken to source pest and disease-free trees for planting, possibly from seed grown on in UK nurseries. *See also Nature (NP7)*

LP19 Control and manage native pests and, where possible, seek to eradicate non-native invasive species, coordinated at a landscape scale.

Species include both native and introduced deer, grey squirrel, Glis glis (Edible Dormouse), American mink, Himalayan balsam, Japanese knotweed, Signal crayfish and Demon shrimp (an example of an emerging threat that could devastate all our chalk streams if action is not taken).

Statutory agencies will need to support landowner collaboration and partnership groups (similar to the 'Farmer Cluster' model) if this policy is to succeed. *See also Nature (NP7)*

LO5

LP20 Make relevant, informative and interesting information about farming, forestry and the rural economy readily available to all residents and visitors to the AONB.

The Chilterns is a working environment. It is important for visitors and residents to understand the processes that shape the environment they enjoy and the wider environmental benefits that are provided. These benefits include carbon capture and flood water management provided by both grassland and woods.

It is also important for the farming and forestry sectors to appreciate both the challenges and opportunities provided by working within a much loved and visited nationally protected landscape.

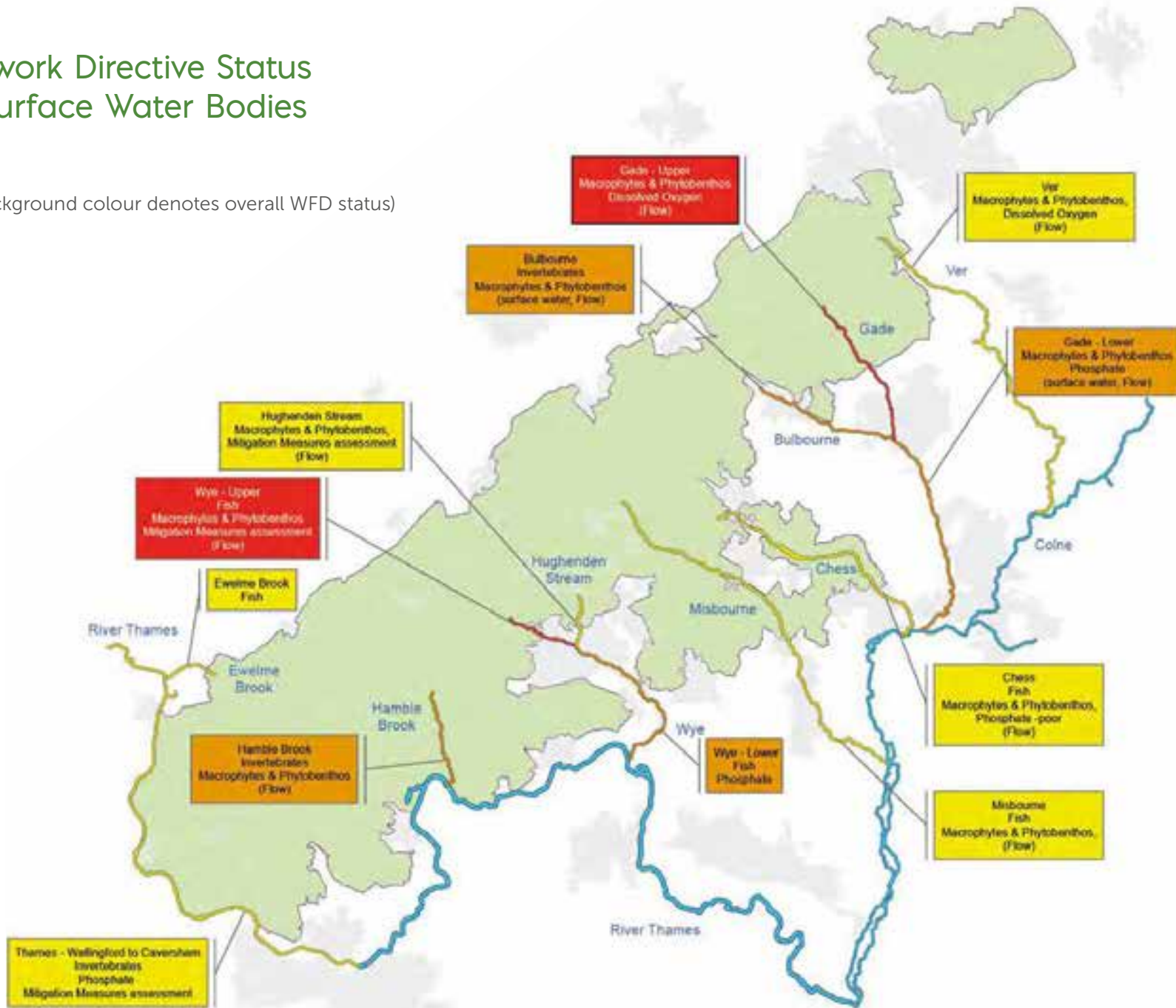
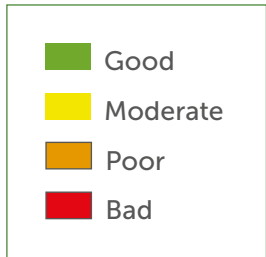
LP21 Promote public awareness and understanding of the link between water demand, abstraction and chalk stream flows and support measures to reduce demand and increase water use efficiency.

Very few people are likely to understand how their use of water might affect a Chilterns chalk stream. Utility companies need to continue work to reduce leakage in the public water supply system, but members of the public can also do a lot to reduce wastage. *See also Nature (NP4, Key action 4), Development (DP4)*

Water Framework Directive Status for Chiltern Surface Water Bodies

Water course

Reasons for failure (background colour denotes overall WFD status)



KEY ACTIONS

1. Support existing and develop new collaborative projects. For example, both the Chiltern Woodlands Project and Chilterns Chalk Streams Project already provide advice across the AONB and, during the life of this Management Plan, the Chalk, Cherries and Chairs Landscape Partnership will deliver many partnership projects in the central Chilterns area. See also Nature (NP7).
2. Secure existing and seek new funding from government agencies, local government and from other sources such as lottery fund distributors and charitable trusts.
3. Work with government and local stakeholders to design new environmental land management measures that offer pragmatic solutions to protect and enhance the natural capital, landscape and wildlife of the Chilterns.
4. Develop and deliver schemes that achieve Water Framework Directive (WFD) objectives for the water environment. See also Nature (NP4, Key action 4), Development (DP4)
5. Work collaboratively with local advisers, land agencies, representative organisations to encourage landowner, farmer and forester uptake of existing and future environmental land management measures.
6. Encourage even greater volunteer activity to strengthen the many existing groups and the valuable work they do and support new initiatives.
7. Work with stakeholders and seek funding to establish a freely accessible website (E-hub) to promote good practice (including, management advice for chalk streams, woodland, sustainable farming, biosecurity measures),³⁴ publicise training and technical innovation to local businesses; provide information to the public and promote the Chilterns AONB.

³⁴GB Invasive Non-Native Species Strategy www.nonnativespecies.org/index.fm?sectionid=55 Check Clean Dry campaign www.nonnativespecies.org/checkcleandry Forestry Commissions' 'Keep It Clean' campaign www.forestry.gov.uk/forestry/beeh-a6tek3



*“I know a land where the wild flowers
grow near, near at hand if by train you
go, Metroland, Metroland”.*

George R. Sims (1914)

8. ENJOYMENT AND UNDERSTANDING

The Chilterns has long been a place for leisure and recreation. Since the time of 'Metroland' (when the Metropolitan Railway arrived in the early 20th Century), good public transport has allowed Londoners to take the train out of the city and into the countryside. This ease of access to the opportunities the Chilterns offers makes it a valuable recreational resource.

