



Local Spaces: Open Minds

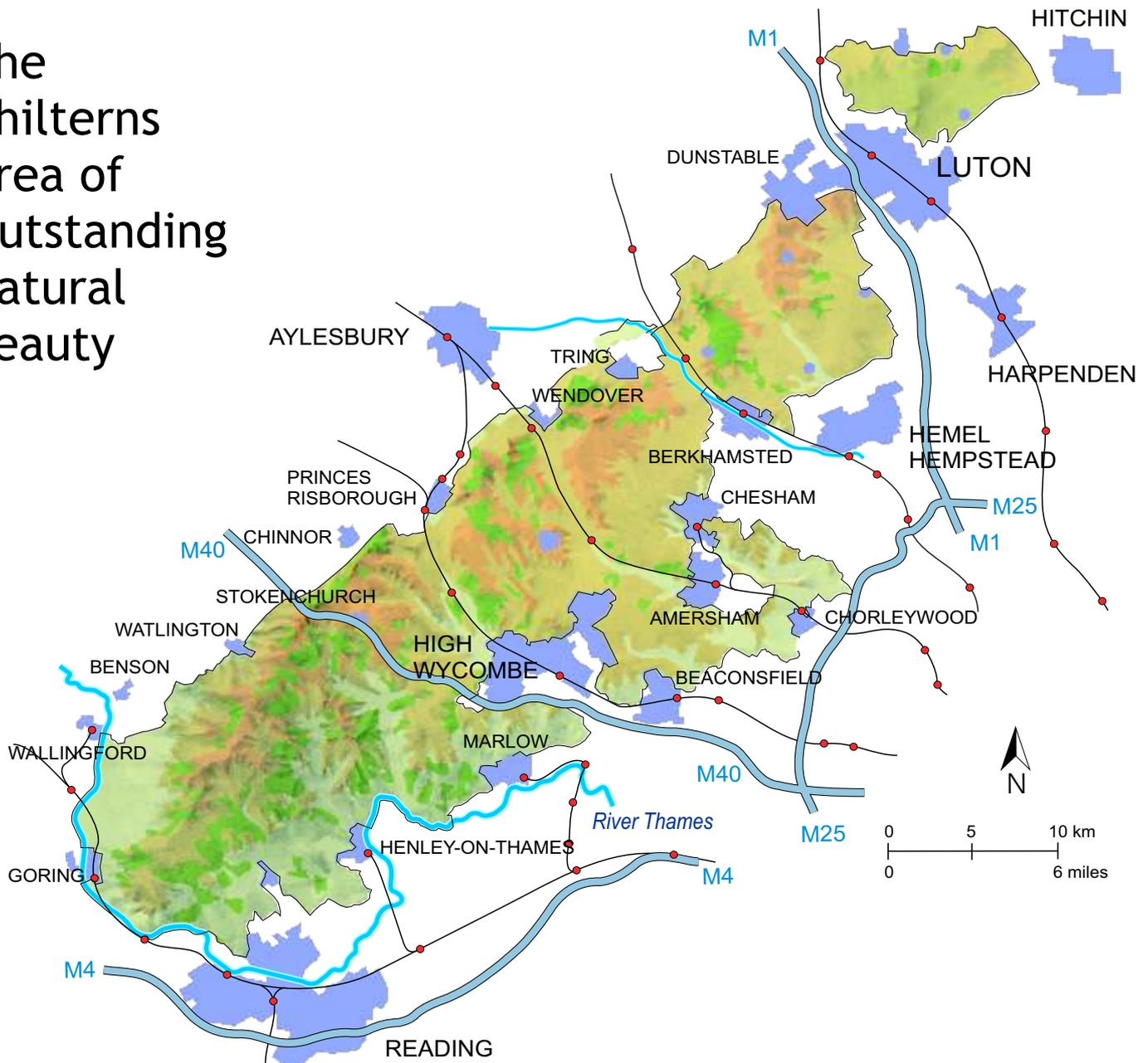
Inspirational ideas for
managing lowland commons
and other green spaces



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The Chilterns Area of Outstanding Natural Beauty



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Photographs:

Front cover main image - Children at Swyncombe Downs by Chris Smith
Back cover main image - Sledging on Peppard Common by Clive Ormonde
Small images from top to bottom -
 Children at home in nature by Alistair Will
 Hazel dormouse courtesy of redorbit.com
 Orange hawkweed by Clive Ormonde
 Grazing herd, Brill Common by Roger Stone
 Discovering trees on a local nature reserve by Alistair Will

Local Spaces: Open Minds

Preface

Determining and setting out a future for key areas of open space, like the 200 commons scattered across the Chilterns, is essential, but a daunting challenge for any individual. However, commons and open spaces are areas for collective action. Whilst many people will recognize their value and importance, that does not make the task of securing a sustainable future for them any easier.

