Natural Environment

'One Thousand Ancient Trees'

"People make the land. It's all about relationships"

Tracy Adams, Farmland Bird Project

These old beings

Why do they grow here?

One Thousand Ancient Trees

What can they tell us?
These old beings
A constant presence
In the changing landscape
Home to two ravens
Swinging and croaking through the air.

Why do they grow here?
In this mixed mosaic
Of Chalk and Sand,
Prickly Poppies
Shepherds Needle
Corn Marigold
Weasel Shout
And Night Wing Catchfly,
Sweet honey for bees
With long licking tongues.

Who lives here?
Lapwing feeding in fallow ground
Grey Partridge nesting in cereal margins
Yellow Wagtails flitting in open crops
Turtle Doves hovering in hedgerows
Waiting for that Fat Bird of the Barley,
The Corn Bunting.

9. Natural Environment

Our natural resources, such as geology and soils, clean air and water, provide the fundamentals of life itself. These natural capital assets are the basis for the rich diversity and abundance of wildlife that thrives across the AONB. They offer us a high quality, healthy and stimulating environment. What we see around us now is the result of the interactions of natural and human activities over centuries. We need to better understand, promote and value all that the natural environment provides; to conserve and enhance that environment; and address the increasing uncertainties caused by climatic, economic, and social change.

The first chairman of this AONB Partnership was the late Dr Dick Potts, Director of the Game and Wildlife Conservation Trust. His enthusiasm for sustaining and enhancing wildlife in active agricultural landscapes has remained a key priority for this AONB.

9.1. Special characteristics and qualities that makes this AONB special, as a whole, with regards to the natural environment:

- Main geological features are extensive, wide, and gently rolling chalk ridges with escarpments and dip slopes, clay caps with flint deposits and valleys - both dry and occupied by rivers and streams. The central clay vale has areas of hard rock and a stone quarry. The cultivated flat Greensand Terraces contrast with the undulations of the more wooded Greensand Hills.
- Rich ecological character expressed in the diversity of habitats including the distinctive species-rich chalk downland, clear fast flowing chalk streams and rivers, ancient and calcareous woodlands and rare chalk heath and water meadows.
- An abundance of both emblematic wildlife species and those suffering decline such as the Greater horseshoe bat, Adonis blue and Duke of Burgundy butterflies, Tree sparrow and Skylark.
- Clear streams and rivers supporting wild trout, grayling, dace and chub, together with the fast disappearing water vole and aquatic species that rely on high quality water such as the white-clawed crayfish, seriously threatened by the introduction of non-native crayfish.
- Extensive tracts of arable land supporting the six most nationally threatened farmland birds; the Grey partridge, Lapwing, Turtle dove, Yellow wagtail, Tree sparrow and Corn bunting and rare arable plants, such as the Prickly poppy and Pheasants' eye.
- Cranborne Chase is particularly notable for its unusually high proportion of ancient woodland within a chalk landscape. This is largely due to its historic status as a royal hunting area.
- Ancient woods and woodland still under active coppicing management.

Ambition

9.2. The natural resources of the AONB will be managed sustainably. The AONB will be a place where wildlife thrives and is able to move freely across the area. The natural environment will be healthy and resilient to the effects of climate change.

Key Achievements

- This AONB was the lead partner in the **South Wiltshire Farmland Bird Project** (2009-15), which was part of the larger Natural England-led **South West Farmland Bird Initiative**. Its purpose was to reverse the decline in numbers of the six most threatened farmland bird species; Grey partridge, Lapwing, Corn bunting, Yellow wagtail, Turtle dove and Tree sparrow. It worked with arable farmers to provide key year-round bird habitat to include safe nesting areas, summer insect food and winter seed food.
- Forty four bird species were monitored during the project between 2011 and 2016; 19 that make up the Farmland Bird Index and a selection of other 'Birds of Conservation Concern' plus the Brown hare. This scientific monitoring showed that 42% of species assessed showed a significant positive population response to Farmland Bird Project management compared to population trends on plots with no such management. A further 27% of species showed non-significant responses[24].
- There have been other 'spin off' wildlife benefits, particularly for rare arable plants and the Brown hare. The project received national recognition on the BBC's Countryfile programme in 2013; and in 2015 won the Bowland Award, awarded annually for the best project, best practice, or outstanding contribution to the wellbeing of Areas of Outstanding Natural Beauty by the National Association of AONBs.
- **Farm Conservation Project** – in conjunction with further funding from Wessex Water via their Corfe Mullen to Salisbury Transfer Scheme (with additional funds from their Biodiversity Partner's Programme in 2015), the Farmland Bird Project to broaden its horizons to become this AONB's Farm Conservation Project. This project brings together groups of neighbouring farmers into 'clusters'. These work very effectively to initiate landscape-scale conservation of soil, water, and biodiversity, and potentially much more. Current and new clusters cover around 38,000 hectares. Our Farm Conservation Adviser also works with farmers submitting applications to Natural England's Countryside Stewardship Scheme. This project was also awarded Wiltshire Life's Conservation Project of the Year in 2017.
- The clusters effectively initiate landscape-scale conservation of soil, water, and biodiversity. This environmental work is at a much larger scale than anything undertaken previously. It has the capacity to meet Sir John Lawton's key aim of achieving 'more, bigger, better and joined' wildlife habitats as outlined in the 2010 report 'Making Space for Nature'[25], recently re-iterated in the Governments 25 Year Plan for the Environment.
- **Natural capital** – Cranborne Chase AONB was a key stakeholder in two major natural capital projects:
    - **Big Chalk** aimed to increase the resilience of natural capital stocks within the protected landscapes that share a common chalk geology throughout the South East and South West. Comprehensive mapping and modelling of natural capital at different spatial scales could then support decision making at the strategic level (specifically Local Plans, National Park and AONB area based Management Plans) and be used to target interventions at catchment, farm and field level.