It is a place for physical activity and an escape from busy and pressured lives. It is a landscape ideal for walking, cycling, horse-riding and an array of outdoor activities. There is an extensive rights of way network, two National Trails and dozens of promoted routes. The Chilterns provides an accessible natural health service, with health walks and green gym activities on offer. Organised events and endurance challenges have become increasingly popular over the last few years and new initiatives have developed such as Park Runs. There has been a notable increase in road cycling over the last few years, though walking is still by far the most popular activity.



The Barn at Turville

The Barn Café at Turville Heath is a popular oasis in the Chilterns for walkers, cyclists and riders, and serves as an outlet for the produce of Turville Heath Farm. Robin Harman is the fifth generation to have farmed here. In order to diversify the business and to see his meat reach the plate, Robin started up the Barn Café in 2015.

The Barn, also known as 'the no-car café' can only be reached along paths and has become a valued amenity for visitors.

Key Issues

Today, people are working longer hours, spending less time outdoors and leading lives that are more sedentary. The need for tranquil outdoors space is greater than ever. The Chilterns has capacity to accommodate greater use to help fill this need.

Attracting greater visitor numbers: The Chilterns already attracts a large numbers of local leisure users and this is increasing with new housing growth, however it has capacity for greater use. It can benefit a much greater proportion of the 1.6 million people who live within 8km of the Chilterns, in particular the least active.

Protecting sensitive sites: At present visitor numbers are unevenly spread with pressure concentrated on the most sensitive chalk downland. The challenge is to manage visits and countryside services to protect the most popular and vulnerable countryside sites and habitats. The development of a Chilterns-wide visitor management initiative will help with this ambitious vision, which will need to be adequately resourced and require new sources of funding.

Engaging the surrounding community: Establishing a multi-partner network extending beyond the AONB to surrounding urban communities, greenspaces and new growth areas is needed. Public engagement will be an important part of the vision, attracting greater support for the AONB and more volunteers and stewards to help care for it in the future.

Strategic Objectives

- EO1** Secure national recognition and greater resources for the wealth of accessible recreational opportunities the Chilterns countryside offers to residents and visitors.
- EO2** Ensure more high-quality opportunities for outdoor recreation, life-long learning and volunteering for all.
- EO3** Ensure more people can enjoy healthier and happier lives by enjoying the Chilterns.
- EO4** Make more people aware of what makes the Chilterns special and encourage them to help care for it and contribute to its protection. Inspire young people to build a lasting interest in the Chilterns.
- EO5** Encourage greater use of the Chilterns countryside by those from surrounding urban communities who currently have little connection with the AONB.



Policies

To achieve these objectives, we must work together to:

EO1

EP1 Secure greater support and funding for a well-maintained, high quality and better-connected rights of way network for walking, cycling and riding.

The recreational opportunities in the Chilterns rely on a high-quality rights of way network; it is one of the main ways to explore the AONB. Local Authorities have faced funding and staff cuts over the last few years, making it much more challenging to maintain standards and develop new opportunities. New funding opportunities should be sought, for example, planning gain could be secured through new developments. A new Environmental Land Management scheme could reward farmers and landowners to improve access, improving rights of way and creating new and better access to Open Access land.

EP2 Encourage greater use of the National Trails and regional promoted routes and maximise their contribution to the local economy.

The Chilterns has some iconic long-distance promoted routes. This includes two National Trails (the Ridgeway and the Thames Path) and regional routes such as the Chiltern Way and Chilterns Cycleway. Link routes to settlements should be developed and promoted.

EO2

EP3 Support initiatives to improve the accessibility of rights of way and countryside sites.

The Chilterns has benefited from widespread stile-removals, new 'access for all' trails and other initiatives to improve physical accessibility which makes it one of the leading accessible landscapes. Accessibility should be further improved to provide more and better opportunities for everyone to enjoy the

countryside. Priorities include improved access for those with limited mobility, new or improved access links between the AONB and urban areas, more multi-user routes, better bridleway connectivity and provision of facilities on appropriate sites (e.g. waymarked trails, information boards, cycle and car parking).

EP4 Expand opportunities for volunteering and lifelong learning and ensure it is better coordinated across the Chilterns.

Volunteers are more important than ever to countryside organisations and they are a critical resource to help care for the Chilterns. Volunteering can bring multiple health benefits; it can increase people's skills and confidence, and it can decrease health inequalities and isolation.

EP5 Ensure all young people in the Chilterns and surrounding towns have opportunities to experience and learn about the Chilterns informally and through formal education.

Many young people from urban areas have never experienced the Chilterns countryside even though it is on their doorstep. There is potential to nurture greater exploration and understanding at an early stage which will build a lasting interest. This can be done through events at countryside sites, Forest Schools, outreach to schools, getting young people involved in conservation projects or outdoor activities.

EO3

EP6 Broaden public engagement activity to attract new audiences and increase understanding and enjoyment of the AONB, targeting urban communities.

Many residents from towns adjoining the Chilterns do not visit the special landscape on their doorstep. Awareness of the AONB as a protected landscape is low, especially outside the AONB. Events can attract new and diverse audiences and stimulate an interest in the Chilterns.

EP7 Encourage better provision and take-up of car-free visitor experiences to access and explore the Chilterns.

Opportunities should be sought to reduce car use by visitors and residents by offering good alternatives and promoting their use. This should include:

- Safe, attractive and accessible infrastructure for walking and cycling in and around the Chilterns
- Promoting integrated public transport and Active Travel Plans to and across the AONB
- Lobbying for more and safer cycling routes
- Encouraging additional bike hire and cycle parking

EO4

EP8 Promote greater understanding of the Chilterns landscape and respect for other users, through communication and education.

People need to be aware of the potential effects their activities can have on both sensitive habitats and on other recreational users. Although some anti-social behaviour will always occur, education can go a long way to minimising the problems. It can also stimulate an interest in the landscape around them and encourage people to take practical steps to help care for the Chilterns, from reducing water use to following the Countryside Code.



EP9 Raise the profile and visibility of the Chilterns through high quality information, interpretation and appropriate AONB gateway signage.

Awareness of the Chilterns as a protected landscape is low, even within the AONB. People are often unaware they are in the AONB as there is little on the ground to welcome you and provide a sense of place. Raising the profile of the Chilterns is crucial to attracting support for the area and ensuring its future. There are many ways this can be achieved, for example through information boards, interpretation, AONB gateway signs/artworks, signage, leaflets and digital communications.

EO5

EP10 Increase the sustainable use of the Chilterns for recreation and physical activity.

The number of people living in or close to the Chilterns is increasing. However, there are still large numbers of people who do not make use of the Chilterns countryside. There is potential for more people to benefit from countryside recreation within the AONB, but there needs to be a visitor management initiative to ensure visitor use is sustainable.

EP11 Develop and secure support for a visitor management strategy for the Chilterns.

Increased recreational use of the Chilterns countryside must be managed in order to protect vulnerable sites. It requires a visitor management strategy which links in with the surrounding urban and growth areas. A key aim of the strategy will be to address the uneven spread of visitor pressure in the Chilterns. The first step will be to secure commitment and resource from partners to gather and commission data and research that will contribute to the development of the strategy.

EP12 Ensure the Chilterns benefits from new and improved access and green space provision linked to new built development.

There are a lot of major new housing and infrastructure developments on the edge of the Chilterns that will affect countryside access and the rights of way network. It is essential to maintain and enhance the connectivity and character of the rights of way network.