The value of such places can be quantified in many ways; it might be their importance for health activities such as walking, riding or cycling, or more peaceful activities such as enjoying fresh air. The cultural and historical importance of these places has been explored in the companion book - *Our Common Heritage*. The biodiversity value of these places is well known but none of these attributes alone will ensure that these dispersed areas remain 'local open spaces'. Moreover, if you add all of these together you would not reach their true value. Imagine, if you can, that they are not there, and instead a housing estate or enclosed farmland or even an industrial estate takes their place. What would you have lost? Don't worry, this is not going to happen as legislation protects commons - but, more importantly, the people who have read and acted on the ideas set out in this book will ensure that commons and other local spaces remain open, used and treasured for generations to come.

This set of reports looks to the future and provides a refreshing look at how commons and open spaces can be enjoyed, treasured and valued. But it goes further than that because it offers some real insight into the key challenges facing commons across the south of England which are no longer in agricultural management. Each report encourages us to have an open mind about these local spaces, not to preserve them as they are, or as we think they should be, but to make them the centre of a thriving and buzzing community; places to explore and be creative, to bring meaning to our increasingly sedentary lives. Such places should not be managed from afar by people who have little or no local connection, nor lack the funds for management because of constraints on the public purse because the vital knowledge, skills, creativeness and determination all exist within the Chilterns.

The overall theme of the five reports is to bring a new meaning to these local spaces by extending the current experiences and showing what might be possible. Local spaces, like the 200 commons in the Chilterns, have survived many struggles and perils, and they still need to. The challenges for the 21st century in areas like the Chilterns is neglect, not abandonment, because these places are 'used' and in many ways 'valued'. However, the management they receive is often not local enough or sufficiently linked in to the life of the community. They are shared spaces and this requires us to work alongside other people in our community - and that is a very good thing with many benefits.

The first report, *Natural Neighbourhoods*, sets out on this journey by using examples from across the country of specific programmes that can help communities develop new ideas to help all take ownership of local spaces in a positive way. This rethink around local spaces is especially important for those with poor health and low levels of social interaction as they benefit most from access to high quality local open spaces. Where these interactions take place, the results can be transformative. In the past, common land has kept those most in need alive and provided a backbone to society. There is no reason why it should not do so again.

Natural Neighbourhoods

Nature's Classrooms

In *Nature's Classrooms*, Alistair Will sets out a challenge to all. While there is a great deal of opportunity to be outdoors, much of this activity is organised and many do little informal exercise. Local spaces, especially commons, provide an excellent alternative classroom. The report explores potential for science and nature, as well as art, history and geography. But it need not stop there as there is no reason why maths, physics and even philosophy could not feature as well. Local open spaces are a great place for projects that often combine a range of subjects under one topic, as the case studies show, especially the discussion on barriers and 'making things happen'. A good start is to know if you have a local open space and, if so, what is on or in your local space so, if someone asks you, you are able to give an informed reply.

Open Doors

The use of local spaces for recreation might sound obvious, but it would be a mistake to skip over the *Open Doors* report by Vicky Myers. Why, when we say that we value being in the natural environment more than ever, do we have the lowest physical and mental health? Because people are less sure of what they are 'permitted' to do, connecting and promoting recreational activity has been a core thrust of the Chilterns Commons Project. This can be easily replicated as it makes sense to join up cycle routes with bike hire companies and to provide maps of various walking routes on line or via phone apps. Areas like the Chilterns Area of Outstanding Natural Beauty, and commons in particular, will always be popular and that is a good thing; working together to enhance our enjoyment across all generations is crucial.