24 Natural England (2010) Assessing the effectiveness of HLS agreements deploying the Farmland Bird Package 2011–2016
25 Professor Sir John Lawton et al (2010), Making Space for Nature: A review of England's Wildlife Sites and Ecological Network, Submitted to the Secretary of State, the Department for Environment, Food and Rural Affairs on 16 September 2010

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- **Wessex BESS** (Biodiversity and Ecosystem Services in Multifunctional Landscapes 2011-17) focused on lowland landscapes in the area around Salisbury Plain and the northern part of this AONB. This six-year programme sought to understand how biodiversity underpins the functions or services that landscapes provide. Through this understanding, policy makers and land managers would be better informed to make decisions.

Rare arable plants – Populations of rare arable plants have declined dramatically over the past 60 years and they are the most critically threatened group of plants in the UK. In 2010, a Wessex Water funded study was undertaken of rare arable plant distribution in the AONB, prepared jointly between the AONB, Black Sheep Countryside Management and the Game and Wildlife Conservation Trust. It pinpointed rare arable flora 'hotspots' together with indications of where good arable flora communities were likely to be present. The report consequently determined 39% of the AONB as an Arable Flora Target Area where focused management for arable plants, would be likely to be most effective.

'Stepping Stones' (2012-2015) – This partnership project aimed to improve existing, and create new, species rich chalk grassland habitat resulting in improved habitat connectivity, enabling species to move more freely to new areas. This joint initiative between Cranborne Chase and North Wessex Downs AONBs, Wiltshire Wildlife Trust, many farmers, Black Sheep Countryside Management and a host of volunteers, created an additional 344ha of linked, species rich chalk grassland. Volunteers alone undertook 230 hours work planting out around 23,000 plug plants.

Cranborne Chase Ancient Woodland Priority Area – one of four areas in the South West. The Forestry Commission undertook a mapping and targeting exercise in the south west to identify robust habitat networks centred around clusters of ancient and native woodlands, where landscape connectivity and permeability offered the best opportunity to link and extend ancient woodlands. By working on a landscape scale the resilience of these habitats to climate change and other threats can be enhanced. In 2009, an Ancient Woodland Priority Area was established in Cranborne Chase.

Sustainable Development Fund grant support to projects / training of volunteers:

- Around 50 volunteers have been trained to provide the Environment Agency with early warning of water pollution at 24 sites on the Rivers Wylye, Nadder, Ebble, Stour and Allen with Wiltshire Wildlife Trust;
- assess the current distribution and abundance of the White Clawed Crayfish over the length of the River Allen through Dorset Wildlife Trust;
- reconnect and enhance the habitats for rare and threatened wildlife along the River Allen;
- identify signs of Chalara dieback of Ash caused by the fungus Hymenoscyphus fraxineus; raise awareness of Chalara dieback of Ash particularly to land owners; and celebrate the ash trees' many uses, history, ecology, biology, cultural significance and folklore.

Ancient Trees Project – This project, with funding from Hampshire County Council, trained volunteers to identify and record ancient, veteran and 'notable' trees with over 150 trees recorded in five Hampshire parishes. Inspired by this work, volunteers came together to form another tree recording group in the Donheads, Wiltshire, during 2016-17 and undertook similar recordings.

