



Mendip Hills Area of Outstanding Natural Beauty (AONB)

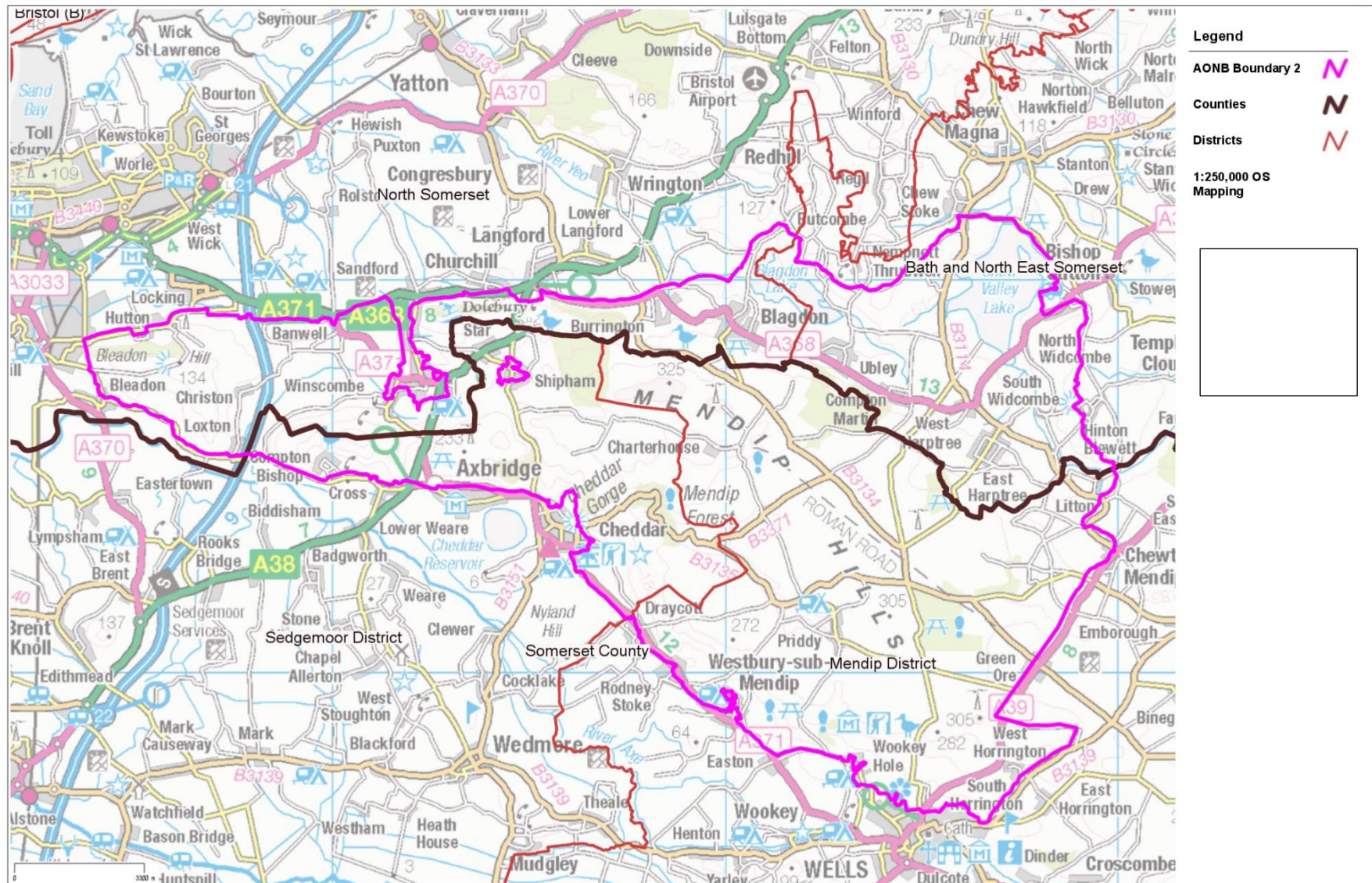
Management Plan 2019-2024

(January 2019)

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Administrative Boundaries 2018



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Minister's Foreword

I am fortunate that England's Areas of Outstanding Natural Beauty 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 Mendip Hills AONB. It is significant that this plan will be delivered in partnership by those who value the Mendip Hills 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.

Lord Gardiner of Kimble
Parliamentary Under-Secretary of State for Defra
October 2018

Chairman's Foreword

The Mendip Hills Area of Outstanding Natural Beauty (AONB) is a naturally beautiful and nationally protected landscape, and the balance of management decisions around it needs special care and consideration.

The AONB Partnership brings together people and organisations to ensure that the Mendip Hills retain their unique character and special qualities, whilst recognising that it is a place for people to live in, work in, and visit.

The partnership approach has never been so important. Delivering an integrated approach to management of our protected landscape is an ongoing challenge, with the uncertainties over national and local government funding, pressures for more housing, and changes to farm payment systems from leaving the EU.

The Mendip Hills AONB Partnership has undertaken a review of the 2014-2019 Management Plan on behalf of the local authorities, who have the statutory duty to prepare AONB Management Plans under the Countryside and Rights of Way Act. With their continued support and involvement, we very much look forward to working with all partners, and others to deliver this revised Plan.

This revised Management Plan for 2019-2024 recognises that conservation and enhancement of natural beauty, and landscape quality, are inextricably linked to social, and economic vitality. The ambitions and priorities in this plan have the backdrop of evolving national policy, and a government review of protected landscapes. A key role for the AONB Partnership will be to collate, and share information to ensure the outcomes enhance the Mendip Hills AONB.

With the continued commitment of partners and the many public, private, and voluntary sector groups, whose work benefits the area, I am confident that with our track record of achievement, despite limited resources, we can continue to conserve and enhance this special landscape that so many enjoy and benefit from.

Cllr Nigel Taylor
Chairman, Mendip Hills AONB Partnership
October 2018

Mendip Hills AONB Partnership Structure

The Mendip Hills AONB Partnership has the formal status of a Joint Advisory Committee to the five local authorities. The broad representation of partners enables the partnership to have a 'voice' independent of the local authorities. Members of the Partnership are expected to utilise their skills and experience to help deliver the vision for the AONB.

The Partnership:

- make things happen, translating vision and national policy into local action
- engage with local communities and foster their skills, knowledge, and energy
- provide value for money by securing additional funding, resources, and project partners
- use innovative approaches to deliver real results through genuine collaboration
- promote sustainable rural growth, leveraging in a variety of income to conserve and enhance the natural environment for the benefit of society and the economy

An **Officer Support Group**, consists of the lead officers from each local authority partner, together with a Natural England representative, the Partnership Chairman, and Vice-Chair. The principal roles and responsibilities of the Officer Support Group are to provide support to the Unit through the Manager and the Partnership Committee, to agree with the Manager the form and content of the agendas for the Partnership Committee meetings and the process through which the decisions of the Partnership Committee will be implemented.

The **AONB Unit**, led by the AONB Manager, is a small team that works on behalf of the Partnership to fulfil its roles as set out above. The Unit is assisted by volunteers including Rangers, practical task volunteers, and Young Rangers. See Appendix 1 for Defra's Core Functions of an AONB Unit.

The Partnership establishes **Working Groups**, as and when required, to provide specialist advice and guidance on issues relating to policy development, the review or delivery of the AONB Management Plan, project development and implementation and any other matter where the Partnership decides that it would be expedient.

Mendip Hills AONB Partnership Committee

Somerset County Council
North Somerset Council
Bath and North East Somerset Council
Mendip District Council
Sedgemoor District Council
Mendip Hills AONB Unit
National Trust
National Farmers Union
Natural England
Somerset Wildlife Trust/Avon Wildlife Trust
Bath and North East Somerset Parishes Representative
North Somerset Parishes Representative
Somerset Parishes Representative
Mendip Society
Campaign to Protect Rural England

For further information on governance, and activity of the AONB Partnership, including annual reviews, and current membership see www.mendiphillsaonb.org.uk

1. The Mendip Hills AONB; Plan and Designation

1.1 Our Vision for the Mendip Hills AONB in 15 years

The vision, linked to the Management Plan themes, sets out the ideal state of the AONB in 15 years' time. It is hoped it will be achieved through the delivery of this Plan and its successors.

1.1.1 The Vision

The Mendip Hills Area of Outstanding Natural Beauty offers a wealth of opportunities for both people and wildlife and cultural heritage to benefit from the nationally protected landscape. The living landscape conserves and enhances natural beauty, supporting the economy, health and wellbeing of our society. We will realise this vision by achieving the following themes;

1.1.2 Landscape Quality

The vision for Landscape Quality is a wide understanding and appreciation of the Mendip Hills as a protected area of distinct character, created over time by the interaction of people and nature. Its ecological, biological, cultural, and scenic value conserved and enhanced.

1.1.3 Biodiversity and Geodiversity

The vision for Biodiversity and Geodiversity is for resilient and coherent ecological networks in place providing bigger, better, and joined up habitats, with no loss of characteristic species. The areas diverse geology is understood and managed for its importance, both to the biodiversity, and ecosystem services that benefit business, people and wildlife.

1.1.4 Historic Environment and Cultural Heritage

The vision for Historic Environment and Cultural Heritage is an enhanced understanding of the AONBs historic environment and cultural heritage, with appropriate management in place to ensure all sites, structures, and landscapes are conserved and enhanced, and local communities, and visitors enjoy a rich experience of sense of place.

1.1.5 Recreation, Access and Tourism

The vision for Recreation, Access and Tourism is a provision for enjoyment by a diverse population, from both within and beyond the AONB boundary, through a wide range of active, and quiet pursuits that the area can sustain. The area will be accessible, regardless of individual mobility, wealth or background.

1.1.6 Natural Resources

The vision for Natural Resources is an integrated land use management that has restored and continues to enhance the areas natural capital including soils, food, and water supply.

1.1.7 Land Management

The vision for Land Management is that as the main land use, agriculture continues to contribute to enhancing landscape character, including ecological networks, and the provision of benefits such as clean water. The area of woodland managed for fuel as well as wildlife, and recreation has increased.

1.1.8 Development and Transport

The vision for Development and Transport is that sustainable development in or near to the Mendip Hills AONB enhances and respects the special qualities of the area, including tranquillity, and contributes to the social and economic needs of the area.

1.1.9 Participation

The vision for Participation is that significant numbers of the local community accessing training and learning to benefit their involvement in the conservation and enhancement of the Mendip Hills AONB, either through direct employment in the rural economy, or as custodians of the landscape, influencing decision makers, or volunteering.

1.2 The Mendip Hills AONB Management Plan

- 1.2.1 The Plan for this nationally designated, protected landscape is overarching of local authority administrative boundaries, and other plans and strategies. It identifies what is necessary to conserve and enhance this special landscape.¹ The Mendip Hills AONB Management Plan is a ‘material’ consideration in determining planning applications, and at appeals.
- 1.2.2 Whilst set in the context of national and local policy, plans, and strategies, the AONB Management Plan seeks to influence these as they evolve and are implemented, to ensure that they include policies to conserve and enhance the AONB and support the aims of the Management Plan.
- 1.2.3 The Plan also has an important role in securing commitment from public bodies, including action to comply with the Countryside and Rights of Way (CROW) Act Section 85 Duty of Regard.
- 1.2.4 The CROW Act 2000 requires relevant local authorities to produce and adopt a plan which ‘formulates policy for the management of the area, and for carrying out their functions in relation to it.’
- 1.2.5 The AONB Partnership, the advisory body for the Mendip Hills AONB produces the Management Plan, on behalf of its local authority partners; Somerset County Council, Bath and North East Somerset Council, North Somerset Council, Mendip District Council and Sedgemoor District Council.
- 1.2.6 The AONB Partnership through engagement with other stakeholders seeks to deliver this Plan through a coordinated annual Delivery Plan of actions, assisted and managed by the AONB Unit.

¹ Paragraph 24 of the NPPF sets out that ‘Local planning authorities and county councils are under a duty to cooperate with each other, and with other prescribed bodies, on strategic matters that cross administrative boundaries’.