Changing Environments

In her second report, *Changing Environments*, Vicky Myers looks at the state of the natural environment and sets out a very convincing case as to the way the commons in the Chilterns need to be managed for nature. The climate is changing and nature, like us, needs to do adapt. However, much past human activity acts as a barrier so we need to think of these open spaces as part of a wider natural network. There is an important message here for local government and community groups as well as for us as individuals - nature needs room to breathe. Monitoring open spaces for a range of species (butterflies, newts or bumblebees) is a good indicator of the high value areas, and these are often commons.

Profit or Loss

In the final report, *Profit or Loss*, Victoria Edwards assesses the issue of funding the management of open spaces. As the other reports have made clear, management is critical to their future but it is also true that management costs in both resources and time. Finding suitable monetary arrangements to re-invest in them is therefore important. The wide range of ideas presented should be considered carefully by all. Valuing an open space according to its true worth means that people will pay if they can see that the money is re-invested back into the site management. Vigilant and persuasive people acting on behalf of the site will also make sure that any new development or similar activity has appropriate mitigation, and the open spaces within the Chilterns provide a good environment for this to take place.

All of these reports, written by national experts in their respective fields, have the same aim - to re-invigorate those living in the Chilterns and further afield to think and act positively about the local spaces around them. These open spaces, especially the commons, may be small and spread widely throughout the Area of Outstanding Natural Beauty, but that means they are closer to their local communities and collectively are more important. For them to stay important, people need to value them, not just use them, and act to enhance them. To find out how, read on and then enjoy them all the more.

Christopher Short

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and Chairman of the Foundation for Common Land

Local Spaces -

Natural Neighbourhoods

Duncan Mackay

Ideas to help communities create healthier, happier, greener places close to where people live through traditional common land principles and the creation of new commons.

Introduction:

Places of human habitation within or adjacent to the Chilterns Area of Outstanding Natural Beauty (AONB) come in all shapes and sizes from remote rural hamlets to large urban areas. All these places are home to communities of people living in local neighbourhoods in a variety of forms. All communities naturally want to live healthy and happy lives throughout all of life's stages; from young children to the very old. There are, however, places with established natural advantages for healthy living gained through an abundance of accessible green spaces such as common land, village greens, woodlands or parks. There are places that are not so fortunate in green space provision, but also places facing the new challenges of adapting to modern development pressures. However, some places, particularly those currently lacking in open spaces, are persistently worse off than others and have multiple disadvantages including poor health, poor education and rising poverty. The principles that make common land good (but also challenging) are its shared, multi-purpose functionality, its unique dual rights of landowner and commoners, its retention in the landscape as the last vestiges of open and unenclosed land; its remarkable wildlife and heritage values; and its public accessibility.

In this paper I want to introduce:

GOOD IDEAS from people in other places who are using new ideas and innovative thinking to re-purpose land to create better communities using some of the principles of common land

NATURAL CAPITAL illustrations from the recommendations and evidence of the Government's Natural Capital Committee that is asking for a 25 year programme of investment in re-purposing land

RETHINKING possibilities for green space land in the Chilterns including commons through self-help and new investment funding

NEW COMMONS creation and 'new commoners' for the Chilterns to continue the tradition of commoning appropriate to modern lifestyles and skills.

Context:

For those of you who already live cheek by jowl with a Chiltern common or maybe part of the National Trust or Woodland Trust estate, you will already appreciate these blessings bestowed upon you and how much that facility enhances your quality of life. Places that don't enjoy such facilities could be shown how this type of landscape can be designed into their lives too. Communities could be helped by an appointed partnership body such as the Chilterns Conservation Board working with the Health and Wellbeing Boards and Local Enterprise Partnerships to choose a suite of local solutions to apply to help cure economic, health and social wellbeing problems. It is now clearly proven through many studies including the Monitor of Engagement in the Natural Environment (MENE) that places with

more green space stimulate more physical activity and healthier populations ... and therefore, over time, help prevent the costs of ill-health due to the diseases of inactivity. MENE has reported that over 68% of those who visit the natural environment do so within two miles of home. In a highly urbanised (over 80%) country this creates a significant pattern of human behaviour and also a rural-urban fringe zone of opportunity. The Government's Natural Capital Committee, led by economist Professor Dieter Helm, said this in the introduction to its third State of Natural Capital report, published in January 2015:

“ There is now a great opportunity to improve the wellbeing and prosperity of both urban and rural populations and restore some of the natural capital that has been lost. This will enhance prospects for long-term sustainable growth and therefore bequeath to the next generation a set of properly maintained and enhanced natural assets. ” (www.naturalcapitalcommittee.org)

Stimulated by words such as these, this paper aims to help show that all communities have the potential to create a permanently healthier, happier, greener neighbourhood with a better quality of life for all through positive design and land use choices, particularly those derived from the principles and practices of traditional common land.