Wildflower margins, West Woodyates - T Adams

Key issues

1. **Fragmented and isolated habitats –** This AONB has some of the best, last remaining chalk grasslands in Europe. While supporting a vast diversity of plant, animal and invertebrate species, its fragmented nature often denies those species the opportunity to flourish through expanding their range or populations. The fragmentation of priority habitats also extends to ancient woodland, other deciduous woodland, semi-improved grassland and lowland meadows.

2. **Wildlife species decline –** Many species of birds, butterflies, plants and mammals that were once common across the AONB, are in decline[26].
3. **Valuing the benefits we receive from the natural environment –** There is a need to demonstrate that the natural environment provides benefits of measurable value to society and everyone understands those values.

4. **Land management practices –** Intensive, or changing, land management practices can lead to a decline in wildlife and reduced soil and water quality.
5. **Unintended consequences –** generalised conservation measures, such as hedge planting, applied without attention to the local situation can compromise priority habitats and provide cover for predators.

6. **Limited means to conserve and enhance natural environment, habitats and species –** Through close working relationships with farmers and landowners over the years, the will to conserve certainly exists; the combination of time, knowledge or experience to undertake necessary work may not necessarily be present.
7. **Alien species, pests and pathogens –** These pose risks to native wildlife and increase uncertainty for all land managers.
8. **Climate change –** Ongoing climate change may pose a threat to the characteristic landscapes and natural beauty of the area as habitats evolve.
9. **Agri-environment schemes –** The management of many of the AONB's most valuable habitats has been primarily through agri-environment schemes with the aid of Government and EU funding. Options within those schemes have not always been adequately attuned to the needs of the landscape and habitats that they were designed to conserve. Funding has reduced over the years and the future of these schemes is now uncertain.
10. **Brexit –** The decision to leave the EU will have major ramifications for agricultural trade in the UK, which could affect the ways much of the AONB's farmland is managed and hence the wildlife that depends on it.

26 Hayhow D.B., et al (2016) State of Nature 2016, The State of Nature partnership.

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9.3. The chalk grasslands and rivers of the AONB, with their rare wildlife, are of international importance. A significant proportion of the woodland is of ancient origin and the area contains some of the best stands of ancient trees in Europe[27]. The extensive tracts of arable land support islands of rare arable plants and can be a stronghold for farmland birds. However, the areas of habitat favouring these important species are often fragmented and isolated. Wildlife habitats need to be big enough and sufficiently well connected for wildlife to thrive. Species need corridors to move through the landscape in response to a changing environment.

9.4. During the last few decades, management regimes that were focused on creating higher crop yields have led to habitat change and the loss of wildlife. Since the 1970s, the UK populations of many of our farmland birds have been in steep decline. In the south west, farmland bird numbers fell by 45% between 1970 and 1994; and a further 8% between 1994 and 2007.

9.5. Though the current rate of decline is not as steep as during the 1970s and 1980s, a short-term decline of 9% since 2010 shows that farmland birds, and especially farmland specialists, are still in trouble.[28] For example, Turtle Dove numbers have declining by 93% since 1994 and may well be at risk of global extinction. However the results from the Farmland Bird Project referenced above in Key Achievements show that with targeted management of sufficient habitats, reversing the decline is possible.

9.6. Even once common species are also suffering unprecedented and drastic declines. Hedgehog numbers have plummeted by over 50% since 1994, voles by 30% over the last ten years and dormice are vulnerable to extinction in the UK (see Appendix 29).

9.7. Populations of rare arable plants have declined dramatically over the past 60 years. They are the most critically threatened group of wild plants in the UK. The report, 'Assessing the Distribution of Rare Arable Plants in the Cranborne Chase AONB (2010)', identifies the important arable plant hotspots and will help refine targeting, surveying and promotion of semi-natural habitat restoration, creation and management.

9.8. The four County Biological Records Centres hold incomplete records for species presence and/or distribution in the AONB. Farmer clusters have been frustrated to date by their lack of knowledge of species present on their holdings. There is a need to actively encourage the training and involvement of volunteers in identifying, recording and mapping of fauna and flora to greatly improve the knowledge base across the AONB. (More in chapter 17).

9.9. The Lawton review of ecological sites and networks 'Making Space for Nature'[29] advocates for the creation of more effective ecological networks through the establishment of more, bigger and better quality wildlife sites that are better connected. This vision is a key aspiration in this Plan. The majority of the land needed to achieve this is currently under some form of agricultural, forestry or game management. It is, therefore, vital that habitat creation, enhancement and improved connectivity become a part of viable land management systems.