KEY ACTIONS

1. Seek funding to develop and deliver a new large-scale Chilterns public engagement programme, with a focus on urban audiences.
2. Develop a visitor management initiative to provide new and improved access while protecting the most vulnerable sites. To include:
 - An assessment of carrying capacity, identifying which areas are potentially robust to recreational pressure and which are likely to be vulnerable
 - Identify priority sites for new greenspace and new access links, to create recreational space close to where people live.
3. Enhanced walking and cycling routes from town centres to the countryside to encourage more non-car-based visiting to the Chilterns.
4. Expand and develop the Chilterns Walking Festival and make it sustainable once Leader funding has stopped (October 2019).
5. Coordinate a review and analysis of data relating to leisure use of the Chilterns, with a view to commissioning (and getting funded) a new Chilterns Leisure Visitor Survey. This will include a survey of non-users, especially those from urban areas surrounding the Chilterns.



A woman in a blue and green athletic top and black leggings is jogging on a grassy path. In the background, a large town with many houses is visible, surrounded by green fields and trees under a blue sky with light clouds.

*Cultural &
recreational activities
in The Chilterns*

9. SOCIAL AND ECONOMIC WELLBEING

The Chilterns is a living and working landscape, shaped, worked and enjoyed by people living in and around the AONB: 80,000 people live within the AONB and a further 1.6 million live within 8km. Communities and businesses within and beyond the Chilterns AONB enjoy many benefits from the landscape. From resources provided by its natural capital to cultural and recreational activities. There are tangible benefits from its natural resources such as clean water, fresh air and wood for fuel. And it is a place for relaxation, exploration and inspiration, offering a rich cultural heritage, contact with nature, a sense of place and numerous opportunities for leisure, recreation and learning. However, there is low awareness of the Chilterns AONB and its value to society is not fully realised especially to health and wellbeing. In addition, communities and businesses do not always recognise and value the importance of being in the Chilterns or the part they can play as custodians of this heritage.

This can be changed by measuring and demonstrating the value of the Chilterns, building the brand and profile of the area, and securing support and investment for the AONB. By doing this, we can bring even greater benefits to the communities and businesses in and around the Chilterns, and more resources to help protect the Chilterns for the future.



Chiltern Society Path Maintenance Volunteers

The Chiltern Society's South Chilterns Path Maintenance volunteers help Oxfordshire County Council improve access to the rights of way in south Oxfordshire. Since 2007 they have replaced 264 stiles with gates to improve access for all.

In 2017 they contributed 7,284 volunteer hours (2,138 on-site hours) through path clearance, gate installation, waymarking and path surveying.

Key Issues

Farming and forestry are in decline: While the economy of the Chilterns is above the national average, forestry and farming activities such as planting and managing woodlands to produce timber and grazing livestock on the hills are in decline. Work is needed to ensure the Chilterns remain a functional, working landscape with a viable rural economy.

Skills shortage: There is a shortage in the skills required to manage the Chilterns landscape, such as forestry and flint work.

Price of housing: House prices in the Chilterns are well above the national average, making it inaccessible to many that live in the local area. (See section 10, Development.)

Social, welfare and transport issues: Closures of village shops, pubs and community facilities is contributing to isolation and mental health issues experienced by a growing number of people. The volunteering and activities within the Chilterns AONB provide a way of addressing many of these issues. Better access links between rural and urban areas are also needed, as are improved public and community transport options, allowing local people access to facilities and services.

Strategic Objectives

- SO1** Increase the economic and social wellbeing of local communities and businesses by supporting the development of the visitor economy and improving community facilities.
- SO2** Ensure that the Chilterns AONB is recognised and valued by residents, visitors and the health sector for the contribution it makes to peoples' physical and mental health, offering connection with nature and a wide variety of recreational opportunities.
- SO3** Ensure that the natural capital of the Chilterns and its contribution to society is understood and valued by all decision makers and used to lever funding.
- SO4** Ensure that businesses and communities in and around the AONB value its special qualities, support initiatives and help raise the profile of the area.



VOLUNTEERS AT THE VILLAGE SHOP IN WIGGINGTON

Policies

To achieve these objectives, we must work together to:

SO1

SP1 Develop the visitor economy and increase its economic impact.

The Chilterns is a popular destination for local leisure, but awareness of it outside the area is low. There is great potential to attract more visitors, expand the short break market and raise the profile of the Chilterns. The Chilterns has some incredible tourism assets. More could be done to connect them, celebrate them and position them at the heart of the visitor offer.

SP2 Seek the coordination of visitor development and promotion across the Chilterns and secure dedicated resources.

Tourism promotion is largely based on local authority boundaries. Consequently, there is very limited Chilterns-wide tourism promotion other than by the CCB and Chilterns Tourism Network. Additional resources would help to develop and promote sustainable visiting.

SP3 Promote historic market towns as gateways to the countryside.

Many of our market towns are appealing visitor destinations. In addition, they have a special role as gateways to the Chilterns. They are easy to get to by public transport, provide visitor facilities such as car parking, pubs, shops and cafes, and allow easy access to the countryside by foot or on bike.

SP4 Support rural diversification that adds value to the local economy.

Only through diversification can many small to medium-size farms in the Chilterns remain viable. It can provide important visitor facilities, such as farm accommodation. This is in short supply in the Chilterns. What is approved needs to be sympathetic to its setting and the wider landscape.

SP5 Retain and promote community facilities, including shops, pubs, public and community transport, and encourage them where there are gaps in provision.

Many villages in the Chilterns have lost shops and/or pubs over the years, as well as a decline in community facilities and services. Others are under threat. These amenities are the life-blood of the community and affect both local people and visitors. We must support and promote such facilities to help them survive. For example, some villages have been able to step in and buy the pub/shop threatened with closure and run it as a community business.

SP6 Promote local food, drink and craft products.

Recent years have seen many new, high quality, artisan food and drink producers starting up. These range from Chilterns beer and wine to cheese and charcuterie producers. People are increasingly interested in knowing where their food comes from, but awareness of Chilterns produce is low. There is huge potential in promoting the Chilterns' rich diversity of food,



THE ALFORD ARMS
NEAR HEMEL HEMPSTEAD

drink and craft products. This can be through festivals and events, promotional activity and business engagement. By promoting the Chilterns food, drink and crafts heritage, it is also a way of keeping cultural traditions alive (for example Chilterns Apple Days or Cherry Pie Festivals).

SO2

SP7 Encourage greater use of the AONB landscape to improve levels of physical and mental health and wellbeing.

The continued decline in physical activity is a key factor in the deepening health crisis. Yet there is recognition of the significant benefits to physical and mental wellbeing of spending time in a natural environment and taking exercise. There has been a growth in health and wellbeing programmes based on outdoor activity such as health walks and green gyms.

SP8 Expand opportunities for volunteering and lifelong learning and ensure it is better coordinated across the Chilterns.

Provide opportunities for local people and visitors to learn about the Chilterns and to help care for its environment and heritage. Volunteering can bring multiple health benefits; it can increase people's skills and confidence, and it can decrease health inequalities and isolation. There is great potential to attract a wider range of volunteers to reflect the diversity of communities within and close to the Chilterns.

SO3

SP9 Ensure that the value of the natural capital assets of the AONB is better understood and promoted, used to underpin investment and growth strategies, and secure net gain for the Chilterns.

The Chilterns provides multiple benefits to people in addition to the productive capacity of the land. It can support biodiversity, lock up carbon, help ensure clean supplies of water, as well as providing places for leisure, recreation, health and wellbeing. There is a poor appreciation of the benefits people derive from the AONB. In particular, the benefit for populations living outside the AONB is often over-looked. As more land is built on, the need to understand, value and promote the benefits becomes more important.