- 1.2.7 The Plan sets out what the special qualities of the Mendip Hills AONB are in the Statement of Significance. It has considered current issues and future trends to devise objectives which address these, in order to conserve and enhance the special qualities to achieve the Vision for the Mendip Hills AONB.
- 1.2.8 The Plan's focus is with the designated area but what happens in the countryside adjacent to the boundary, or within view of the AONB is also of significance.
- 1.2.9 This review of the 2014-2019 Management Plan was undertaken in accordance with the Guidance on the review of AONB Management Plans, Countryside Agency (2006). A Strategic Environmental Assessment Screening (SEA), a Habitat Regulation Assessment as required by the European Habitats Directive, and an Equalities Impact Assessment has been undertaken.

1.3 Areas of Outstanding Natural Beauty

- 1.3.1 AONBs and National Parks were brought into being by the 1949 National Parks and Access to the Countryside Act, and have the same status, and level of protection. AONBs are particularly special landscapes, whose distinctive character and natural beauty are so outstanding that it is in the nation's interest to safeguard them.

The primary purpose of AONB designation is to conserve and enhance natural beauty.

In pursuing the primary purpose, account should be taken of the needs of agriculture, forestry, other rural industries, and of the economic and social needs of local communities. Particular regard should be paid to promoting sustainable forms of social and economic development, that in themselves conserve and enhance the environment.

Recreation is not an objective of designation, but the demand for recreation should be met so far as this is consistent with the conservation of natural beauty, and the needs of agriculture, forestry, and other uses. *Reference: Countryside Commission CCP356 (1991)*

- 1.3.2 **'Natural beauty'** includes flora, fauna, geological and physiographic features. These aspects of natural beauty are key components of the landscape. However, landscape is also about tranquillity, the dark skies, the relationship between people and place, the interaction between nature and culture. It is therefore very important that the cultural dimension of the landscape, including the historical, intellectual and spiritual elements as well as the physical human shaping of the land is fully recognized.
- 1.3.3 Further to this the **European Landscape Convention** (ratified by the UK Government in 2006) states 'as a reflection of European identity and diversity, the landscape is our living

natural and cultural heritage, be it ordinary or outstanding, urban or rural, on land or in water.’

- 1.3.4 The **Countryside and Rights of Way (CROW) Act 2000** confirmed the significance of AONBs. Section 85 places a statutory (legal) duty on all relevant authorities to have regard to the purpose of conserving and enhancing natural beauty when discharging any function in relation to or affecting land within an Area of Outstanding Natural Beauty.
- 1.3.5 The **International Union for Conservation of Nature (IUCN)** designates the UK’s AONBs as Category V – Protected Landscape/seascape – ‘a protected area where the interaction of people and nature over time has produced an area of distinct character with significant ecological, biological, cultural and scenic value’.
- 1.3.6 More information on AONBs and their status and protection can be found on the following websites:
Mendip Hills AONB (www.mendiphillsaonb.org.uk)
Defra (www.defra.gov.uk)
Natural England (www.naturalengland.org.uk)

1.4 Statement of Significance - The AONBs Special Qualities

Rising from the Somerset Levels are the distinctive Mendip Hills, that with the lakes of Chew Valley and Blagdon, form the 198sq kms that is the Mendip Hills AONB. The special qualities that together create the Mendip Hills AONB sense of place and identity are:

- The dark skies, tranquillity², sense of remoteness, and naturalness of the area.
- The distinctive limestone ridges and scarp slopes, rising from the Somerset Levels and Moors, and windswept plateau punctuated by spectacular dry valleys and gorges, ancient sinkholes and depressions, and impressive rocky outcrops.
- Views towards the Mendip Hills and the distinctive hill line. The views out, and panoramas, including across the Severn Estuary to Wales, the Somerset Levels and Moors, and the Somerset Coast.
- A sparsely populated plateau, with settlements of Mendip stone largely confined to the spring line.
- The diverse and visible geology that ranges from Devonian to Jurassic in a relatively small area, making it one of the best areas in the country to

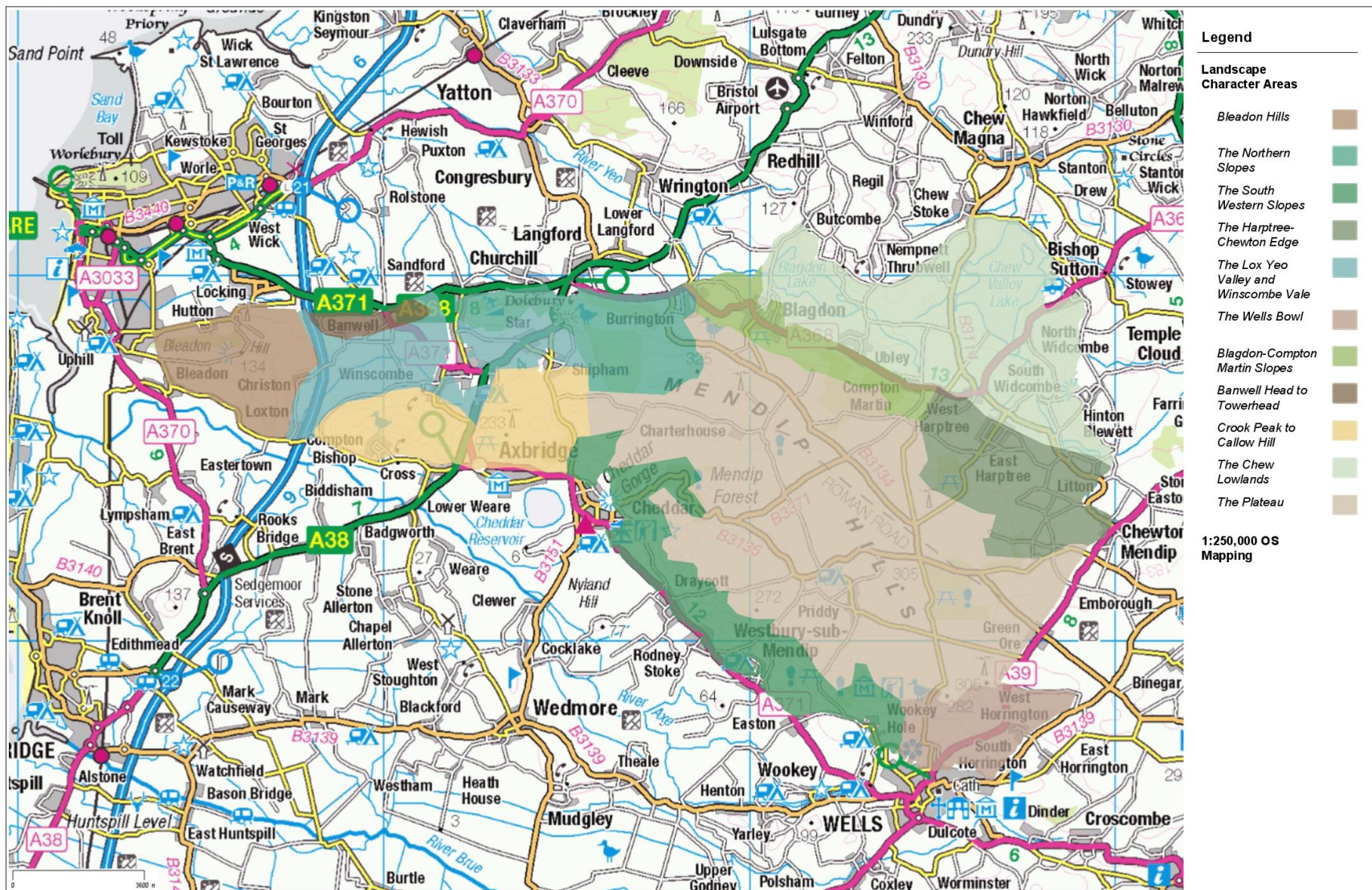
² Guidelines for Landscape and Visual Impact Assessment (GLVIA) (LI and IEMA 2013) define tranquillity as ‘a state of calm and quietude associated with peace, considered to be a significant asset of landscape’.
Information on tranquillity can also be found in the Landscape Institute Technical Information Note 01/2017.

appreciate the relationships between geology, landscape, and natural history, including the iconic Cheddar Gorge.

- Caves, for their wildlife, geological, archaeological importance, including Aveline's Hole the oldest cemetery site in Britain, and Goughs Cave one of the most important Palaeolithic sites in Europe that provides a breeding site for Lesser and Greater Horseshoe bats.
- The limestone aquifer supplying water to the reservoirs of Cheddar, Chew Valley, and Blagdon lakes, and providing habitats of local and international importance for birds with Chew Valley Lake designated a Special Protection Area for bird species.
- The Chew Valley and the Yeo Valley - a farmed landscape with distinctive hedgerow patterns and hedgerow trees, providing interconnected semi-natural habitats.
- Dry stone walls that criss-cross the plateau farmlands grazed by sheep, beef and dairy cattle, are a key feature of the karst landscape and provide a unique habitat for wildlife corridors.
- Steep south-facing slopes of flower rich, limestone grasslands, including the Mendip Limestone Grasslands Special Area of Conservation, and the area known as the Strawberry Belt of horticultural activity producing soft fruits.
- Ancient woodland and wooded combes on the north and south slopes offering varied habitats of national, and international importance for a wide diversity of wildlife, including dormouse and bats.
- A landscape tracing human settlement dating back 500,000 years. Henge monuments, barrows, and hillforts through to World War 2 sites are prominent features on the plateau, as are remnants of Roman and Victorian lead mining.
- A landscape engaging people in a wide range of interests and outdoor pursuits, including caving, climbing, cycling, horse-riding and quieter activities, including bird watching and walking, to experience the special qualities of the Mendip Hills AONB.

Particular combinations of these special qualities form **11 distinctive landscape areas identified in the Mendip Hills AONB Landscape Assessment (1998)**

Landscape Assessment (1998)



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1.5 The Benefits of the Mendip Hills AONB to Society

- 1.5.1 A healthy, properly functioning natural environment is the foundation of sustained economic growth, prospering communities and personal wellbeing. The Mendip Hills AONB has a wealth of natural capital³ and the benefits we get from the AONB's attributes and processes (both natural and cultural features) are often described as 'ecosystem services'.
- 1.5.2 Taking account of all the economic and non-economic benefits we get from ecosystem services enables decision makers to exercise judgement about how we use our environment. Such an approach is often called an 'ecosystems approach'. In all considerations, it is important that decisions value the natural capital and ecosystem services of the Mendip Hills AONB to the economy.
- 1.5.3 Ecosystem services include provisioning, regulating, cultural and supporting services. Table 1, page 14 and 15 highlights some of the Mendip Hills AONB Ecosystem Services that are provided nationally, regionally, and locally. Services of national importance reflect the special qualities (page 10 and 11) of the nationally protected landscape. The Mendip Hills AONB's natural capital and ecosystem services it provides are supported through objectives in this Plan.

³ Natural capital can be defined as the stock of our physical natural assets (such as soil, forests, water and biodiversity) which provide flows of services that benefit people (such as pollinating crops, natural hazard protection, climate regulation or the mental health benefits of a walk in the park).

Table 1 Mendip Hills AONB Ecosystem Services

Services identified form part of the previous plan, cross referenced with the four categories identified by the UK National Ecosystem Assessment.