27 http://www.ancient-treehunt.org.uk/ancienttrees/findingthem
28 https://www.bto.org/science/monitoring/developing-bird-indicators
29 Professor Sir John Lawton et al (2010), Making Space for Nature: A review of England's Wildlife Sites and Ecological Network, Submitted to the Secretary of State, the Department for Environment, Food and Rural Affairs on 16 September 2010

9.10. The Government has stated in its policy paper 'A Green Future: Our 25 Year Plan to Improve the Environment'[30] that it will publish a Strategy for Nature and develop a Nature Recovery Network that aims to provide an additional 500,000 hectares of wildlife habitat. The Government has announced a forthcoming Environment Bill that will provide the legal framework reinforcing its pledge to leave the environment in a better state over the next 25 years. An Agriculture Bill is also due before the end of 2018 that 'will map the future of UK farming outside the EU'. At the time of writing this Management Plan Review, there were no further details.

9.11. The natural capital of the AONB, the elements of the natural environment which provide valuable goods and services to people such as clean air, clean water, healthy soils, food and recreation, is both very high in quality and quantity.

9.12. The Natural Capital Committee is an independent committee that advises the Government on the sustainable use of our natural assets. This committee reported that the elements of the natural environment that provide valuable goods and services to people are in long-term decline.

9.13. This decline will continue into the future, and is likely to accelerate, unless there is some radical departure from the approaches of the past[31]. This could include biodiversity net gain as a key planning principle or a landscape-scale / catchment-based approach to conservation[32]. It may also include widespread payments for the services the landscape provides (also known as ecosystem services) or the routine application of natural capital accounting.

9.14. Relatively straightforward agri-environment options such as tree planting can sometimes take place in inappropriate locations that can lead to a change in landscape character, the reduction or destruction of remnant grassland habitat and a reduction in the suitability of the area for ground nesting birds.

9.15. Evidence from the farmer cluster work, has highlighted the strong desire of landowners and farmers to help conserve and enhance the natural environment. However, effective and timely conservation work might well compete with priority work on the farm. Additional knowledge and experience of conservation techniques needs to be delivered through training opportunities open to farmers and volunteers and through practical input from conservation professionals, such as rangers, with the assistance of volunteers.

9.16. During consultations in 2010 towards a funding bid, the AONB gained strong anecdotal evidence that that the area is seen as a 'black hole' for volunteering, with communities, including many youngsters, welcoming any opportunity for countryside skills training and a chance to put that to use. Chapter 16 describes this in more detail but, in line with the aims of the Governments 25 Year Environment Plan, there is proven, latent demand from communities to become involved in the conservation and enhancement of the AONBs natural environment. Engagement with countryside management professionals could only assist in nurturing that demand.

30 A Green Future: Our 25 Year Plan to Improve the Environment Defra 1st February 2018
31 Natural Capital Committee, The State of Natural Capital, third report 2015
32 The AONB Partnership values and advocates the full use of paragraphs 174/175 of the NPPF that set out the principles to protect and enhance biodiversity and when determining planning application, including net biodiversity gain.

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9.17. There is an increase in the number of alien species, pests and pathogens entering the natural environment, with new ones being recorded almost monthly[33]. In May 2018, the Forestry Commission noted at least 30 new pests and diseases affecting livestock, and 15 affecting trees in the UK. These can have a devastating effect on the natural environment and livelihoods. The particular dangers to woodland from pests and diseases is growing, with Dieback of Ash (Hymenoscyphus fraxineus) and Oak Processionary Moth (Thaumetopoea processionea) two of the most recent examples. Dieback of ash may have a very serious effect on the ash trees in this AONB; whilst opinions vary, there is broad consensus that there is a reasonable chance that we will lose a significant portion of ash trees, a substantive loss to our landscapes and heritage. The damage caused by deer and Grey squirrels is also of increasing concern.

9.18. Climate change continues to influence the natural world. The evidence of recent years is that the AONB's climate is likely to become warmer and wetter in winter, and hotter and drier in summer. There will be more extreme weather events resulting in droughts and floods. Uncertainty and severity in the weather system poses very real threats to our way of life and our environment.

9.19. Although it is possible to reduce the effects of climate change with positive action, significant changes will still occur. This is because past emissions have already raised carbon dioxide levels in the atmosphere. The area needs help to adapt to the impacts of climate change in a way that helps to conserve and enhance the natural beauty of the AONB. Further climate change information and the range of mitigation and adaption measures are shown in Appendix 9[34].

Horses - Stephen Ward

9.20. Farming requires a profitable future to stay in business, sustain farming families, safeguard the environment and mitigate climate change. For centuries, land managers and farmers have shaped the landscape and environment, including its wildlife, soil and water quality, as they went about their work.