SO4

SP10 Ensure businesses and communities both in and around the AONB, recognise the value of being located in the Chilterns and endorse the Chilterns brand.

A Chilterns location can benefit businesses and communities. This is especially so for businesses with a connection to the visitor economy. However, the Chilterns does not have a strong brand. There is low awareness of the AONB and its value as a protected landscape. Businesses and communities can play an important role in creating a stronger identity and sense of place for the Chilterns.

SP11 Investigate income generation opportunities including visitor-giving schemes.

Visitor giving is a way of offering visitors and residents the opportunity to give a little something back and help look after the places they love. It is a way of providing a mechanism for collecting those small contributions that can add up to a significant amount.

SP12 Promote the Chilterns at key visitor entry points.

There are some major visitor gateways in or near the Chilterns, including railway stations and termini such as London Marylebone. There are many smaller gateways too, such as the market towns of the Chilterns. Yet people visiting or passing through are often unaware that they are in a special protected landscape and of the wealth of recreational opportunities they can enjoy. High quality information, interpretation and appropriate signage would help people access and enjoy this AONB.



KEY ACTIONS

1. Develop a partnership approach to access health and outdoor activity funds.
2. Explore and access alternative sources of funding to deliver more outdoor activity programmes and benefit more people (including personal health budgets, social or green prescribing and spending commitments by Sport England to encourage physical activity).
3. Seek funding for a range of Chilterns visitor projects based on the priority themes of Food & Drink, Arts & Culture, History & Heritage.
4. Support and promote a rolling programme of Chilterns Festivals throughout the year, including the Walking Festival, Food & Drink Festival, Heritage Festival.
5. Work with the business sector to encourage greater investment and support for Chilterns initiatives.

An aerial photograph of a village nestled in a lush green valley. The foreground shows a cluster of traditional houses with red-tiled roofs and white walls, interspersed with trees. The middle ground is dominated by rolling green hills and fields, with a dense line of trees separating the village from the background. The background features more rolling hills under a clear sky. The text 'Treasure & safeguard our landscape' is overlaid in a white, cursive font across the center of the image.

Treasure & safeguard
our landscape

10. DEVELOPMENT

Areas of Outstanding Natural Beauty are outstanding landscapes whose distinctive character and natural beauty are so precious that it is in the nation's interest to safeguard them. Special planning controls apply in the AONB. The planning system protects AONBs in order to conserve and enhance their natural beauty. In this chapter, we set out policies for development in the Chilterns AONB to help look after it for current and future generations and ensure that anything that is built genuinely enhances the AONB.

In the AONB the planning priorities are conservation and enhancement of landscape and scenic beauty, and the conservation of wildlife and cultural heritage (see the National Planning Policy Framework³⁵, paragraph 172). Whilst nationally there is a need for development, there is also a need to protect the most special places, the finest and most beautiful parts of the countryside. This is particularly true for the Chilterns, an irreplaceable green lung for London and the south east.

The Chilterns AONB is split across thirteen local authorities³⁶ which have the responsibility for housing allocations and development decisions through planning policy and development management functions. Local authorities have a legal duty to have regard to conserving and enhancing the natural beauty of the AONB³⁷. They also have the power to take all such action as appears to them expedient to accomplish this³⁸. Conservation Boards are well placed to work with local planning authorities in an advisory role, we bring understanding of local landscape character, sensitivities and capacity for accommodating change.

We comment as consultees on all emerging plans and major planning applications and we prepare guidance for householders, architects and developers. We bring together those who make plans and determine planning applications in the Chilterns to encourage cross-boundary thinking and co-operation over the AONB.



This AONB Management Plan is not part of the statutory development plan, but it may be a material consideration in planning application decisions³⁹ and planning weight can be appropriately attached. This AONB Management Plan should be considered when developing local plans and neighbourhood plans within or affecting the Chilterns AONB. It provides evidence on the characteristics of the Chilterns and objectives for development in the Chilterns.

It is the only plan for the whole AONB. It should be read along with government policy for the AONB set out in the National Planning Policy Framework, and policies in local authority development plans and communities' neighbourhood plans.

³⁵www.gov.uk/government/publications/national-planning-policy-framework--2 ³⁶www.gov.uk/find-local-council ³⁷ Section 85 of Countryside and Rights of Way Act 2000 www.legislation.gov.uk/ukpga/2000/37/section/85 ³⁸ Section 84 of Countryside and Rights of Way Act 2000 www.legislation.gov.uk/ukpga/2000/37/section/84

³⁹ National Planning Practice Guidance section on Natural Environment www.gov.uk/guidance/natural-environment

Protocol for consulting the Chilterns Conservation Board

The CCB has a Planning Committee and employs a Planning Officer to provide specialist AONB planning advice on both development plans and planning applications. A protocol is in place with local planning authorities setting out when to consult the Board, including on all applications for:

- Major housing development (for example 10 dwellings or more or 0.5 hectare or more) or employment and similar development (1,000 square metres or 1 hectare or more)
- Telecommunications masts
- Extraction of brickearth and development related to the local brick making industry
- Waste activities
- Floodlighting or other intrusive lighting
- Equestrian development, particularly larger in scale and in prominent locations
- Large scale agricultural or employment development
- Single, large isolated dwellings (new or replacement)
- Land operations that involve significant cut or fill or alterations to landform
- Noisy or intrusive recreation proposals
- Gypsy and traveller accommodation
- New visitor facilities
- Airport development likely to lead to overflying of the AONB
- Renewable energy⁴⁰ developments, particularly for major energy generation

Other smaller proposals including those in prominent locations or likely to set a precedent, or involving the loss of a community facility, should also be referred to the Board for comment.



There are stretches where you don't see a building for miles, this is a rare experience in the busy south east

Key Issues

Pressure for development: The Chilterns is a highly desirable area in which to live, within easy commuting distance of London. Research shows a four-fold increase in the number of new homes granted planning permission each year in the Chilterns AONB⁴¹. Local authorities face pressures when preparing their local plans and some, with a shortage of alternatives, are proposing significant housing allocations in the AONB. Government policy confirms that the presence of AONBs can restrict development in order to help achieve sustainable development⁴² and that “the scale and extent of development within these designated areas should be limited”⁴³.

Small-scale changes: Small piecemeal changes to land and buildings can harm the natural beauty of the Chilterns AONB. Examples include pony paddocks, garden extensions, newly landscaped grounds, the spread of fencing, replacement windows, new external lighting, private leisure buildings, trampolines and children’s play equipment. Electric gates, high fencing and CCTV over public rights of way make the area feel more exclusive, and people feel excluded. They change the distinctiveness, heritage and character of the landscape, and leave less space for nature. The Board has prepared advice in the Chilterns Buildings Design Guide⁴⁴ and supplementary technical notes to help householders and landowners to make well-informed choices so that changes are appropriate to the special qualities of the

Chilterns AONB. The advice covers all aspects of building renovation, extensions, appropriate materials, outbuildings, boundary treatments etc. Our series of Chilterns Landowners’ Guides⁴⁵ include information on appropriate native species for new hedgerow and tree planting in the Chilterns, and advice for horse owners.

Permitted Development: AONBs have traditionally been excluded from permitted development, but in recent years these rights have been widened, reducing councils’ ability to control and secure appropriate forms of development. However, where permitted development rights threaten harm to the AONB, local planning authorities can invoke powers to remove them using Article 4 Directions.

Cumulative impact of development: A single planning proposal may affect only a small area of the AONB. However, a number of similar developments in the area, incremental changes over time, or a series of new developments in sequential views along an important trail, can have a significant cumulative impact. The character of the AONB, its wildlife and people’s enjoyment could slowly diminish over time. We have further advice in our Position Statement on the Cumulative Impacts of Development on the Chilterns AONB⁴⁶.