Provisioning services
- Water supply The entire area lies over an important Carboniferous Limestone aquifer which is designated as a Major Aquifer Unit, making a major contribution to public water supply, and supplying Bristol, and the surrounding area via Cheddar, Blagdon, and Chew Valley reservoirs. The Mendip aquifer also supplies the hot springs in Bath.
- Food Cheddar has a long tradition of, and is internationally associated with, cheese production. Dairying is prevalent on the plateau, including national food producers. Cider apples are grown commercially in the Wrington Vale, and in community orchards on the northern edge of the AONB.
- Timber Foresters in the AONB produce timber in extensive plantations, smaller-scale timber harvests come from farm woodlands.
- Fuel Woodlands, including small farm woodlands, provide fuel.
- Genetic diversity Local livestock breeds help maintain genetic diversity.
Regulating services
- Water flow and flood risk Most of the AONB is within a Groundwater Source Protection Zone due to its contribution to public water supply. Groundwater quality is generally good. The ecological quality of the emergent rivers is largely moderate. Parts of the Mendip Hills fall within the Congresbury Yeo catchment, part of the North Somerset Moors Catchment Sensitive Farming Priority Catchment.
- Disease and pest regulation Healthy and diverse ecosystems are less vulnerable to pests and disease and can help regulate them.
- Pollination Pollination of crops is important for food supply – healthy ecosystems such as lowland heath and flower meadows, support this service.
- Climate regulation and carbon storage The commercial forestry plantations and wooded combs, plus the heathland store large amounts of carbon.
Cultural services
- Cultural heritage and historic environment The history of the landscape is evident ranging from prehistoric settlement and activity to World War 2 archaeology. The prehistoric henges of Gorsey Bigbury and Priddy Circles, form in combination with over 300 Bronze Age barrows, a ritual landscape of national significance. Large hill forts from the Iron Age, such as Dolebury, and smaller sites such as Banwell, are evidence of a complex pattern of territories and lordship. Quarries and pitted landscapes are evidence of lead mining and other extraction activity, some of which continues today. Field patterns reflect the various histories of enclosure and settlement.
- Spiritual values The AONB's landscapes and tranquillity provide spiritual inspiration and enrichment from nature for many people.
- Aesthetic values

Due to the height contrast between the surrounding levels, the AONB is renowned for the views it provides.
- Sense of place The distinctive landform provides residents and visitors with a sense of place, and cultural heritage.
- Education The Mendip Hills have a long tradition of providing outdoor adventure and education activities, formally at locations like Charterhouse Centre, visiting groups and Duke of Edinburgh Awards.
- Recreation and tourism The Mendip Hills are accessible to the large populations of Bristol, Bath and Weston-super-Mare, and the smaller surrounding settlements. Access to the outdoors is fundamental to promoting healthier lifestyles. Tourism is important to the local economy, Wookey Hole and Cheddar Gorge drawing in large numbers of visitors. Caving, climbing, cycling, and walking are also popular activities.
Supporting services
- Wildlife / biodiversity There are 27 Sites of Special Scientific Interest (SSSI) covering 2721 ha, 3 Special Area of Conservation (SAC), 1 Special Protection Area (SPA), and 2 National Nature Reserves within the Mendip Hills AONB. Ash woodland and calcareous grasslands are internationally designated, and also sites for greater horseshoe bats.
- Soil The vast majority of soils covering the Mendip Hills are at risk of erosion where poor management could result in loss of stabilising vegetation. This is exacerbated by the steep slopes, and high precipitation. Sustainable systems of arable cultivation, and appropriate levels of livestock to reduce poaching, and soil exposure, particularly on steeper slopes are encouraged.
- Nutrient cycling Plants, animals, and micro-organisms play a crucial role in the cycling of nutrients essential for the delivery of ecosystem benefits.

2. Drivers for Change

The Mendip Hills AONB Management Plan needs to take account of the wider environment in which it operates, see Appendix 2 for additional information on drivers for change.

2.1 Leaving the European Union

Leaving the European Union will potentially change many aspects of agriculture, from produce markets to agri-environment schemes. Much of the UK's environmental regulation and statutory protection is also bound-up in EU legislation, and in this respect the effect of Brexit in the medium and longer term is unpredictable but will become under our control. Protecting the landscape character of the Mendip Hills AONB within the ever-changing pressures on farming and the rural economy is a challenge, however, new farm payment systems provide opportunities to improve conservation, access, and encourage public understanding. The AONB Management Plan should be linked to decisions around farm payments. The 2018 Agriculture Bill and forthcoming Environment Act will further shape delivery of the AONB Management Plan.

2.2 Development

Growth of the settlements in the setting of, and adjacent to the North Somerset boundary could impact on the special qualities of the AONB. Axbridge, Cheddar and Wells, along the southern boundary also face significant development pressure. Increased traffic levels, and visitor numbers could also have a serious impact within the AONB.

2.3 Population Increase

Of the 28 parishes wholly, or partly in the AONB, 17 had a population increase between the 2001 and 2011 census.⁴ Local increases are also mirrored by national growth in population. Public benefit through enjoyment of the hills is a significant objective of this Plan. Carefully managed access to attractive countryside, particularly walking, cycling, horse-riding and rock-sports brings physical and mental health benefits, enabling people to enjoy a beautiful landscape, reconnect with nature, and provide support to the local economy. Inappropriate levels, or types of activity can however impact on the natural capital, particularly landscape beauty, tranquillity, and biodiversity, of the AONB reducing others' ability to enjoy, and benefit from the area.

2.4 Administration

Since the last Management Plan there have been substantial developments relating to the governance arrangements in North Somerset, and B&NES that impact on the Mendip Hills AONB. The West of England Combined Authority (WECA) was established in 2017 and is made up of three of the local authorities, Bath & North East Somerset, Bristol, and South Gloucestershire. The combined

⁴ State of the Mendip Hills AONB Report 2018

authority works with partners including the West of England Local Enterprise Partnership, and North Somerset Council through the West of England Joint Committee, to deliver economic growth for the region and address some of the areas challenges, such as productivity and skills, housing, and transport. This authority is also producing a Green Infrastructure Plan. The challenges all impact on the Mendip Hills AONB, and through engagement with the various committees, and through elected members, we aim to keep rural issues, communities, the landscape, and the economy on the agenda of these bodies, and to ensure adequate, and suitable funding streams, and services can be accessed across the AONB area.

Local Enterprise Partnerships (LEPs) are voluntary partnerships between local authorities and businesses set up in 2011 by the Department for Business, Innovation and Skills to help determine local economic priorities and lead economic growth and job creation within the local area. The Mendip Hills AONB is covered by two LEPs, West of England and Heart of the South West. <http://westofenglandlep.co.uk/> and <https://heartofswlep.co.uk>

2.5 Climate Change

There is broad scientific consensus that the global climate is changing. However, the precise nature of these changes, and the consequent impacts on the special features of the AONB is complex and uncertain. Under climate change the Mendip Hills are likely to get warmer; summers will continue to get hotter and drier, and winters will continue to get milder and wetter, with inevitable exceptions.

Climate change is likely to result in periods of heavy rain that may cause more frequent flood events from surface runoff, increased flooding of settlements at the foot of the hills, rock fall, soil erosion, and associated impacts on water quality. Increased carbon dioxide, and a longer growing season could potentially lead to double cropping with impacts on soil condition due to increased cultivation. There may be potential for growing different crops suited to a warmer climate. Increasing occurrences of droughts would lead to increases in water demand for crop growth, business, and domestic use, and drying out, and erosion of soils.

Increased storminess, drought, and prevalence of pest and diseases, for example Oak decline or dieback, may result in damage or loss of ancient woodlands and mature, ancient, and veteran trees, especially parkland trees. Changes to seasonal temperature and rainfall could begin to change tree productivity. Tree provenance of native species will become more important. Species migration, and loss of small, or isolated habitats, and populations are likely. Composition and productivity of habitats will change and require management.

Climate change poses threats to the historic environment. Intense rainfall causes erosion of archaeological sites, and increased extremes of soaking and drying heighten risk of ground subsidence and accelerate the decay of stone work. Changes in vegetation patterns may cover and damage archaeological remains, and leave others exposed and desiccated.

Mitigating climate change through development of renewable energy and new build is likely to present challenges to conserving landscape character. Whilst

every building should strive to reduce its carbon footprint, mitigation should not be at the expense of the surrounding landscape, and traditional buildings. The embodied energy contained within historic buildings should also be acknowledged in any energy efficient proposals.

2.6 National Association for AONBs - shared objectives

The National Association for Areas of Outstanding Natural Beauty (NAAONB) is the voice of the AONB partnerships in England, Wales and Northern Ireland, and represents those involved in the planning, and management of 8000 square miles of the UK's finest landscapes. Many different organisations and individuals contribute to fulfilling the primary purpose of AONB designation - conservation and enhancement of natural beauty, alongside the staff teams dedicated to each AONB. The Mendip Hills AONB Partnership, as a member of the NAAONB has signed up to four common objectives:

- Conserve and enhance the natural and cultural heritage of the UK's Areas of Outstanding Natural Beauty, ensuring they can meet the challenges of the future.
- Support the economic and social wellbeing of local communities in ways which contribute to the conservation, and enhancement of natural beauty.
- Promote public understanding and enjoyment of the nature and culture of Areas of Outstanding Natural Beauty and encourage people to take action for their conservation.
- Value, sustain, and promote the benefits that the UK's Areas of Outstanding Natural Beauty provide for society, including clean air and water, food, carbon storage, and other services vital to the nation's health and wellbeing.

The National Association for AONBs provides a coordinating and advisory role for AONBs in responding to, and influencing policy, and has been actively engaged in the following Government reports, policy and legislation that will influence future management of all AONBs.

2.7 25 Year Environment Plan - A Green Future: Our 25 Year Plan to Improve the Environment DEFRA (January 2018)

The Plan sets out a long-term approach to protecting and enhancing a variety of natural landscapes and habitats, with goals of cleaner air and water, plants and animals which are thriving, and a cleaner, greener environment. The first line outlines the vision, "It is this Government's ambition to leave our environment in a better state than we found it".

The 25 Year Environment Plan includes, on page 65, that 'Some of England's most beautiful landscapes and geodiversity are protected via a range of designations including National Parks and Area of Outstanding Natural Beauty (AONBs)... Over the next 25 years we want to make sure they are not only

conserved but enhanced’.

The Plan further sets out, on page 56 and 57, that ‘In England, a quarter of our landscape is designated in this way, around 10% as National Parks and 15% as AONBs. We will make sure they continue to be conserved and enhanced, while recognising that they are living landscapes that support rural communities... While development is not prohibited in National Parks or AONBs, major development should take place only in exceptional circumstances’.

The Plan also seeks to embed a ‘net environmental gain’ principle for development to deliver environmental improvements locally and nationally.

2.8 National Planning Policy Framework (NPPF) 2018

The National Planning Policy Framework 2018 (NPPF) sets out the Government’s planning policies for England, and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced.