There are many ideas being tried and in use already, such as: new community designed accessible natural green spaces as part of development proposals; heat absorbing rural-urban fringe woodlands; open spaces for active recreation; food growing places; community orchards; places nearby to enjoy nature for mental health benefits; noise reducing coppice woodland near major roads; shading street trees; healthy walking infrastructure; off-road cycling and exercise networks; green gym circuits; disabled access routes; and places for quiet contemplation of nature, art and culture. Other conference papers will also consider more detailed aspects of these subjects. I will introduce, later in this paper, more details of the work of the Government's Natural Capital Committee where some of these ideas and how to fund them are expressed more firmly in its third State of Natural Capital report.

To change something or to go anywhere new you need some idea of where you want to go. The dilemma is often a plethora of choices or a number of restrictions ... commons are a good example of 'contested spaces' because they are owned by one party but used by another party and often regulated by a third party. Community choices introduce yet more exasperations and conflicts of interest but the prize for agreement could be permanent year-on-year improvements to the quality of life embedded in your settlement; the place where you live. Commons are a special unit of land that define the character of many parts of the Chilterns. They are connected by a golden thread to our ancient past but also, we hope to show, to a much greater positive future for the landscapes close to where people live. This potential is not limited by the geography of the scattered remnant pattern of existing commons but rather by the reasons that caused the commons to emerge in the first instance. If we can share this causal understanding more widely and apply these creative factors for modern times and future generations then we have a potential winning formula for success that could transform lives and transcend generations of future Chiltern dwellers. This aspect of 'new commons' will be explored in greater depth later in this paper.

GOOD IDEAS

The innovative focus of this paper is 'thinking differently' and 'helping yourselves' to drive through improvements from a broad palate of choices that local communities might not even be aware of, or do not have the means to articulate their desires to the multiplicity of authorities, landowners, regulators and controlling influences. So, if the MENE evidence

very clearly indicates, as it does, that the answer lies in 'green space close to where people live', the most direct solution is to negotiate with owners of such land, whether they are private owners or public authorities. This requires intensive focus on establishing community needs or wants, strong negotiators and persuaders to do something positive to achieve change in a relatively short time with a supportive professional culture of change. The prize is the provision of a permanent structural space for locally sustainable green economic gain (in all its forms, from better preventative health and mental health to micro-economic business ventures) and relentless optimism on behalf of local people through a renewal of that important civic vow - pride in the place you live. There are many examples of where this has happened already from wild places such as the Isle of Eigg which is now owned in common by a Trust for the people of Eigg, to the 'community right to bid' and the Neighbourhood Plan process enshrined in the current work of the Department of Communities and Local Government (DCLG).

Neighbourhood communities could choose to operate delivery models and services already being field-tested such as those used successfully by the Big Lottery funded **Sustainable Communities Programme**, the **Incredible Edible Todmorden** project, the **Neighbourhoods Green** project or the **Sheffield City Council-National Trust** project.

'Sustainable Communities' is a £12 million pilot to assess whether twelve communities (rural, suburban and deprived urban) can transform lives using £1 million. The pilot project covering rural Dorset is probably the one most aligned in character to the Chilterns. The programme has a focus of drawing ideas out of each community and testing the feasibility of the ideas in practical ways. The results of these differently challenged community solutions are visible on the Big Lottery Fund website (www.biglotteryfund.org.uk).