⁴¹Independent Review of Housing in England’s AONBs (2017) shows the number of homes permitted in the Chilterns AONB rose from an average of 82 per year before 2012, to over 386 per year during 2015–17 (the 386 figure is an under-count because the 2015–17 figures exclude smaller sites of less than 10 units). ⁴²National Planning Policy Framework para 11 and footnote 6 make it clear that the requirement for local plans to meet objectively assessed needs does not apply in AONBs. ⁴³National Planning Policy Framework para 172. ⁴⁴www.chilternsaonb.org/conservation-board/planning-development/buildings-design-guidance ⁴⁵www.chilternsaonb.org/about-chilterns/farming-land-use/guidance-for-landowners ⁴⁶www.chilternsaonb.org/conservation-board/planning-development/position-statements

Strategic Objectives

DO1 Ensure planning decisions put the conservation and enhancement of the AONB first.

DO2 Ensure that where development happens, it leaves the AONB better than it was before – richer in wildlife, quieter, darker at night, designed to have a low impact on the environment, and beautiful to look at and enjoy.

DO3 Embrace opportunities to restore natural beauty on sites currently degraded by unsympathetic development, infrastructure or dereliction.



Policies

To achieve these objectives, we must work together to:

DO1

DP1 Ensure planning decisions take full account of the importance of conserving and enhancing the natural beauty of the AONB and the great weight given to its protection in the NPPF.

The purpose of designating an area of countryside as AONB is to conserve and enhance its natural beauty. That is the single and only purpose in law. An AONB must be treated differently from the wider countryside; it has the highest status of protection for its landscape and scenic beauty, equal to National Parks. Government policy is that great weight⁴⁴ should be given to conserving and enhancing landscape and scenic beauty in AONBs. The conservation of wildlife and cultural heritage are also important in AONBs. This requirement applies to all sizes of planning proposal, large and small.

The term 'natural beauty' covers a wide range of elements, including landform and geology, plants and animals, landscape features, and the rich history of human settlement over the ages⁴⁵. Put together these elements make the area distinctive. How the landscape looks is therefore only part of what must be considered in order to conserve and enhance natural beauty. Planners must assess impacts on natural beauty which are both direct, like loss of habitat for construction or a proposed new building of unsympathetic design, and indirect, like a new development affecting traffic levels, air quality, chalk streams and tranquillity in the AONB.

DP2 Reject development in the AONB unless it meets the following criteria:

- a. it is a use appropriate to its location,
- b. it is appropriate to local landscape character,
- c. it supports local distinctiveness,
- d. it respects heritage and historic landscapes,
- e. it enhances natural beauty,
- f. ecological and environmental impacts are acceptable,
- g. there are no detrimental impacts on chalk streams,
- h. there is no harm to tranquillity through the generation of noise, motion and light that spoil quiet enjoyment or disturb wildlife, and
- i. there are no negative cumulative effects, including when considered with other plans and proposals.

Policy DP2 sets out what to consider in order to give great weight to conserving and enhancing the AONB. It applies to all development in the AONB, both minor and major.

DP3 Refuse planning permission for major development in the AONB unless there are exceptional circumstances and where there is a clear demonstration it is in the public interest.

Government policy requires that planning applications for major developments in AONBs should be refused “other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest”⁴⁷.

Planning law establishes quantitative size thresholds to distinguish between major and minor development, but the NPPF explicitly states that these thresholds should not be used to identify major development in National Parks and AONBs. Here a more qualitative assessment is needed⁴⁸. Whether a proposal is major development in an AONB is a matter for the decision maker, normally the local planning authority or in the case of appeals, a planning inspector. Developments below the size of the usual thresholds for major development could constitute major development in the AONB, for example a single large house in a prominent location on the Chilterns escarpment. The protocol for when to consult to Board (see box on page 72) may be a useful indication of types of development more likely to major.

In deciding whether a proposal constitutes major development in the AONB, the Board recommends that decision makers consider whether the proposal, by reason of its nature, scale and setting, has the **potential** to have a significant adverse impact on the purpose of conserving and enhancing natural beauty, and on the special qualities of the Chilterns AONB (see introduction pages 7, 10 and 11). The potential for adverse impact will include the consideration of both the impact of cumulative development and the individual characteristics of each proposal and its context.

If a proposal is major, the decision maker will need to assess against the considerations in the NPPF para 172. Major housing schemes are unlikely to be acceptable because the need could be met outside the Chilterns AONB, elsewhere in the housing market area. Similarly for large economic development, energy and other major proposals. If it is considered that exceptional circumstances exist and development would be in the public interest, all opportunities to conserve and enhance the special qualities should be sought, by following policies DP1 to DP15.

⁴⁷National Planning Policy Framework para 172. Deciding whether a proposal is ‘major development’ is a matter for the decision maker, taking into account its nature, scale and setting, and whether it could have a significant adverse impact on the purpose of conserving and enhancing the natural beauty of the AONB. ⁴⁸See box in this Plan’s Introduction ‘What is natural beauty?’

DP4 In the setting of the AONB, take full account of whether proposals harm the AONB. For example, development of land visible in panoramic views from the Chilterns escarpment, or which generates traffic in or travelling across the AONB, or which increases water abstraction from the chalk aquifer, thereby reducing flow in chalk streams.

A development outside the AONB boundary can cause harm to the AONB, even if it is some distance away. The local authority's legal duty towards the AONB⁴⁹ applies when a proposal affects land in the AONB, regardless of where that effect originates (inside or outside the AONB). We have produced special advice in a Position Statement on Development Affecting the Setting of the Chilterns AONB⁵⁰. The setting of the AONB is not a geographic zone that can be mapped, nor does it cover a set distance from the AONB boundary. Tall structures like chimneys that break the skyline or large growth proposals even far away can have an impact on the AONB, and so fall within the setting. Adverse impacts are not only visual, a noisy development may impact adversely on the tranquillity of the AONB even if not visible from the AONB. We consider that the setting of the Chilterns AONB is the area within which development and land management proposals (by virtue of their nature, size, scale, siting, materials or design) may have an impact, either positive or negative, on the natural beauty and special qualities of the area.

Outside the AONB, the Chilterns is surrounded by large settlements, many of which are planned to expand. For example, Aylesbury has been designated a Garden Town and will grow by at least another 13,500 homes. Growth is also being planned for Luton, Princes Risborough, High Wycombe, Hemel Hempstead and Chinnor, to name just a few. Some of these expansion plans include land within the AONB and many include land in its setting. The vast scale of the nearby Oxford to Cambridge growth corridor will change the strategic geography of the region, making it even more important that the Chilterns is protected to play its role in the health and wellbeing of that future population.

⁴⁹in Section 85 of the CRoW Act. ⁵⁰www.chilternsaonb.org/conservation-board/planning-development/position-statements



BEFORE DEVELOPMENT IN THE SETTING OF THE AONB

This green field at Alscot outside the AONB, and the view to the hill and panoramic views from the top of Whiteleaf Hill, will be lost to development under plans for a 2,500 home urban extension of Princes Risborough.



AFTER DEVELOPMENT IN THE SETTING OF THE AONB

This "after" example from Chinnor (Former Garden Centre Site) shows how development can harm the view to the AONB. The edge of Chinnor is now very visible from the Thame Road, Emmington Road and the public footpaths in between. The density and the alignment with the houses tightly packed in a row, and lack of screening planting contribute to the negative effect on views towards the escarpment.