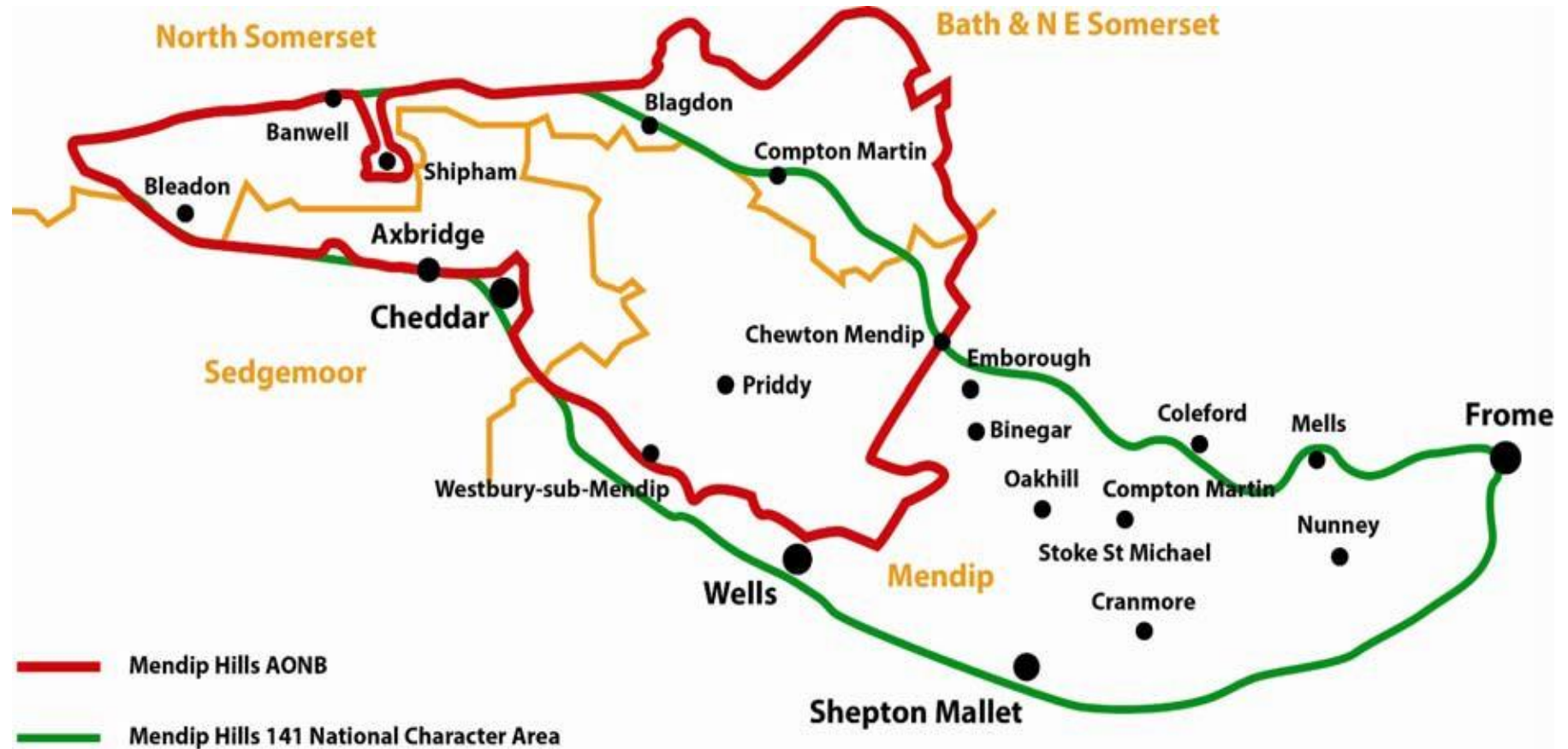
Paragraph 172 of the NPPF sets out that ‘Great weight should be given to conserving, and enhancing landscape and scenic beauty in National Parks, the Broads, and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas and should be given great weight in National Parks and the Broads. The scale and extent of development within these designated areas should be limited. Planning permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest...’

2.9 Natural England National Character Areas (NCA)

Natural England has produced National Character Areas profile documents for each of the 159 NCAs in England. NCA 141 Mendip Hills covers most of the AONB except for the Chew Valley and Blagdon Lakes which are covered by NCA 118 Bristol, Avon Valleys and Ridges.

The NCA profile for the Mendip Hills (141) highlights that the area is ‘renowned for its tranquillity and inspirational qualities ...’ and recognises that ‘Light pollution from development threatens the extent of the recognised dark skies and out-of-character development is a continuing risk to the essential nature of the area.’ Within the NCA Statement of Environmental Opportunity under SEO1 it set out ‘Safeguard inward and outward views and to the distinctive hill line and conserve and enhance the special qualities, tranquillity, sense of remoteness and naturalness of the area’.

The NCA profile for Bristol, Avon Valleys and Ridges (118) highlights that to the south of Bristol, ‘the land fall to the Yeo and Chew valleys, where Chew and Blagdon lakes, within the Mendip Hills AONB, are prominent features near the foot of the Mendip scarp. These lakes also provide a valuable source of drinking water and are designated as Drinking Water Protected Areas under the Water Framework Directive.



3. AONB Management Plan themes

- 3.1 To achieve the vision for the Mendip Hills AONB, the Partnership and stakeholders have set out objectives under 8 themes. Although there are objectives for each theme, the Plan should be taken in its entirety, and recognise the relationship between themes and ecosystem services as shown on Table 1, page 14 and 15. The themes and their objectives are not in any order of priority. As a reminder the vision and themes to be delivered are below. Progress on this work is reported to the Officer Support Group and the Partnership.

3.1.1 The Vision

The Mendip Hills Area of Outstanding Natural Beauty offers a wealth of opportunities for both people and wildlife to benefit from the nationally protected landscape. The living landscape conserves and enhances natural beauty, supporting the economy, health and wellbeing of our society.

Landscape Quality

The vision for Landscape Quality is a wide understanding and appreciation of the Mendip Hills as a protected area of distinct character, created over time by the interaction of people and nature. Its ecological, biological, cultural, and scenic value conserved and enhanced.

Biodiversity and Geodiversity

The vision for Biodiversity and Geodiversity is for resilient and coherent ecological networks in place providing bigger, better, and joined up habitats, with no loss of characteristic species. The area's diverse geology is understood and managed for its importance, both to the biodiversity, and ecosystem services that benefit business, people and wildlife.

Historic Environment and Cultural Heritage

The vision for Historic Environment and Cultural Heritage is an enhanced understanding of the AONBs historic environment and cultural heritage, with appropriate management in place to ensure all sites, structures, and landscapes are conserved and enhanced, and local communities, and visitors enjoy a rich experience of sense of place.

Recreation, Access and Tourism

The vision for Recreation, Access and Tourism is a provision for enjoyment by a diverse population, from both within and beyond the AONB boundary, through a wide range of active, and quiet pursuits that the area can sustain. The area will be accessible, regardless of individual mobility, wealth or background.

Natural Resources

The vision for Natural Resources is an integrated land use management that has restored and continues to enhance the areas natural capital including soils, food, and water supply.

Land Management

The vision for Land Management is that as the main land use, agriculture continues to contribute to enhancing landscape character, including ecological networks, and the provision of benefits such as clean water. The area of woodland managed for fuel as well as wildlife, and recreation has increased.

Development and Transport

The vision for Development and Transport is that sustainable development in or near to the Mendip Hills AONB enhances and respects the special qualities of the area, including tranquillity, and contributes to the social and economic needs of the area.

Participation

The vision for Participation is that significant numbers of the local community accessing training and learning to benefit their involvement in the conservation and enhancement of the Mendip Hills AONB, either through direct employment in the rural economy, or as custodians of the landscape, influencing decision makers, or volunteering.

3.2 Landscape Quality

Landscape Quality Objectives:

L1 Promote appropriate management to ensure that the distinctive Mendip Hills AONB landscape is conserved and enhanced.

L2 Provide opportunities to acquire and develop skills required to care for and promote the landscape and its special qualities.

L3 Increase awareness and appreciation of the purposes of designation and the special qualities of the AONB.

L4 Increase awareness of the benefits of supporting local products and services that help conserve and enhance the landscape.

Indicators (data provider):

% of land managed under higher level agri-environment schemes and uptake of Environmental Stewardship options (NE)

% of area that is tranquil (NE)

- 3.2.1 The Carboniferous Limestone that underlies much of the Mendip ridge has given the area its distinctive landscape of rolling hills, gorges, lines of dry stone walls, and attractive stone, settlements on the spring line. The area has a tangible sense of tranquillity and remoteness that are highly valued by those who choose to live here and the many visitors. At the highest points, such as Black Down, areas of sandstone covered by heathland contrast with the limestone grassland and give variety to the landscape. Views out from the edge of the plateau and slopes are widely appreciated.

- 3.2.2 The gentler landscape of Chew Valley adds a further dimension. The two reservoirs of Blagdon Lake (built 1899) and Chew Valley Lake (built 1956), provide large expanses of water, set within a rich farmland landscape. The landscape has been strongly influenced by the activities of man from prehistoric times to the present. The plateau is rich in the remains of Bronze Age, Iron Age, and Roman activity, including lead mining and dry stone walls, mostly dating from the 18th and 19th century. Both farming and quarrying continue to change the landscape.
- 3.2.3 The Mendip Hills AONB Landscape Assessment (Countryside Commission 1998) identified 11 distinctive character areas (see map, page 12). Consideration of the landscape needs to take account of the special qualities that make each of these character areas.
- 3.2.4 In addition to this Natural England National Character Area profiles that cover the AONB (see 2.9), 141 Mendip Hills and 118 Bristol, Avon Valley and Ridges, need to be considered. Each profile includes a description of the natural and cultural features that shape these landscapes, current drivers for change, and as working documents they draw on current evidence and knowledge of these landscapes.

Issues

- 3.2.5 There are many factors changing and bringing pressure on the Mendip Hills AONB landscape. Covered under other themes these include development pressures, changes in agriculture, increase in road traffic and recreation, loss of dark sky, and the loss of landscape detail such as gruffy ground (remnants of shallow lead mining), rock outcrops, and field boundaries. These need to be managed within and near the AONB boundary, to ensure that the essential character and its setting is conserved and enhanced.

3.3 Biodiversity and Geodiversity

Biodiversity and Geodiversity Objectives:

BG1 Ensure that there is no net loss of characteristic habitats and species.

BG2 Promote a landscape scale approach to the conservation and enhancement of ecological networks within and adjoining the AONB.

BG3 Increase monitoring and awareness of the biodiversity resource of the Mendip Hills AONB so that it is sufficiently understood to continue to guide the successful conservation of the characteristic habitats and species.

BG4 Promote a holistic approach to implementing AONB Management Plan objectives and National Character Area Statements of Opportunity.

BG5 Recognise and celebrate geological sites and features of the Mendip Hills AONB to ensure the successful conservation both of the geology and wildlife

habitat they provide.

BG6 Increase awareness of the Mendip Hills geology, particularly cave systems in relation to the importance they play in water management and water supply.

Indicators (data provider)

% of SSSIs in favourable/recovering condition (NE)

% of geological SSSIs units in favourable/recovering condition (NE)

Condition of broad habitats (NE)

- 3.3.1 Geology, soil type, as well as human influences such as agriculture and mining, have resulted in the Mendip Hills distinctive landscape features, and give rise to the variety of habitats, and their dependent flora and fauna.
- 3.3.2 Over millennia, humans have reduced the cover of woodlands, creating open habitats such as grassland. Land enclosures enabled farmers to create more agriculturally productive grasslands from heathland. In the more recent past, technological innovations have enabled significantly increased agricultural yields of grassland, which has also changed the character of grassland habitats. Species rich grassland habitats are now increasingly rare and only occur where low intensity management takes place, and on inaccessible areas difficult to plough.
- 3.3.3 Habitats of importance in the Mendip Hills are heathland, acid grassland, calcareous grassland, neutral grassland (meadows), calaminarian grassland (occur on lead mined spoil heaps), purple moor grass, and semi-natural ancient woodland with typical Mendip species, ash and lime.
- 3.3.4 The spoil heaps from lead mining provide distinctive Mendip habitats due to the high levels of lead, cadmium, and zinc that are toxic to most plants. These metal rich habitats contain species such as spring sandwort, alpine penny cress and sheep's-fescue.
- 3.3.5 Limestone crags and cliff faces are home to many plant species including the rare and protected Cheddar pink (the flower of Somerset) in Cheddar Gorge. The thin limestone soils support grassland insects and invertebrates. Many of the caves are roosting and hibernation sites for bats.
- 3.3.6 The Mendip Hills AONB contains many sites designated for their biodiversity, including the European designations:
 - Chew Valley Lake Special Protection Area (SPA)
 - North Somerset and Mendip Bats Special Area of Conservation (SAC)
 - Mendip Limestone Grassland Special Area of Conservation (SAC)
 - Mendip Woodlands Special Area of Conservation (SAC)

that includes the National Nature Reserves (NNR) of Rodney Stoke and Ebbor Gorge

- 3.3.7 There are also 27 Sites of Special Scientific Interest (SSSI) designated for their national importance. 96% of the 2712 ha designated SSSI is in favourable, or unfavourable and recovering condition. Local Wildlife Sites act as buffers, stepping stones, and corridors for these nationally designated wildlife sites.
- 3.3.8 Section 41 of the Natural Environment & Rural Communities Act 2006 list of species of principle importance⁵ found in England identified as requiring action under the UK Biodiversity Action Plan continues to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.⁶ A significant number of these are found in the designated sites listed in 3.3.6.
- 3.3.9 The area is noted for its geodiversity, with a large range of rock types ranging from Devonian to Jurassic exposed in many natural rock outcrops and quarries.
- 3.3.10 Carboniferous limestone has created the Mendip karst landscape, a terrain formed as percolating rainwater dissolves the rock, forming gorges, depressions, underground drainage and caves. Streams emerge at the foot of the hills where the limestone meets less permeable rock. Many of the geological features are designated SSSI and or Local Geological Sites.
- 3.3.11 The 'Netherworld' of the Mendips is significant and cave exploration is ongoing. In 2012 the largest Mendip cave was discovered, which has some of the best stalactites and stalagmites in the UK.
- 3.3.12 The British Geological Survey (www.bgs.ac.uk/mendips) and Mendip Cave Registry and Archive (www.mcra.org.uk) are sources of information. Mendip quarry companies have invested in proactive relationships with the public, offering opportunities to visit, and the Somerset Earth Science Centre at Moon Hill Quarry has initiated and partners several geology related projects, including Mendip Rocks and Quarry Faces in the AONB, that promote research and learning.
- 3.3.13 Protected landscapes have been identified to deliver more resilient and coherent ecological networks, healthy and well-functioning ecosystems which deliver multiple benefits for people and wildlife. Building the resilience of ecological networks will enable the ecological network to respond to climate change.
- 3.3.14 Work to understand the current state of the network has been

⁵ www.naturalengland.org.uk

⁶ http://jncc.defra.gov.uk/pdf/UKFramework_RevisedImpPlan_201807.pdf

ongoing for some years with support from the AONB Partnership. Somerset Wildlife Trust continues to map distribution of all remaining habitats in the Mendip Hills National Character Area (NCA). Ecological network maps are updated on an annual basis and will continue to be refined as survey reveals new areas of priority habitat.