In Todmorden, on the Lancashire-Yorkshire border, the Lottery funded project 'Incredible Edible Todmorden' has inspired lookalike projects all over the world. At its conceptual heart is the new thinking that the whole of the public realm of the town is, in effect, a common. Thus all the streets and roadsides, public buildings, churches, schools, police and railway stations, municipal car parks, health centres and similar spaces are now growing food planted and tended by volunteers. The food is treated as a product of the 'commonwealth' of the town and is free for anyone to take and use. The project is well organised with legally negotiated rights and 'licences to plant' formally obtained from local authorities and property owners so that there is legal substance as well as vegetables, fruits and honey in abundance. The project is celebrated in the community with seasonal events and harvest festivals and has produced a catalytic effect on the quality of life of the whole place with a special emphasis on the energies of the young and the experience of the elderly population being combined to greatest impact. All the details are on the Incredible Edible Todmorden website (www.incredible-edible-todmorden.co.uk).

The 'Neighbourhoods Green' project idea works with landless tenants of social housing landlords to implement many of the wide range of new green space ideas chosen by the tenants with the agreement of the landlords involved. These estates bordering social housing are often described as 'green deserts' but are now being transformed into common productive spaces to be proud of that reduce petty criminality and are actively maintained by residents. This type of model is very similar to that of common land where rights are exercised over land owned by somebody else (www.neighbourhoodsgreen.org.uk).

In Sheffield, the National Trust is currently working on a £1 million project with Sheffield City Council and NESTA (National Endowment for Science, Technology and the Arts), funded by the Heritage Lottery Fund and Big Lottery Fund to investigate and pilot ways in which a cash-strapped local authority can work with a major voluntary body and local communities

Sustainable Communities Programme

Incredible Edible Todmorden project

Neighbourhoods Green project

Sheffield City Council-National Trust project

to transform its green spaces. This project was announced in 2014 as part of the 'Rethinking Parks' programme, but has the potential to create a new endowment to permanently transfer the City's green space estate either to the National Trust or a cooperative of local trusts or a partnership of city council, National Trust and local communities working together to agreed common solutions. This could become the model for similar cities facing difficult budget decisions but wanting to keep a good quality of life for residents. Manchester is facing the same dilemma and has already considered the creation of new commons in places poorly served by existing green space allocation.

The Department of Communities and Local Government is very focussed on 'community rights' to bid for or buy up key local community assets and has many examples, including recent 2015 funding announcements, on the Government website (www.gov.uk) of how these choices have been successfully actioned to help communities across the country.

In rural places similar things have been happening, led by Surrey County Council's disposal of its management of public green spaces, including many heathland and woodland commons, to the Surrey Wildlife Trust a decade ago. In January 2015, the Isle of Wight Council launched an initiative to divest its entire rural green space property portfolio into the control of a not-for-profit body. This trend for public land divestment is, therefore, growing fast. For a community like the Isle of Wight with a very strong rural geographical identity, this raises the possibility that a partnership of community, health and other interests might come together to bid. Such opportunities do not come along very often.

The recycling of public assets into the voluntary sector is only half the opportunity for change. The other aspect of this equation relies on having a strong relationship with public-spirited local private landowners. Some of these might be familiar names such as the National Trust, Woodland Trust or the Wildlife Trusts who generally grant public access to their property. All commons also have rights of public access under the Countryside and Rights of Way Act. However, the re-purposing or acquisition of more land close to where people live usually relies upon the opportunity to negotiate and complete a transaction with private landowners. In former times, Government agencies like the Countryside Commission were permitted to grant aid the acquisition of land within AONBs if it met certain criteria for access, heritage, wildlife and landscape value. In such ways many parcels of land, offered on the open market, were acquired by bodies such as the National Trust, for instance around the Hughenden estate in High Wycombe. This power still exists but is no longer seen as a priority for current budgets. There are several statutory provisions that allow for compulsory purchase of land, but these are usually matters of last resort and do not form part of this paper although they have been used in the past to reclaim large areas of the coastline of County Durham which is now a National Nature Reserve. In an amicable sense, however, the evidence is clear: places with good green spaces are healthier ... and, in due course, wealthier than those with a deficit of green space. If Chiltern communities want to secure a permanent belt of public green space surrounding their towns and villages for their future health and prosperity then now is the time to rethink and start negotiations with both private and public land owners.