The Chilterns chalk aquifer serves as the major source for drinking water for the AONB and wider sub-region. Over-abstracting this resource has contributed to chronic low flows in Chilterns chalk streams⁵¹. Drying up is shortening their functioning length, for example one Chilterns chalk stream, the River Ver, no longer flows at all in the AONB. Current levels of abstraction are unsustainable and need to be reduced to restore chalk stream ecology, chalk stream natural function, and the value of chalk streams to landscape character. Development in the setting of the AONB and the future growth arc will require construction of new strategic water resources (e.g. reservoirs, water transfers and desalination plants) elsewhere in the south east of England, to avoid further serious harm to chalk streams and to help restore flows.

DP5 Require a Landscape and Visual Impact Assessment that meets the standards in the GLVIA⁵² latest edition for developments in the AONB or affecting its setting.

All but the smallest projects should be accompanied by a LVIA to ensure that impacts are assessed and understood. This must address effects on both the protected landscape as a resource in its own right (whether visible or not), and effects on views and visual amenity (as experienced by people). The LVIA should be prepared early enough to inform the evolution of a project, so that it is landscape-led, demonstrably contributes to conservation and enhancement of the natural beauty of the AONB, and fully respects and integrates the special qualities of the AONB into the planning, design, construction and management of the development, from the very beginning of the project's inception. Visualisations and photomontages can help developers, decision makers and communities understand the effects of proposals. LVIA's should include night time effects as well as day time, to identify any risk of light pollution.

DP6 Support sustainable farming and forestry, nature conservation and facilities for visitors appropriate to the special qualities of the AONB.

Planning policies and decisions should encourage the Chilterns' role as a haven for wildlife, a place to experience history and enjoy the outdoors. Types of developments most likely to benefit from the AONB, and in return bring benefits to the AONB, are those that are most compatible with conserving and enhancing its character and supporting public appreciation. These include sustainable farming and forestry, tourism businesses (e.g. accommodation, food and drink, visitor attractions, health and adventure challenges), tourism-related businesses (e.g. retail, arts and crafts, diversified farm businesses), industry reliant on resources unique to the Chilterns (e.g. Chilterns brickworks), countryside trades and rural skills (e.g. woodcrafts, flint working), businesses which directly benefit the environment (e.g. nature conservation and vernacular building repair) or that showcase its beauty and history (e.g. the Chilterns as a film location).

Conversely, developments most likely to be disadvantaged from an AONB location include those with no particular reason to be in the area, especially those offering little or no benefit to conserving and enhancing the character of the AONB. These tend to detract from public appreciation and blur the distinction between the AONB and outside. These include large new greenfield housing estates, large industrial activities, distribution and haulage, waste processing, and businesses with extensive built footprints that develop and grow rapidly.

⁵¹See also Nature (Policy NP4) and Land, Woodland & Water (LP13, LP21, Key Action 5) ⁵²Guidelines for Landscape and Visual Impact Assessment, produced by the Landscape Institute

DO2

DP7 Only support development that is of the highest standards of design that respects the natural beauty of the Chilterns, the traditional character of Chilterns vernacular buildings, and reinforces a sense of place and local distinctiveness. Require a Design and Access Statement to accompany every application, explaining how it complies with the Chilterns Buildings Design Guide www.chilternsaonb.org/conservation-board/planning-development/buildings-design-guidance

The Chilterns has a distinctive vernacular architecture based on the consistent use of local materials: Chilterns brick, clay roof tiles and flint. Attractive villages like Ewelme, Turville, Hambleden and Aldbury are among our most popular visitor destinations. New development of all types needs to respect vernacular architecture, settlement character and the local landscape. This will require developers to do more than use standard designs.

New design must also exhibit the highest environmental standards in terms of energy and water conservation whilst complementing the character the AONB. Local natural resources should be used in new construction (local timber, locally made bricks and tiles, clunch and flint) to continue the vernacular materials tradition and support the last remaining local producers, recognising their vital importance for historic buildings repair.

The Board has published the Chilterns Buildings Design Guide which has been adopted as supplementary planning document by most of our local planning authorities. It covers topics such as the setting of buildings, the design of vernacular features and the use of traditional local materials.

Conserving and enhancing natural beauty does not simply mean screening development behind vegetation or using designs which clad a standard house type with local materials.



Classic Chilterns vernacular architecture at Turville: small-scale cottages of local brick and flint with clay tile roofs



The Chilterns Conservation Board runs the Chilterns Building Design Awards with the Chiltern Society to encourage and recognise good design. This new build Winery at Hundred Hills Vineyard, South Oxfordshire won the latest awards



'Anywhere' designs fail to keep the Chilterns special and distinctive



Grand new build projects can also be insensitive to the AONB. Stark, white, huge and angular this replacement dwelling, here viewed from the Chilterns cycleway, dominates the landscape in its siting and design.

DP8 Keep skies dark at night by only using light where and when needed. All new lighting should be the minimum required and meet or exceed guidance⁵³ for intrinsically dark zones. Avoid architectural designs that spill light out of large areas of glazing.

The Chilterns AONB has relatively dark skies for the south east, making it a place people can still experience the wonder of starry skies and good for wildlife. AONBs are intrinsically dark environments (Zone E1 in the Institute of Lighting Professionals guidance) and planning conditions should be applied to restrict and control lighting. Light pollution of all types should be first prevented, by avoiding light where it is not needed, and where it is, by designing lighting to mitigate harm, through shading, height of fixings, beam orientation, LUX, colour temperature and the proposed hours of use. For example, downward pointing, shielded, operated on timer, and with a 'warm white' colour temperature of 2700-Kelvin maximum.

Traditional Chilterns vernacular buildings have small windows. Moderns designs with large areas of glazing should be avoided so that buildings do not appear as boxes of light in the countryside at night, and glinting glazing in the daytime.



**KEEP DARK SKIES AND STARS BRIGHT:
LIGHT POLLUTION SPILLING FROM MODERN BUILDING**

DP9 Ensure that the design and implementation of High Speed 2 complies with the HS2 Detailed Design Principles⁵⁴ prepared by the AONB Review Group.

This document sets out design principles that could reasonably be applied to HS2 works in the Chilterns AONB and its setting, and which aim to achieve an exemplar landscape design for the project.

DP10 Make sure that all development that is permitted in the AONB or affecting its setting delivers a net gain for the Chilterns by

- a. on-site improvements for biodiversity, landscape, the rights of way network, AONB visitor facilities, and/or
- b. financial contributions, secured through s106⁵⁵, CIL⁵⁶, or offsetting schemes, towards wider green infrastructure projects that enhance the AONB by meeting the aims of this AONB Management Plan.

The introduction of the Community Infrastructure Levy and use of biodiversity accounting provide a way for developments to fund green infrastructure and biodiversity projects. Using these mechanisms, individual developments can contribute to conservation and restoration projects, and help offset the incremental increases each bring like traffic, recreation pressure, path erosion, and habitat reduction and severance. Avoiding harm, reducing harm and compensating for it is likely to play an increasing role. Delivering on-site

enhancements should come first before off-site contributions are considered. The government is moving to an environmental net gain principle for development, with mandatory biodiversity net gain in the short term, and longer-term plans for environmental net gain. The CCB recommends environmental net gain in nationally protected landscapes should include funding projects that connect people to the natural environment, maintain and expand the rights of way network, and restore and enhance natural beauty of the AONB.

All development in and affecting the AONB should contribute through on-site conservation and enhancement of the AONB, and/or (depending on its scale and impacts) contribute financially to projects which assist with delivering AONB Management Plan aims. For example, large-scale housing and growth proposed near the AONB will mean extra near neighbours of the Chilterns. This investment could repair and connect habitats, strengthen the AONB's capacity for accommodating additional visitors without damage, create new walking and cycling green infrastructure links into the AONB, and provide suitable alternatives to visiting the Special Areas of Conservation.