Priority restoration areas within the ecological networks have been identified and work is currently being targeted in these areas to build coherence and resilience of the networks. This includes targeting management advice and Environmental Land Management schemes and other public investment in the most efficient and effective way to deliver multiple public benefits including biodiversity.

- 3.3.15 In addition, the Plan will assist local authority's duty under the NPPF which sets out that to protect and enhance biodiversity plans should 'Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity, wildlife corridors, and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation'. (See 2.8 Drivers for Change and 3.8 Development and Transport)

Issues

- 3.3.16 The pressing issue for biodiversity and geodiversity is loss of ecological network and geological features, condition and fragmentation of habitats, due to changes in land use including energy crops, intensification of agriculture, new development, and less resources for management.
- 3.3.17 There is a need to understand and recognise the geological importance of cave systems for their geological, and biodiversity importance. Caves need to be protected from damage by land use e.g. pollutants in water run-off, broken sewage pipes, soil erosion, tipping and infilling of swallets, and inappropriate recreational use, and where use disturbs roosting bats.
- 3.3.18 Cave systems needs to be better understood with regard to water flow and water supply (See 3.6 Natural Resources), as was shown in Cheddar when sink holes became blocked, and flood waters washed away part of the road through Cheddar Gorge.

3.4 Historic Environment and Cultural Heritage

Historic Environment and Cultural Heritage objectives:

H1 Improve the recording, interpretation and understanding of all aspects of the AONBs historic environment to ensure local communities and visitors enjoy a rich experience of the sense of place.

H2 Increase awareness and communicate the significance of the high quality historic environment of the Mendip Hills AONB.

H3 Promote appropriate management of sites, structures and landscapes designated for their international, national, regional or local importance in the historic environment to ensure no further loss of heritage assets.

Indicators (data provider):

% of Scheduled Monuments in favourable condition and at risk (HE)

Number of listed and unlisted buildings at risk (HE)

Conservation Areas at risk (HE)

- 3.4.1 AONB designation recognises the importance of heritage and reinforces the need to protect and manage characteristic features. The Mendip Hills have evidence of human settlement dating back to Palaeolithic times, 500,000 years ago. Henge monuments, barrows, and hill forts on the plateau are some of the most prominent features of the area. The historical value of the area is incredibly rich, and important and includes 198 Listed Buildings and 169 Scheduled Monuments. Interest and participation in this subject is high, leading to previously unrecorded sites and features being recorded.
- 3.4.2 Customs and traditions that have historic and cultural associations with the land, and activities of local people, are important too. This includes Mendip cave exploration begun in the late nineteenth century, the Rock of Ages service which marks the origin of the famous hymn, the hedging and ploughing matches promoting rural skills, village strawberry fairs, and a more recent tradition, Blagdon Pumping Station Sunday open days. There are very few weekends when there is not an event happening in the Mendip Hills that is not custom, or tradition related and demonstrates community engagement with their heritage.
- 3.4.3 The Historic Landscape of the Mendip Hills by Elaine Jamieson was published in July 2015 and brings together a wide variety of new and past research on the historic landscapes of the Mendip Hills. The publication presents a synthesis of the results of recent fieldwork undertaken by Historic England and traces this region's past, revealing ways in which it has shaped the landscape we see and value today.
- 3.4.4 Historic England have produced Lidar data for the Mendip Hills AONB and this is available on the website (<https://historicengland.org.uk/research/methods/airborne-remote-sensing/lidar/>). In 2012 the AONB local authorities, with support from the AONB Partnership, digitised the areas Tithe Maps to make them accessible to assist understanding of the landscape.
- 3.4.5 Somerset County Council published the South West Archaeological Research Framework (2008) which presents the

Resource Assessment and a Research Agenda for archaeology in South West England. The project resulted in a Research Strategy 2012-2017 to provide a structure in which to make decisions about future archaeological research. It is now due to be reviewed and it is likely that a revised version will be prepared.

- 3.4.6 The South West Heritage Trust was founded in 2014 as an independent charity for Somerset, Devon and the South West. They celebrate and protect the heritage, helping people to enjoy it now and in the future. They bring together services previously provided by Somerset and Devon County Councils, who remain their main funders.
- 3.4.7 The annual Mendip Rocks! programme of events raise awareness of the geology and archaeology of the Mendip Hills. This is a joint project between the AONB Partnership, Somerset Earth Science Centre and the Mendip Society.
- 3.4.8 Neighbourhood Plans are important tools for identifying and raising awareness of characteristic features. Together with Historic Landscape Character Assessments they contribute to the planning decision-making process.

Issues

- 3.4.9 Dry stone walls are unprotected, dependent on individual landowners to maintain and restore them. Whilst several significant walls have been repaired, reduced agri-environment funding for wall restoration has resulted in a decline in activity.
- 3.4.10 Ploughing, and other agricultural practices continue to damage and threaten sites including gruffy ground, a remnant of mining activity. Lack of grazing has resulted in an increase in scrub, and some sites being obscured from view, and suffering damage from tree roots. Burrowing animals, recreational use of sites, and new development also threaten the historic environment and individual sites.
- 3.4.11 Climate change poses particular threats to the historic environment. Intense rainfall causes erosion of archaeological sites, and increased extremes of soaking and drying heighten risk of ground subsidence and accelerate the decay of stone work. Changes in vegetation patterns may cover and damage archaeological remains. An area experiencing many of these issues is Burrington Commons. In 2011 an Archaeological Management Plan was produced for this area and used in the successful bid to Heritage Lottery Fund for the Discovering Black Down project that started May 2013.
- 3.4.12 Active promotion, and guidance for communities on how to access and use sources of historical information is required if historic landscape character is to influence planning decisions, and management of sites.

3.5 Recreation, Access and Tourism

Recreation, Access and Tourism objectives:

R1 Maintain, improve and promote public access and quiet recreational activities with measures to ensure access for all in accordance with the purposes of AONB designation.

R2 Support the development of tourism that benefits the local economy, conserves and enhances the landscape and improves understanding of the Mendip Hills.

R3 Develop and promote more sustainable methods of travel to and around the AONB for enjoyment and recreation.

R4 Support healthy lifestyles by encouraging more people to use the Mendip Hills for sustainable outdoor activities.

Indicators (data provider);
%employed in tourism (Defra)
% of AONB accessible (NE)
Length of Public Rights of Way (NE)

- 3.5.1 The AONB landscape is a resource to be enjoyed by all sectors of our diverse society, for active, and quieter recreational pursuits. Outdoor recreation is proved to benefit people's health and wellbeing through exercise, and opportunities to escape the pressure of everyday life. Being within a 30 minute drive from Bristol, Weston Super Mare, and Bath, the Mendip Hills AONB is accessible to these urban populations, as well as the local rural communities.
- 3.5.2 Walking, cycling and horse-riding are popular activities, with several well known recreational routes across the AONB including the Strawberry Line (National cycle route 26), Limestone Link, The Mendip Way, Monarchs Way, and West Country Way (National Cycle Route 3). The Mendip Hills AONB are also visited for their historical interest, and for the wild and tranquil areas that provide opportunity for quiet enjoyment including bird watching.
- 3.5.3 Most visitors to the Mendip Hills AONB are day visitors, but tourism is increasingly an important part of the local economy as farmers diversify providing holiday accommodation and rural facilities (shops, pubs, public transport) that need to attract additional business to survive. Growing interest in green tourism has potential to create new employment opportunities.
- 3.5.4 Organised outdoor activities are an important part of the Mendip Hills rural economy bringing in nearly £6 million directly to outdoor businesses, with those businesses spending £1.46

million⁷ locally. There are a significant number of businesses who use the Mendip Hills for outdoor activities that includes climbing, caving, abseiling, bushcraft, archery, horse-riding and mountain biking. In 2017 the National Trust held the South West Outdoor Festival on land above Cheddar Gorge that celebrates the Mendip Hills as a destination for outdoor adventure. This has now become an annual event called the Top of the Gorge festival and in 2018 attracted 2000 people.

- 3.5.5 Cheddar Caves and Gorge, Wookey Hole Caves, and Bristol Water's Chew Valley and Blagdon lakes are major tourist attractions, making significant contributions to the rural economy.
- 3.5.6 There are opportunities within the Mendip Hills to increase the average spend of visitors, and develop products and packages having a high quality landscape to support them. The Mendip Way is a good example of partners working together to do practical improvements along the route then promote it nationally to draw in overnight visitors and experience the special qualities of the area.
- 3.5.7 The provision of information, and interpretation, can increase understanding and enjoyment of the Mendip Hills, as well as attract visitors. The AONB Unit produces a Visitor Guide to the Mendip Hills, and downloadable walks in the Mendip Hills, as do other organisations including the National Trust, and Somerset Wildlife Trust.
- 3.5.8 There are a significant number of walking, running, horse-riding and cycling organised events each year, many of them for charity fundraising. The AONB Partnership has produced guidance for event organisers, to help minimise impact of events on the landscape.

Issues

- 3.5.9 Managing the demand for recreation in a landscape that is designated for its natural beauty that is also a working environment with the majority of land under agriculture and in private ownership, is challenging.
- 3.5.10 Conserving landscape and scenic beauty so that the Mendip Hills AONB continues to attract visitors is key for the local tourism economy. The need for economic growth and new development should not be at expense of landscape quality, and this has been recognised in the National Planning Policy Framework.
- 3.5.11 Areas of conflict may arise between different user groups where activities (legal and illegal) have impacted on people's enjoyment.
- 3.5.12 Intense rainfall has seen a number of well used rights of way

⁷ Economic Value of outdoor activity in the Mendip Hills AONB report (2006)

heavily eroded by surface material being washed away, compounded by ongoing heavy usage. Site management measures will need to be introduced to tackle some of these issues, which may require seasonal restrictions on use of certain routes or areas, and during long dry periods when there is an increased risk of fire.

- 3.5.13 Habitat deterioration, or loss of sensitive wildlife habitats due to an increase in number of tourist visits, increased leisure use, and, or new access could occur without careful management. Habitat deterioration or loss occurs from trampling, and this can be exacerbated on steep slopes, and by nitrogen enrichment from dog fouling.
- 3.5.14 Providing appropriate information including online, and on site, for different, and new audiences is important to ensure people can access the area and are aware of its importance.
- 3.5.15 The low level of public transport provision inhibits visiting much of the Mendip Hills for those without access to a car.