9.21. There is a need to develop more effective environmentally-friendly farming practices if wildlife is to thrive in the AONB. As Brexit approaches in 2019, Government has pledged to continue to support agriculture, albeit through revised and/or 'new environmental land management schemes' (NELMS). The Basic Farm Payment (BFP) received by the majority of farmers will be phased out over a number of years. It will be replaced by a new scheme that offers 'public money for public goods'; that is, undertaking work on the farm to specifically benefit the environment, and hence the general public.

33 In May 2018, the Forestry Commission noted 30 new pests and diseases affecting livestock, and 15 affecting trees in the UK. See http://www.bbk.ac.uk/geography/our-research/ecss/webber11.pdf

34 Responding to the impacts of climate change on the natural environment: Dorset Downs and Cranborne Chase (NE116), Natural England, March 2009 http://publications.naturalengland.org.uk/publication/52003?category=10003

9.22. Grazing is a key component of managing the landscapes of the AONB, particularly its nationally important species-rich chalk grassland and habitats associated with water meadows. In the absence of a UK-EU trade deal after Brexit, farm exports will face World Trade Organisation tariffs. This will have a significant impact upon agriculture. Livestock farming could be one of the worse affected sectors, as tariffs could increase consumer prices by as much as 50%[35]. Consequently, the viability of grazing our grasslands and meadows may reduce. However, livestock numbers may not decrease as grazing regimes develop as a part of an arable rotation.

9.23. DEFRA has recently extended pilot schemes in Norfolk, Suffolk and Yorkshire and indicated that it needs further innovative tests and trials of new agri-environment methods / techniques to help achieve the aims of the 25 year Environment Plan and respond to the Health and Harmony consultation paper: 'The Future for Food, Farming and the Environment in a Green Brexit'.

9.24. DEFRA has stated[36] that in advance of withdrawing the BFP, trials will test potential options and techniques that will help protect, conserve and enhance the environment and biodiversity. Test and trials will look to:

- Restore healthy soils
- Improve air quality
- Provide clean water, and
- Enable the countryside to teem with wildlife

9.25. The AONB is in a strong position to play a positive role in developing these new environmental land management schemes based on landscape character, and at a landscape scale. It has considerable and proven experience working with, and facilitating, self-help farm clusters to enhance farmland wildlife, habitats and landscapes. The AONB is very keen to collaborate with landowners and farmers to help offer a clear collective voice to shape future policies and support schemes. The AONB could be a test-bed for revised support schemes and new ways of working, delivering public goods for public money, whilst producing quality local foods for the nation.

Red tailed bumblebees - T Adams

35 https://publications.parliament.uk/pa/cm201719/cmselect/cmenvfru/348/348.pdf
36 See Department for Environment, Food and Rural Affairs (DEFRA), Health and Harmony: the future for food, farming and the environment in a Green Brexit, Cmd paper 9577, HMSO, February 2018

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Objectives and Policies

OBJECTIVE		POLICIES	
NE A	Sustainable ecological networks are established and maintained across the AONB.	**NE1**	Build and sustain a robust environmental records base for the AONB and its surrounds.
		NE2	Develop biodiversity permeability/connectivity mapping across the AONB to identify restoration and enhancement priorities that integrate with landscape character.
		NE3	Work with landowners, farmers, woodland managers and appropriate partners, to establish and enhance coherent and effective ecological networks at a landscape-scale through the development of further farm / woodland clusters or through new environmental land management scheme opportunities.
		NE4	Develop and seek resources to manage a long term programme of volunteer training and involvement in all aspects of environmental/ countryside management.
		NE5	Develop, and seek resources for, a programme of landscape scale biodiversity enhancement projects, to increase priority habitat within the AONB by 1,000ha over this plan period.
NE B	The benefits and services provided by the natural environment are understood and accurately valued by decision-makers at all levels.	**NE6**	Develop a natural capital accounting system for the AONB with partners that will increase understanding and provide accurate and appropriate data for better decision-making within this AONB.
NE C	Everyone, particularly business and community leaders, have a better understanding of the potential effects of climate change in the AONB and the actions they can take.	**NE7**	Work with relevant organisations, such as Councils and the NFU, on climate change adaptation/mitigation measures and promote good practice examples that are appropriate for the AONB landscape and communities.
NE D	Pests, pathogens, and invasive non-native species causing harm in the AONB are being effectively addressed.	**NE8**	Support partners and landowners to manage existing pests and pathogens, and increase understanding of the dangers from non-native species, pests and pathogens.

(Additional Information: Natural Environment Appendix 29)

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