We will work with partners to develop a menu of green infrastructure AONB projects to be funded by development (see section 11, Implementation).

⁵³Institute of Lighting Professionals (ILP) Guidance GN01: 2011 Guidance Notes for the Reduction of Obtrusive Light ⁵⁴www.chilternsaonb.org/latestNews/hs2/HS2-Review-Group ⁵⁵Section 106 agreements are legal agreements between a planning authority and a developer, or undertakings offered unilaterally by a developer, that ensure that certain extra works related to a development are undertaken (under section 106 of the 1990 Town & Country Planning Act). ⁵⁶The Community Infrastructure Levy (CIL) is a planning charge, introduced by the Planning Act 2008 as a tool for local authorities in England and Wales to help deliver infrastructure to support development.



DP11 Where a local community need is shown, support the development of well-designed, small-scale homes within villages which are affordable⁵⁷ for people who work within or have long-standing family connections to the Chilterns AONB.

The Chilterns is becoming increasingly expensive as a place to live. Research by Savills using Land Registry data shows that house prices in the Chilterns AONB attracted a premium of 75% above the average house price for the counties, and 162% above the UK average:

Area	Distinction	Average Second-hand Sale Price, 12 months to April 2018	5 Year Growth	Premium above County(s) average	Premium above UK average
Chilterns	AONB	£718,629	29%	75%	162%

Source: Savills Research using Land Registry

Although many homes have been permitted in the AONB in recent years, very little of it has been affordable housing. Regrettably, there have been no Rural Exceptions Schemes⁵⁸ in the Chilterns for several years and the stock of affordable homes has dwindled through the right to buy and loss of tied accommodation that goes with a job. Outdoor work in farming, forestry, conservation land management, tourism and public services is typically low paid, making it hard for people with the skills the AONB needs to stay, and the area's cultural heritage is lost when families with long local connections move away. Rural pubs, village shops and barns are being lost to residential conversion, while smaller homes and bungalows seem attractive propositions for redevelopment into luxury large replacement dwellings.

We need new approaches to make sure the right kind of housing is being built. This does not mean proposing any extra housing development in the Chilterns, already 300–400 homes a year are approved in this AONB, the challenge is changing who they are for, so that homes are available and affordable for local people. Sensitively-designed conversions, infill, rural exceptions sites and community-led housing schemes in the villages of the AONB can benefit the AONB. They are best when of a small-scale and meeting local needs.

DP12 Support sympathetic proposals that enhance the Chilterns as a place to visit, live, explore and enjoy. Protect existing visitor and community facilities, such as rural pubs, public transport, B&Bs, youth hostels, village shops and cafes. Support sensitively designed new visitor facilities.

Small-scale, carefully-sited and well-designed proposals that provide or enhance community facilities are likely to be welcome. Proposals that involve active travel into and across the Chilterns by walking, cycling, horse riding, bus and train, rather than private car are the most compatible with AONB designation purposes.

Existing facilities, such as rural pubs, shops, public transport and community buildings, should be protected from loss or change of use. They are important assets and once lost are hard to replace.

DO3

DP13 Support opportunities for enhancing the AONB by removing derelict or detracting developments and infrastructure.

There are some places in the AONB where buildings and structures like pylons, rail gantries, telecoms masts, television masts, waste sites, minerals sites, and farm infrastructure have scarred the beauty of the Chilterns. The removal of unsightly structures can help restore beauty and rural character. Infrastructure providers should remove all redundant masts and equipment. We welcome continued investment in undergrounding overhead electricity lines in the AONB and recommend that all new supplies should be undergrounded unless there are ecological or archaeological constraints to this.

⁵⁷Affordable housing is housing for eligible households whose needs are not met by the market. ⁵⁸Rural Exceptions Schemes are small sites used for affordable housing in perpetuity where sites would not normally be allowed for housing. They seek to address the needs of the local community by accommodating households who are either current residents or have an existing family or employment connection.

DP14 Avoid new or upgraded infrastructure (roads, railways, airports, pylons, masts etc.) which harm the AONB landscape, nature, air quality, tranquillity or the visitor experience. Fully assess impacts on the AONB, including increased recreation pressure, traffic, overflying and severance of ecological connectivity in the AONB. Avoid, mitigate and compensate to achieve a net gain for the AONB.

In recent years, growing traffic volumes, speeding and rat running through the AONB have brought more noise, motion, air pollution into the AONB. Wildlife-rich verges and ancient sunken lanes are being eroded and damaged by vehicles passing one another. Our most highly protected natural habitats in the Chilterns, the three Special Areas of Conservation, are all sensitive to air pollution and are all exceeding critical loads, which may lead to a loss of rare species. There are also safety risks for those wanting to enjoy the Chilterns on foot, bicycle and horseback.

Unsympathetic, over-engineered road schemes and excessive street lighting can further harm the AONB. We have produced design advice on sympathetic management of Chilterns Highways in guidance produced with the County Councils⁵⁹.



Railways offer sustainable travel options to the Chilterns but also involve noise and, in the case of rail electrification, visual intrusion to beautiful landscapes. A whole new railway, HS2, will be constructed through the Chilterns AONB at its widest point, bringing severance and major permanent impacts on the landscape. On its own, this is enough change for the Chilterns to accommodate for a century. However, other pressures continue, like airport expansion at Heathrow and Luton which could result in more aircraft over-flying the AONB and harm its tranquillity. The effects on the Chilterns AONB must be assessed in full and cumulatively with other projects early in the decision-making process.

Harm to nationally designated landscapes is not something that can be offset, it is not possible to create a landscape of this unique natural beauty elsewhere as a substitute. The mitigation hierarchy in environmental policy and best practice prioritises 1) the avoidance of harm; before 2) identifying all possible mitigation; and only then deals with 3) compensatory measures in relation to residual impacts. Compensation is a last resort. Large national projects like HS2 are triggering a requirement for major investment in landscape to compensate (in some way) for harm.

DP15 Seek opportunities to remove or replace existing inappropriate external lighting to restore dark skies at night.

Householders, farms, community facilities, recreational facilities and businesses in the AONB can take simple steps to reduce light pollution by:

- Angling existing lights downwards
- Fitting timers
- Replacing existing lighting with designs appropriate for intrinsically dark zones

KEY ACTIONS

1. Work together to ensure all development plans covering the Chilterns conserve and enhance the AONB, for example by incorporating the Chilterns AONB model policy⁶⁰ and exploring the scope for joint development plan documents for the AONB.
2. Apply the CRoW Act 2000 Section 85 duty⁶¹ and refer to it when making decisions on planning proposals in or affecting the Chilterns AONB
3. Apply the advice in the Chilterns Buildings Design Guide to ensure high quality sympathetic development.
4. Encourage innovative mechanisms for rural affordable housing compatible with conserving and enhancing the natural beauty of the AONB.
5. Work together to develop AONB enhancement projects that can be funded by development through s106 contributions, CIL and funding packages to compensate for the impacts of urban growth or infrastructure projects.

⁶⁰Model Policy for the Chilterns AONB www.chilternsaonb.org/conservation-board/planning-development/planning-training

⁶¹www.legislation.gov.uk/ukpga/2000/37/section/85

Let's make a commitment to caring for the Chilterns



11. IMPLEMENTATION AND MONITORING

The creation of a Management Plan for the Chilterns AONB is led by the Chilterns Conservation Board (CCB) on behalf of those who have a responsibility or duty for the Chilterns; and for those who have an interest in and commitment to caring for the Chilterns.