3.6 Natural Resources

Natural Resources objectives:

N1 Recognise and promote the benefits and relevance of the AONB as a valuable source of ecosystem services, economic and health benefits.

N2 Promote conservation of water resources and enhance their quality taking measures to reduce low flows and flooding by appropriate management and use.

N3 Promote sustainable management of soils in accordance with best practice to minimise erosion and water pollution and maximise resilience to drought.

Indicators (data provider);
continued reductions in nutrient concentrations in tributaries to the reservoirs (Bristol Water).

- 3.6.1 The principle of conserving natural resources within the Mendip Hills AONB, using them in the most sustainable way, and enhancing their contribution to the needs of society, is fundamental in the future management of the area. Water and soils are considered under this theme. Quarrying, woodland and forestry, and farming are considered under Land Management theme (3.7).
- 3.6.2 Water management, both quality and availability, will benefit many ecosystem services, including soil quality, soil erosion, and biodiversity.

- 3.6.3 The three reservoirs, Chew, Blagdon and Cheddar, supply water to 1.2 million people and businesses in the Bristol Water area. Chew Valley Lake, is internationally important for wildlife. Chew and Blagdon Lakes are designated as Drinking Water Protected Area Safeguard Zones along with the catchments that drain to them. The Environment Agency, Bristol Water, Natural England, and other partners are developing action plans to address the sources of nutrients in the lakes.
- 3.6.4 There is little or no risk of flooding within the hills, as rivers flow underground in this limestone landscape, but flooding has been experienced in the Chew Valley and Cheddar, where the streams and river emerge. North and Mid Somerset, and the Bristol Avon Catchment Flood Management Plans cover the AONB.
- 3.6.5 Large parts of the AONB are within a Groundwater Source Protection Zone due to its contribution to the public water supply. Ground water quality is generally good overall although there is a need to reduce sources of diffuse agricultural pollution into the groundwater and water courses, and run-off, and soil erosion into water courses.
- 3.6.6 Grazing is restricted around the Chew and Blagdon reservoirs to prevent contamination. The AONB is adjacent to the Somerset Levels and Moors, and the North Somerset Moors Sensitive Farming Priority Catchments, where issues of nitrogen enrichment, phosphates, and sedimentation have been identified affecting the quality of Chew Valley Lake. The area surrounding each of the reservoirs is designated a Nitrate Vulnerable Zone, where farmers have to comply with EU regulations to reduce nitrate loss from agriculture.
- 3.6.7 The Mendip Lakes Partnership project area includes those farmed areas draining into the Chew and Blagdon lakes, and the Cheddar Reservoir catchment. Bristol Water needs to reduce the nitrate concentrations, and are working with farmers to reduce nitrate leaching, and run-off, for example using cover crops over winter, and by stopping slurry applications when nitrate will not be used by crop uptake. This partnership also involves the Environment Agency, Natural England and Avon Wildlife Trust
- 3.6.8 Bristol Water continues to educate consumers about economical use of water. Constraints to limit, or stop water being abstracted during low flow situations may become more frequent with a changing climate.

Issues

- 3.6.9 Whilst the run-off from land in this predominantly upland area is low, steep slopes in some areas can increase run-off rates locally, and under extreme weather conditions have resulted in local flooding. It might be possible to reduce this by expanding and maintaining semi natural habitat particularly woodland on the

steep slopes and boundary features e.g. walls, and hedgerows.

- 3.6.10 As more land is now managed under arable, there is an increased risk of soil movement where run-off risks soil deposition in water, and cave systems.
- 3.6.11 Further demands on the public water supply through increases in population may exacerbate over abstraction. Demand increase from new development may be offset by increased efficiency in existing housing and industry.
www.environmentagency.gov.uk Groundwater Protection zones, Nitrate Vulnerable Zone, Flood Management Plans
www.naturalengland.gov.uk Sensitive Farming Catchments
www.bristolwater.co.uk – Chew, Blagdon and Cheddar lakes

3.7 Land Management

Land Management objectives:

LM1 Support and promote farming to ensure it remains as the principle land use and contributes to maintaining the special qualities of the AONB.

LM2 Support and promote rural land management that conserves and enhances natural resources, including biodiversity special to the Mendip Hills, landscape character the historic environment and aids public awareness and enjoyment of the Mendip Hills AONB.

LM3 Support and promote a sustainable woodland economy that enhances the Mendip Hills AONB woodlands and wider landscape with targeted woodland management and creation in appropriate locations supporting wood fuel and local community opportunities.

LM4 Influence the use, restoration and after use of all quarries to minimise the impact on the landscape and to be compatible with the purposes of designation.

Indicators (data providers);

Total area of woodland (Forestry Commission)

% of woodland managed (Forestry Commission)

Area of new woodland created under Forestry Commission Grant Scheme (Forestry Commission)

Amount of rainfall (Environment Agency)

- 3.7.1 The Mendip Hills landscape is largely a result of the way the land has been shaped by different land uses, and maintained by farmers, landowners, and estate managers over the centuries. As such, those with a stewardship role in the Mendip Hills are an integral part of conserving and enhancing the landscape, and managing natural resources (see Natural Resources 3.6)

- 3.7.2 Farming is the major land use with 64% (12584 ha)⁸ of the AONB

⁸ State of the Mendip Hills AONB Report 2018

being agricultural land. Of this farmed area 80% is temporary or permanent grass, and only 11% is arable. Grazing livestock is the predominant holding type. There is also some dairy and arable farming on the plateau. Beef, and sheep grazing are concentrated on the small, irregular fields and remnant sheep walks (sleights) of the escarpments, where the soils are thinner.

- 3.7.3 The area has been a target for agri-environment grant schemes, with 55% of the AONBs agricultural land receiving £971,095 in funding in 2017. A number of farms owning traditional breeds have long been providing stock to graze land under conservation management for organisations such as the Wildlife Trusts, and National Trust. Much of this land is the steep slopes and gorges with public access, and where there is little benefit to the farmer, but is vital to control scrub on these grassland areas.
- 3.7.4 The species rich grasslands provide important nectar sources for pollinating insects and are in close proximity to the arable farming of the plateau. Pollinators are critically important to the horticulture of the Strawberry Belt, growing mainly soft fruit which is focused on the high quality agricultural land between Axbridge and Rodney Stoke. Proximity of semi-natural habitats, and encouraging use of field margins in arable land, is important to allow pest regulating species including insects, birds, and mammals to move across the landscape.
- 3.7.5 There are a number of traditional and new orchards in the area, along with community managed orchards.
- 3.7.6 Increasing consumer awareness, and demand for high quality products from sustainable farm management has contributed to an increase in the number of farm shops, and farmers supplying direct to local businesses. Encouraging growth in this sector will benefit climate regulation, and local culture.
- 3.7.7 Working with the local farming community to safeguard future food production whilst enhancing key ecosystem services such as biodiversity, water quality, water regulation (flooding), regulating soil quality and soil erosion, pollination services, and genetic diversity, geological and historic features is essential.
- 3.7.8 Woodland covers 13.7% of the AONB⁹, and significantly contributes to the landscape character and biodiversity. Half of the woodland, some of which is ancient woodland, is semi-natural broadleaved woodland, situated mainly on the north, and south facing slopes of the hills. The Government's Forestry Policy Statement¹⁰ recognises the value of our native and ancient woodland and the need to maintain existing ancient woodland and

⁹ State of the Mendip Hills AONB Report 2018 (2865 hectares)

¹⁰ Keepers of Time – A statement of policy for England's Ancient and Native Woodland (Defra/Forestry Commission, 2005)

increase the net area of native woodland.

- 3.7.9 The Forestry Commission manages the conifer plantations at Rowberrow, Stockhill, and East Harptree, to maximise timber production and public benefits. Guided by Forest Design Plans, they are gradually being transformed into more diverse woodlands. These, and other areas of woodland are accessible to the public for recreation, and the value to people in having this access should be recognised.
- 3.7.10 Biomass energy has not been undertaken in the AONB on any significant scale to date. Existing woodland cover offers potential for production of biomass energy, and another biofuel crop, Miscanthus, has been planted in a number of fields, with the potential to be extended to other areas.
- 3.7.11 Quarrying is an important part of the Mendip economy. Callow Rock, and Batts Combe are the two major quarries in the AONB, both extracting Carboniferous Limestone. To lessen their environmental impacts, quarries are required to meet acceptable levels of noise, dust, vibration and visual intrusion. (See 3.8 Development and Transport). Work has been undertaken by Somerset County Council and Somerset Wildlife Trust to build into policy an ecological approach to restoration

Issues

- 3.7.12 Changes in the farm payment systems are likely, due to leaving the European union. Payments are likely to be closely linked to 'public goods' around natural capital, conservation, and access. In addition to promoting good management of species rich priority grasslands, it will also be important to encourage uptake of options that promote wildlife benefits in temporary leys. Promoting legume, and herb rich swards for intensive silage production, especially on the plateau, should continue to be trialled as a means of increasing the permeability of large areas of agriculturally improved grassland for wildlife (following successful pilot schemes by Somerset Wildlife Trust and FWAG).
- 3.7.13 There are woodland areas that potentially would benefit from management for wildlife, economic, or recreational benefit, or a combination of these. As the value of timber (conifer), and wood fuel has improved over the last 15 years, private woodland owners may now consider sustainable management of woodland that would benefit biodiversity and landscape, and the sequestration and storage of atmospheric CO₂.
- 3.7.14 Opportunities for new woodland planting are relatively limited, as particularly on the plateau, it needs to be in keeping with the open landscape character, and on the southern scarp that is mostly calcareous grassland, they are nationally important and designated SSSIs. However, there may be opportunities for

targeted woodland creation in appropriate locations, to deliver a range of social, and environmental services benefits, such as mitigating surface water run-off.

- 3.7.15 Typical Mendip species being ash, ash dieback (Chalara) is affecting Mendip woodlands and the risk is significant this will require landowners and managers to share information and monitor impact.
- 3.7.16 For biomass crops, as with new woodland planting, siting is critical in order not to devalue other goods and services in terms of landscape character, and ecological networks.
- 3.7.17 Although the quarry permissions to operate for significant periods into the future landscape, biodiversity, and recreational use of redundant quarries needs to be considered alongside other potential provision, to ensure that the way in which quarrying takes place, and the after use is planned to create long term benefit and restore natural capital.
- 3.7.18 Where development is supported, appropriate conditions are required for quarrying and other mineral or gas extraction. (See also 3.8 Development and Transport).

3.8 Development and Transport

Development and Transport Objectives:

D1 Working with the local planning authorities, ensure that development in the AONB and its setting is of a nature, scale, location and design that meets community need without compromising the special qualities of the Mendip Hills AONB, with early discussion on appropriate and acceptable mitigation measures desirable.

D2 Working with the local highways authorities, ensure that the special qualities of the AONB are fully respected in the planning, design, provision and management of all types of transport and associated infrastructure.

D3 Encourage reduction in Carbon emissions within the AONB through reducing energy consumption, applying energy conservation measures, encouraging more sustainable patterns of development, and utilising renewable energy generation technologies that are of an appropriate type and scale for their siting.

D4 Ensure issues of importance for the management of the AONB landscape are fully reflected in strategies and plans produced by other agencies and local communities.

D5 Promote environmental net gain principle for development, including housing and infrastructure.

Indicators (data providers)

% of car ownership (censor data)

% Increase in light pollution (CPRE)

% of the AONB that is relatively tranquil (NE)

- 3.8.1 Although the AONB embraces 28 parishes lying wholly, or partly within its boundary, there are few major settlements in the AONB, most are spring-line villages with only Priddy on the plateau itself. Sensitive planning, and design of development is crucial in retaining the character and appearance of the landscape, particularly the open spaces within villages, and the dispersed nature of development.
- 3.8.2 Responsibility for determining planning applications and transport matters lies with the local planning and highways authorities. The AONB Partnership Committee 'Guidelines for the referral of planning applications' determines which applications are referred to the AONB Unit's Landscape Planning Officer for comment.
- 3.8.3 Within the context of the National Planning Policy Framework, there is a need to manage development pressures and land use changes, both within, and in the setting of the AONB with sensitivity to maintain a balance in promoting economic and social viability, whilst retaining the character of the landscape and enhancing biodiversity. Strategies such as Green Infrastructure Plans, Biodiversity Opportunity Mapping, and Landscape Character Assessments may assist in securing this.
- 3.8.4 Two Local Enterprise Partnerships (LEP) areas include the Mendip Hills AONB, and it is hoped that that they will consider both the rural economy, and recognise the benefits of maintaining high quality landscapes. Their current areas of their work: transport infrastructure; upgrading of digital infrastructure; urban green infrastructure; flood relief work; all stands to benefit the local economy.

Issues

- 3.8.5 The response in terms of development to the potential challenges of climate change and the impacts on the designated landscape are important issues to address. The need to reduce carbon emissions to tackle climate change is widely recognised and there are numerous measures in place to reduce energy use, improve energy efficiency and to reduce reliance on fossil fuels by generating electricity via renewable energy sources. Where protected landscapes are concerned, the environmental benefits of generating electricity from renewable sources must be considered against the potential adverse impacts that renewable energy infrastructure may have on the character, and quality of our finest landscapes.
- 3.8.6 The National Grid's new power line between Hinkley C power station and Seabank, Avonmouth will be undergrounded through

the Mendip Hills AONB to ensure that impact on the landscape is minimised, along with removing existing pylons. Work on the 8.5km route of the underground cable will start in spring 2019, when contractors will build a haul road through the AONB between access points at Tarnock and Sandford. This will minimise the amount of construction traffic on local roads. Ensuring local authorities work together to ensure consistency in approach to this and other development proposals is a key role for the AONB Partnership.

- 3.8.7 Whilst any surface operations associated with fracking are not permitted within National Parks, the Broads, and Areas of Outstanding Natural Beauty (AONBs), and Source Protection Zones (SPZ)¹, licences have previously been issued to explore for oil and gas underneath nationally protected landscapes. A Written Ministerial Statement (May 2018) further sets out proposals that would effectively fast track fracking proposals. The AONB Partnership has serious reservations about the process of fracking within nationally protected landscapes (sub-surface), and within the setting of the Mendip Hills AONB, where this would have an impact on the designated area. Bath & North East Somerset Council passed a resolution on 13/9/18 opposing fracking.
- 3.8.8 Traffic continues to detract from people's enjoyment of the environment and raises safety issues for vulnerable road users. Public transport needs to be improved to reduce the impact and enable greater access for people with mobility problems and those without access to private cars. Traffic including Heavy Goods Vehicles impact on the AONB in variety of ways, including tranquility, visual impact and damage to buildings.
- 3.8.9 Development pressure on the AONB comes from many sources, including proposals within the setting of our northern boundaries for significant housing growth that will bring the urban area closer to the edge of the AONB, proposals to double the capacity of Bristol Airport to accommodate 20mppa, increasing road traffic, and recreational use, and with the potential to impact on the special qualities that create the sense of place, and identity of the Mendip Hills AONB. There are also development pressures along our southern boundaries which may impact on the AONB. The impact of development on the protected landscape and the special qualities of the Mendip Hills AONB needs to be carefully considered, and where supported requires appropriate, and acceptable mitigation measures.
- 3.8.10 There are opportunities within the Mendip Hills AONB to deliver 'net environmental gain', supporting the objectives of the Defra 25 Year Environment Plan.
- 3.8.11 Tourism is an important element of the economy of the AONB. It is expected that there will be continuing demand for new tourist-related developments in and around the AONB. It will be

important to ensure that such development is sustainable and does not detract from the landscape that visitors come to enjoy.

- 3.8.12 Demand for new equestrian and agricultural buildings continues. The AONB Guidelines for Horse-related Development and Agricultural Buildings Design Supplementary Planning Guidance/Documents seek to influence their design and setting and assist local planning authorities when making planning decisions that affect the AONB.
- 3.8.13 Noise and activity arising from developments together with lighting, can have an adverse impact on the areas tranquility, dark skies and protected species like bats. Mapping of light pollution has shown that the area of dark skies in the Mendips is shrinking. The AONB Partnership Position Statement on Dark Skies seeks local authorities and others to minimise the impact of lighting.
- 3.8.14 Issues and characteristic features relating to the conservation and enhancement of the AONB should be incorporated in local plans, and Neighbourhood Plans. A number of villages have identified a need for affordable housing to support rural communities.
- 3.8.15 Design of roads, signage, and lighting can have a significant impact on the visual appearance of the landscape. Removing unnecessary visual clutter, and consideration of any new signage, is essential for an area in which five local authorities boundaries meet. There is a need for highways authorities to use discretion when following national regulations, and to demonstrate duty of regard for the AONB.

3.9 Participation

Participation objectives:

P1 Increase the opportunities for volunteering and the range of people participating, to benefit the environment, people's health and wellbeing and local communities in and around the AONB.

P2 Encourage the involvement of local people and the wider community in the management of the AONB.

P3 Promote the Mendip Hills as an educational resource for all ages and encourage sharing of research and learning tools.

Indicators (data providers)

Number of volunteer hours(AONB)

Number of Young Rangers completed two year programme (AONB)

Number of practical tasks (AONB)

- 3.9.1 Understanding the purpose of designation, what makes this AONB special, with the need for sensitive management, is crucial to the delivery of this Management Plan. People must have the opportunity to experience, enjoy, and learn about the AONB, and why it is special. The AONB Partnership plays a key role in raising awareness of the AONB, largely through the AONB Unit. The AONB Unit provides information on request through printed and digital formats, including the AONB Visitor Guide. In addition to these, there are other visitor outlets, and partner websites.
- 3.9.2 Making people feel welcome and providing a high quality experience is central to encouraging people to appreciate, realise opportunities it offers and be involved in the care of the AONB.
- 3.9.3 The AONB hosts a number of events including the annual Heritage Open Days, Mendip Rocks!, Top of the Gorge, and agricultural shows, as well as promoting research and learning that both assist in raising understanding, awareness, and encourage participation.
- 3.9.4 Numerous local colleges and universities use the area for study, and research projects. The AONB Unit through the Mendip Hills Fund has supported research projects led by universities.
- 3.9.5 The local communities demonstrate a strong appreciation for the area. Most villages have a local history group, and/or run a traditional annual event, or have undertaken a conservation project. However, there is great potential to do more, and use people's interest and develop skills to manage the AONB. Assisting communities to influence decisions and contribute to the protection and enhancement of the AONB through better understanding of the designation, its boundary, and special qualities is recognised.
- 3.9.6 Increasing people's knowledge and involvement amongst under-represented groups, particularly young people, the elderly, and those with disabilities requires targeted approaches. The Somerset AONBs have a joint Nature and Wellbeing Officer funded by Public Health. This officer has introduced groups to the AONB who would not normally visit. AONB Volunteers and Young Rangers regularly visit a care home in Cheddar.
- 3.9.7 The Mendip Hills AONB Young Ranger scheme established in 2005, provides a structured programme of training, and countryside experience for young people from surrounding schools. Modelled on the EUROPARC Junior Ranger scheme, the AONB is part of the EUROPARC Atlantic Isles Initiative to develop a UK Young ranger network.

Volunteering hours have risen significantly recently connected to the AONB Unit. A joint Volunteer Coordinator post with the Somerset AONBs runs a programme of volunteer practical tasks and coordinates the AONB Volunteer Rangers and Young

Rangers. Volunteers also help in the office, and long term placements are taken up by students to gain work experience.

The Mendip Hills Fund was established with Somerset Community Foundation by the AONB Partnership in 2014. The AONB Unit manages the independent panel and fundraising, with the Somerset Community Foundation administering the grant applications. Grants are available for projects in the AONB, and East Mendip, that conserve and enhance the landscape, raise awareness of the area, and support the local community. Funds are raised through a variety of visitor giving schemes, contributions from local tourist business and events that use the AONB. In 2018 £11,000 was available to distribute.

Issues

- 3.9.8 There is currently a fragmented approach to use of the Mendip Hills for people's health and wellbeing by the health sector. Developing new partnerships through the local authorities Public Health and Wellbeing Boards is an opportunity to seek to address this. (see also Recreation, Access and Tourism Objective R4).
- 3.9.9 Maintaining and developing existing volunteer programmes and schemes, and offering new opportunities is a challenge with reduced funding but are vital to the area's wellbeing.
- 3.9.10 There are further opportunities to share research and learning tools, as often when completed or published, research and learning stays with the particular education body, individual, or organisation, yet shared it could assist wider understanding of the AONB, and its special qualities.
- 3.9.11 There is a need to encourage more residents to understand and support the purpose of the AONB through their involvement in local activities including neighbourhood plans to conserve and enhance the AONB (see also Development and Transport Objective D4).

4. Delivering the Management Plan and Monitoring the State of the AONB

- 4.1 In addition to monitoring the successful delivery of the Management Plan, the Partnership will monitor the state (or condition) of the AONB. Both types of monitoring play important roles in identifying key issues, and in assessing the continued relevance of Management Plan objectives and associated actions.
- 4.2 Under each theme monitoring indicators are listed. Natural England is providing data through their **Framework for Monitoring Environmental Outcomes in Protected Landscapes** (see 4.5) other data will be collected locally.
- 4.3 At a local level statutory agencies operating in the area, particularly Natural England, Historic England, and the Environment Agency together with the local authorities, make positive contributions to efficient collation of data for monitoring as part of their general duty to conserve and enhance the AONB.
- 4.4 The Mendip Hills AONB Partnership produces an Annual Delivery Plan, and Annual Reviews to report progress (see www.mendiphillsaonb.org.uk)

4.5 Framework for Monitoring Environmental Outcomes in Protected Landscapes

Confirmed statistics being provided to each AONB and National Park

Statistics	Provider
1. The area managed under agri-environment agreements, i.e Countryside Stewardship Scheme (CSS), Environmentally Sensitive Areas (ESA) and the different levels of Environmental Stewardship (ES). Expressed as a % of the protected landscape and as a % of the draft Utilisable Agricultural Area within it.	Natural England
2. The total annual values of agri-environment agreements (CSS, ESA and different levels of ES)	Natural England
3. Interactive spreadsheets enabling protected landscape bodies to calculate the uptake of ES field parcel options and 'numbers of' items e.g trees, which can be tailored to local circumstances.	Natural England
4. The uptake of 6 themed groups of ES options that contribute to conserving and enhancing landscape character: - The area of land under ES for the management and protection of archaeological features - The number of hedgerow trees and in-field trees managed under ES - The area of woodland managed and created under ES - The area of low input grassland managed, restored or created under ES - The area of land under ES for the management, restoration or creation of lowland heathland - The area of land under ES for the maintenance, restoration or creation of moorland Statistics provided in early June.	Natural England
5. The area of Sites of Special Scientific Interest (SSSIs) in favourable or recovering condition.	Natural England
6. Condition of broad habitats within SSSIs	Natural England
7. Number of heritage assets, including the number of listed buildings (including grade II listed) and structural scheduled monuments, scheduled monuments, registered parks and gardens, registered battlefields.	Historic England
8. % of heritage assets that are 'at risk', including buildings at risk (excluding grade II listed), monuments, registered parks and gardens, registered battlefields, conservation areas and places of worship.	Historic England
9. % of the protected landscape that is relatively tranquil for its area.	Natural England
10. Number of geological SSSI unit features, and % in favourable or recovering condition.	Natural England
11. Total area of woodland (Sub-divided into categories, e.g. broadleaved, conifer, mixed, shrub land plus young trees, felled woodland plus ground prepared for new planting. Sub-divisions tbc)	Forestry Commission
12. % area of woodland that is managed (incorporating woodlands where there has been Forestry Commission England grant scheme or felling licence activity in previous 5-10 years).	Forestry Commission
13. % of the protected landscape as 'accessible natural environment'	Natural England
14. Length of Public Rights of Way (likely to be sub-divided e.g into footpaths, bridleways, cycle tracks, and Byways Open to Traffic. Sub-divisions tbc)	Natural England
15. Length of National Trails	Natural England
16. Land use change statistics	Defra

5. Appendices

5.1 Appendix 1 - AONB Unit Core Functions

- a) Developing, reviewing, preparing and publishing the AONB vision and the CRoW Act AONB Management Plan.
- b) Promoting the AONB vision and management plan to help distinguish the AONB from adjacent countryside.
- c) Advising upon, facilitating and co-ordinating implementation by others of the Management Plan.
- d) Advising Local Authorities on their activities within AONBs, to encourage them to go beyond normal levels of service (attain the highest possible standards) in countryside management.
- e) Monitoring and reporting on progress against AONB Management Plan targets.
- f) Monitoring AONB landscape condition.
- g) Accessing resources for management activities.
- h) Working with and contributing to the NAAONB activities, sharing advice and best practice nationally and regionally.
- i) Providing a management role to co-ordinate AONB protection through the actions of the AONB unit, the AONB partnership and other partners at a local and strategic level.
- j) Developing an involvement by the community in the management of the AONB.
- k) Providing landscape related planning advice.