The CCB has gathered feedback and input from the public, partners and stakeholders to create this plan. The plan describes what is needed to continue to conserve and enhance the AONB, to engage and benefit people, and sets out key areas for partnership action. The Chilterns AONB Management Plan is top-level and to implement the plan, the CCB will work with partners to agree and take forward detailed action plans. These detailed action plans will take account of the new Environmental Land Management system (once agreed) and outcomes of the Glover Review of National Parks and AONBs.



Implementation

Implementation requires three key components to be secured:

- Partnership working
- Capacity and expertise
- Appropriate resourcing

Many organisations have a remit to deliver elements of this Management Plan and all potential partners will be invited to work with the CCB to plan implementation.

To ensure this Management Plan is delivered, it is necessary for the following to be in place:

1. Secure funding from central government for the CCB to allow it to lead and facilitate the implementation and carry out core functions such as planning advice.
2. Commitment and funding from local authority partners who have a duty to care for the AONB and contribute to the CCB to ensure the duty is coordinated effectively across authorities.
3. Support from farmers, landowners, land agents and land managers for policies and actions to conserve and enhance the natural beauty of the AONB, for example, working to shared conservation objectives through farmland clusters.
4. Commitment from partner organisations to deliver the critical actions which fall within their remit. For example, the maintenance of Rights of Way by local authorities, low flow alleviation work by water companies and undergrounding of power lines by utility companies.
5. Strengthened relationships with parish councils, community organisations and non-governmental organisations within and near the AONB.
6. A new Environmental Land Management system, replacing Common Agricultural Policy agri-environment schemes, which provides support for land and woodland management, targeting natural capital protection, nature's recovery and access, providing public funding for public benefit.
7. Joint working to develop a menu of green infrastructure AONB enhancement projects that can be funded by development through Section 106 contributions, Community Infrastructure Levy and funding packages to offset the impacts of growth, recreation pressure and infrastructure projects in and around the Chilterns.
8. Expertise and support from statutory agencies including Natural England, Environment Agency, Forestry Commission and Historic England.
9. Commitment from partner organisations to pool resources and expertise on priority project work (e.g. Thames Water and Affinity Water providing support to the Chalk Streams Project).
10. Design and development of initiatives that attract additional sources of funding, such as the LEADER funding for the Chilterns Walking Festival and HLF funding for Beacons of the Past.
11. An effective partnership forum that allows partners to collaborate effectively, agree key actions and share best practice from one another.
12. Contributions from many people who give their time freely, volunteering for conservation charities, maintaining footpaths and nature reserves, acting as walking festival walk guides, and so on.
13. Datasets for monitoring outcomes which are accurate, accessible, repeatable, up to date, and relevant to the geographic area of the AONB.

How will the delivery of the Chilterns AONB Management Plan be monitored?

This Management Plan sets out a series of policies and actions that aim to:

- Conserve and enhance the natural beauty of the Chilterns
- Enhance public understanding and enjoyment of the special quality of the AONB

Effective long-term planning and decision-making requires evidence of the condition of the AONB together with an understanding of long-term changes and drivers for change.

In the 2008–2013 Management Plan the CCB set out a series of 20 headline condition monitoring indicators, and the first State of the Chilterns Environment report was published in 2009. These condition monitoring indicators have been refined and adapted over the intervening years and reported against at intervals.

Gathering the evidence against these headline indicators is an ongoing challenge. Many of the indicators originally proposed cannot be assessed as datasets are no longer collected or costs of doing so have become prohibitive. There have also been changes in the frequency of collection, making long term trend monitoring difficult.

Taking account of these challenges, our proposal for monitoring and evaluation over the period of the current plan is to create a two-tier set of monitoring indicators: **Core** and **Theme** indicators.

Core Monitoring Indicators

This is the set of indicators that we consider essential for long term trend monitoring and that we aim to report on regularly (at least twice) over the course of the plan period (subject to data availability).

These are based largely on datasets provided to AONBs by Natural England or readily available from other sources. Fulfilling this reporting relies upon these partners or third parties providing the data.

Over the course of the plan period we will work with partners to develop a series of additional measures (including themed studies and indicators) to deepen our understanding and provide insight to inform delivery of the policy objectives of the Management Plan.

We hope to make greater use of aerial photography and remote sensing to monitor change.



1. FARMLAND MANAGEMENT

Environmental Land Management Scheme

- Area of overall take up and of specific options
- % of Utilisable Agricultural Area in ELMS
- Predecessor scheme, area of take up

2. WOODLAND MANAGEMENT

Area of woodland

- % woodland under active and positive management

3. PRIORITY HABITAT

Area of priority habitats

4. SITES OF SCIENTIFIC INTEREST

- % SSSI units in favourable condition
- Condition of SSSI units by broad habitat
- % geological SSSI units

5. WATERBODIES

- % of waterbodies in good ecological status (Water Framework Directive)
- Kilometres of watercourse improved or enhanced

6. HERITAGE ASSETS

Scheduled Monuments; Listed buildings (Grade 1/ 11* / 11); Registered Parks and Gardens

- % at risk
- % in improved condition

7. LAND ENHANCED

Area of land in positive conservation management

8. VOLUNTEERING

- % change in number of volunteers/volunteer days

Theme Indicators

We will work with partners to devise measures in relation to each of the following themes:

CONSERVATION AND ENHANCEMENT OF NATURAL BEAUTY

We will explore options to measure:

- Landscape change (e.g. fixed-point photography/volunteer survey)
- Invasive non-native species – spread and number/impact of management schemes (e.g. for deer and grey squirrels)
- Percentage change in key species groups and character species – presence, range, abundance
- Number of non-designated heritage sites identified and mapped
- River fly monitoring as measure of pollution incidents
- Length of hedgerow restored per year
- Number of hedgerow trees planted per year
- Length of field margin managed per year
- Net biodiversity gain
- Investment of developer contributions in the AONB and its setting
- Number of major planning applications in the AONB per year
- Air quality
- Tranquillity/noise

ENJOYMENT AND UNDERSTANDING OF THE SPECIAL QUALITIES OF THE CHILTERN

We will explore options to measure:

- Quality of rights of way and accessibility – survey of walk leaders and footpath monitors
- Website hits/leaflet downloads
- Leisure use of the Chilterns – new visitor survey, including survey of 'non-users'
- Number of members of conservation groups in the Chilterns (BBOWT, Chiltern Society, National Trust, Woodland Trust etc.)
- Perceptions of the value of the AONB
- Increased number of rights of way, perhaps as permissive or equivalent
- Additional Access Land and Local Green Space designation

SOCIAL AND ECONOMIC WELLBEING

We will explore options to measure:

- Participation in health walks
- Growth of population with AONB and within 5km of AONB
- Number/value of visitors/tourists
- Numbers employed in tourism
- Number of rural exceptions sites and community-led housing schemes to meet local needs
- Number of young people engaged
- Number of community groups engaged

SUMMARY

In summary, the objectives and policies outlined in this Management Plan will help drive a coordinated effort to enhance the natural capital and special beauty of the Chilterns AONB over the next five years.

The Management Plan will form the focus of the CCB's efforts to grow and nurture the Chilterns AONB. It will inspire and guide those with a stake in the Chilterns to actively take part in its conservation. From local authorities and members of government to business owners and the surrounding communities, all can plan a role in the future of this Area of Outstanding Natural Beauty.





*Nurture the Chilterns
Area of Outstanding
Natural Beauty*

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Chilterns Conservation Board:

The Lodge, 90 Station Road, Chinnor, Oxon OX39 4HA

Tel: 01844 355500

Email: office@chilternsaonb.org

www.chilternsaonb.org