5.2 Appendix 2 - Drivers for Change (additional information)

Making Space for Nature: A review of England's Wildlife Sites and Ecological Network by Professor Sir John Lawton (Sept 2010) concluded that England's collection of wildlife sites does not comprise a coherent and resilient ecological network that is capable of coping with the challenge of climate change and other pressures. To make space for nature we need more, bigger, better and joined up sites to create a sustainable, resilient and more effective ecological network for England.

Practically this requires actions under five headings:

- Improve the quality of current sites by better habitat management.
- Increase the size of current wildlife sites.
- Enhance connections between, or join up, sites, either through physical corridors, or through 'stepping stones'.
- Create new sites.
- Reduce the pressures on wildlife by improving the wider environment, including through buffering wildlife sites.

These actions will help to establish an ecological network that meets the needs for wildlife and people today, and one that is more resilient to the future.

In "Making Space for Nature, it identified Areas of Outstanding Natural Beauty, the largest of all the protected areas, as having great potential "to establish a coherent and resilient ecological network". **"Think big: ecological recovery in protected landscapes"** a joint response to this by National Parks and AONBs recognised that in order to realise this ambition, the land being under some form of agricultural, forestry or game management, it is critical that habitat improvement and creation becomes part of sustainable land management systems and businesses and provides adequate reward for land managers.

Natural Environment White Paper (NEWP) – The Natural Choice: securing the value of nature (June 2011) largely influenced by Making Space for Nature, this White Paper set out four ambitions, three of which are key targets for AONB Partnerships:

- Protecting and improving our natural environment
- Growing a green economy
- Reconnecting people and nature

Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011) outlines the strategic direction for biodiversity policy for the next decade on land (including rivers and lakes) and at sea, building upon the Natural Environment White Paper, and is the UK Government national commitment to the Convention on Biological Diversity.

Biodiversity 2020 outcomes will be delivered through actions in four areas:

- a more integrated large-scale approach to conservation on land and at sea;
- putting people at the heart of biodiversity policy;
- reducing environmental pressures;
- improvement of knowledge.

The NAAONB are part of the Terrestrial Biodiversity Group set up to provide Defra with partner/stakeholder input to the Biodiversity Strategy 2020 annual delivery plan.

AONB Partnerships are expected to assist delivery of a number of Biodiversity 2020 Outcomes including:

Outcome 1c – By 2020, at least 17% of land and inland water, especially areas of particular importance for biodiversity and ecosystem services, conserved through effective, integrated and joined up approaches to safeguard biodiversity and ecosystem services including through management of our existing systems of protected areas and the establishment of nature improvement areas

Outcome 1b “an increase in the overall extent of priority habitats by at least 200,000 ha.” The habitat creation aspiration for which is to be measured within NCAs and NIAs geographical areas.

Action 1.1.9 states: *Encourage and support new and existing large scale initiatives for improved ecological networks across the Area of Outstanding Natural Beauty (AONB) designated landscapes.* Biodiversity and ecosystem targets are required to be integrated into all AONB Management Plans to meet the challenge of Outcome 1c.

As a Partnership, by 2020 we will have put in place measures so that *biodiversity is maintained and enhanced, further degradation has been halted and where possible, restoration is underway, helping deliver more resilient and coherent ecological networks, healthy and well-functioning ecosystems, which deliver multiple benefits for people and wildlife.*

United Kingdom National Ecosystem Assessment (June 2011)

The UK National Ecosystem Assessment (UK NEA)¹¹ was the first analysis of the UK's natural environment in terms of the benefits it provides to society and our continuing economic prosperity.

The assessment provides values for a range of services we gain from nature to help us fully understand the worth of the natural environment and how the benefits to individuals and society as a whole can be better protected and preserved for future generations. It stresses the need for a more collaborative approach to enhancing our environment, with everyone playing their part to embrace more of nature's benefits, which is where our work in the Mendip Hills comes in and evidences the crucial role that we can play. (See 1.5 The benefits of the Mendip Hills to society).

Evidence Statement on the links between natural environments and human

¹¹ The UK National Ecosystem Assessment Synthesis of Key Findings <http://uknea.unep-wcmc.org/Resources/tabid/82/Default.aspx>

health (Defra 2017). This documents states that policy and delivery should aim to encourage and enable people and organisations to behave differently to improve health outcomes and benefit the natural environment. The evidence supports the following priority actions (Allen and Balfour 2014):

- Improving coordination and integration of policy and delivery;
- Ensuring interventions are user-led;
- Increasing the quality, quantity and use of natural environment assets that equitably
- benefit people's health and help prevent ill health;
- Ensuring sustainable delivery of services that use the natural environment.

<https://beyondgreenspace.files.wordpress.com/2017/03/evidence-statement-on-the-links-between-natural-environments-and-human-health1.pdf>

5.3 Glossary

Calaminarian grassland - is where the process of succession has been halted due to the toxicity of soils containing high levels of toxic metal ions. These habitats may be semi-natural on naturally exposed deposits, or the result of mining, or from erosion by rivers, sometimes including washed-out mine workings.

Catchment Management Plans - plans to benefit whole water catchment areas by working in partnership with individuals and organisations. Records state of water quality, habitats and species, impacts and issues to be addressed.

CRoW Act – Countryside and Rights of Way Act 2000 - confirmed the significance of AONBs. Section 85 places a statutory (legal) duty on all relevant authorities to have regard to the purpose of conserving and enhancing natural beauty when discharging any function in relation to, or affecting land within an Area of Outstanding Natural Beauty. www.defra.gov.uk/wildlifecountryside/cl/index.htm

Ecological Network - an ecological network is a joined-up group of natural and semi-natural habitats which is managed with the objective of maintaining or restoring ecological function, in order to conserve biodiversity. Ecological networks are provided as a response to biodiversity decline and aim to provide a connected collection of refuges for wildlife. These networks are the basic natural infrastructure that will begin to enable biodiversity to recover from recent declines and help to protect socially and economically important ecosystem goods and services.

European Landscape Convention - also known as the Florence Convention, after the city where the convention was adopted - promotes the protection, management and planning of European landscapes and organises European cooperation on landscape issues. It is the first international treaty to be exclusively concerned with all dimensions of European landscape. www.coe.int

Green Infrastructure - is a network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities.

Gruffy ground - remains of post medieval surface mining.

Habitat Regulations Assessment - The purpose of the Habitat Regulations Assessment (HRA) is to identify any aspects of the emerging Local Plan that would have the potential to cause a likely significant effect on Natura 2000 or European sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites), (either in isolation or in combination with other plans and projects), and to identify appropriate avoidance and mitigation strategies where such effects were identified.

Karst - Landscape characterised by remarkable surface and underground forms, created as a result of the action of water on permeable limestone.

Landscape Character Assessment - a tool to identify what makes an area unique to aid planning and management of landscapes.

Lidar - a remote sensing technology that measures distance by illuminating a target with laser light and analysing the reflected light. Lidar is popularly known as a technology used to make high resolution maps.

Living Landscapes - an approach adopted by the Wildlife Trusts, recognising that nature conservation efforts must be implemented at the landscape-scale. In essence they aim to restore, recreate and reconnect habitats to enable wildlife to move through the landscape. They are large-scale conservation programmes essentially similar in character to those later defined as Nature Improvement Areas. Avon and Somerset Wildlife Trusts both operate Living Landscape schemes within the AONB.

Local Enterprise Partnership (LEP) - 2011 the government invited local councils and businesses to set up voluntary partnerships to help strengthen local economies, set out local economic priorities. They replaced Regional Development Agencies. The West of England and Heart of the SW cover the Mendip Hills AONB.

Local Nature Partnership (LNP) - partnerships of a broad range of local organisations, businesses and people who aim to help bring about improvements in their local natural environment. Setting up LNPs was one of the commitments made in the Natural Environment White Paper 2011. The West of England and the Somerset LNPs cover the Mendip Hills AONB.

Miscanthus - a perennial grass considered an ideal energy crop that has the appearance of elephant grass.

National Character Area (NCA) - there are 159 NCAs – these areas share similar landscape characteristics and follow natural lines in the landscape. Natural England are producing profiles for each NCA to provide decision making frameworks for the natural environment.

NCA 141 and 118 cover the Mendip Hills AONB. www.naturalengland.gov.uk

National Planning Policy Framework 2018 - sets out the Government's planning policies for England and how these should be applied. It provides a framework within which locally-prepared plans for housing and other development can be produced.

Natura 2000 sites - see SACs and SPAs

Nature Improvement Area (NIA) - these are large, discrete areas that, by taking a landscape-scale approach, will deliver a step change in nature conservation, where a local partnership has a shared vision for their natural environment. The partnership will plan and deliver significant improvements for wildlife and people through the sustainable use of natural resources, restoring and creating wildlife habitats, connecting local sites and joining up local action.

National Nature Reserve (NNR) - areas where wildlife comes first – established to protect most important sites of wildlife habitat and geological formations in Britain. The majority have some form of public access.

Neighbourhood Plan - A plan prepared by a parish council or neighbourhood forum for a designated neighbourhood area. In law this is described as a

neighbourhood development plan in the Planning and Compulsory Purchase Act 2004.

Regionally Important Geological and Geomorphological Sites (RIGS) - identified by locally developed criteria, are the most important places for geology and geomorphology outside statutorily protected land. RIGS are selected in a different way to Earth science SSSIs, which are chosen on a national basis. RIGS are selected on a local or regional basis using four nationally agreed criteria. Nationally important geological sites are protected as Sites of Special Scientific Interest (SSSIs).

Site of Special Scientific Interest (SSSI) - the country's best wildlife and geological sites. Many SSSIs are also NNRs.

Sites of Nature Conservation Interest (SNCI) - these are sites of regional nature conservation importance.

Special Area of Conservation (SAC) - protected sites under the European Community Habitats Directive - forming a network of high quality conservation sites.

Special Protection Area (SPA) - designated under the European Birds Directive because of their importance to birds.

Special Qualities - AONBs are designated solely for their landscape qualities, for the purpose of conserving and enhancing their natural beauty. Designation under the provisions of the 1949 National Parks and Access to the Countryside Act is to secure their permanent protection against development that would damage their special qualities. The AONBs special qualities are listed in the AONB Management Plan (see 1.4)

Spring Line Settlements - occur where a ridge of permeable rock lies over impermeable rock and there will be a line of springs along the boundary between the two layers. It sometimes happens that a sequence of spring line settlements will arise around these springs, becoming villages.

Strategic Environmental Assessment (SEA) - the purpose of an SEA is to ensure that land-use plans and programmes, that are likely to have significant effects on the environment are subjected to a strategic level (high and overarching) assessment of options and alternative courses of action during plan preparation in order to avoid or mitigate any adverse effects.

Swallets - also known as sinkhole, doline, swallow hole - a natural depression or hole in the Earth's surface. Develop by a variety of methods –collapse, suffusion or solution. Can be 20 metres deep and 100 metres or more in diameter. www.bgs.ac.uk