Such models of community action, and any others devised, could be supported by active professional fora such as the England-wide Green Infrastructure Partnership created by the Department of Environment, Food and Rural Affairs (Defra), DCLG, local authorities, business, voluntary bodies and specialist professionals, and now led by the Town and Country Planning Association (TCPA), or other partnership bodies such as Groundwork or the Land Trust, working with Public Health England, local Health and Wellbeing Boards, Local Enterprise Partnerships, Local Nature Partnerships and Nature Improvement Areas. The Chilterns Conservation Board provides a focus of professional expertise dedicated to the

maintenance of the whole landscape of the Chilterns and everything related to it. Similar networks exist elsewhere in the UK and Greenspace Scotland is particularly advanced in its research and development. The UK has just been successful in bidding for £250 million from the EU Green Infrastructure Fund. This money can be used to support ideas to join up places that reduce our dependence on fossil fuels through cycling and walking, and include measures to create 'dual use' migration routes for fauna and flora. In 2014 the Deputy Prime Minister first announced, and the Chancellor of the Exchequer confirmed in the Autumn Budget Statement, that Ordnance Survey would spend around £3 million mapping every accessible urban green space in England, and not only making them visible on maps but also licensing computer software developers to create applications so that more people will be able to easily identify and use their local spaces for health and other activities.

NATURAL CAPITAL

There is a large and growing body of evidence gleaned from research across the UK and elsewhere in the world that confirms the direct connections between poor green space environments and inequalities in people's health, wealth and social lives (and vice-versa). This evidence offers a focus in helping communities attempt the difficult but necessary changes to permanently reverse this position by increasing the amount of local green space, improving the quality of any existing spaces and growing the uses and traditions of currently neglected or under-utilised places or other valued unenclosed spaces, such as Chiltern commons, and the green infrastructure between them.

Some of this global evidence has been combined with economic assessments and economic modelling by the Natural Capital Committee set up by Government as part of its new policies launched in the Natural Environment White Paper in 2011. The Committee has now produced three reports and will remain in operation until September 2015 to respond to the new government's policy initiatives. In its third and final State of Natural Capital report, published in January 2015, it reviewed a suite of cases that could form the basis of a natural capital investment programme. These investments would deliver significant value for money and generate large economic returns. First amongst the suggestions is:

“ *new woodland planting of up to 250,000 hectares located near towns and cities. Such areas can generate net societal benefits in excess of £500 million per annum.* ”

Amongst other high return investment opportunities are:

“ *urban green spaces which can provide enormous recreation values, benefitting millions of people in our towns and cities. They also offer significant potential for improvements in physical and mental health which in turn will reduce health expenditures and improve labour productivity. Reduced health treatment costs alone of £2.1 billion have been estimated.* ”

The report also lists peatlands, wetlands, fish stocks, urban air quality and farmland as targets for investment.

In terms of financing such investments, the report proposes a 25 year restoration plan with reliable and long-term funding arrangements. The report suggests

“ *Government controls many of the levers, be they taxes, subsidies, legislation or other, and will therefore be instrumental in ensuring the right incentives are in place. However, the private sector and civil society also have a significant part to*

play, because they own or are ultimately responsible for the majority of natural assets. ””

The report sets out a range of different funding options and levers available in order to secure improvements. These include: capital maintenance from public, not-for-profit and private sector asset owners; rents from non-renewable resources (oil and gas); compensation payments from developers; greater use of economic instruments (taxes and charges); elimination of perverse subsidies.

“ *In particular, the Government should encourage private sector owners and managers of natural assets to invest in the maintenance and improvement of those assets - using the innovative corporate accounting framework developed and tested by the Committee over the course of the past year. This accounting framework provides a basis on which the costs of sustaining and restoring natural capital can be evaluated and allocated to the private as well as the public sector. It creates a transparent means of sharing costs between corporations, landowners, local authorities, central government, non-governmental organisations and others and determining whether these parties have adequately discharged their liabilities in maintaining natural capital within their domains. ””*

One of the more interesting recommendations to Government is the creation of a 'Wealth Fund' derived from the depletion of non-renewable resources. This would have a parallel with Norway's Sovereign Wealth Fund established from revenue from its North Sea oil and gas fields and extensively used to support Norway's community projects and essential infrastructure.

The EU has also just launched the Natural Capital Financial Facility (NCFF) that will provide loans and investments to support projects which promote the preservation of natural capital, including adaptation to climate change. The total investment will be around €100-125 million for 2014-2017. The European Commission is contributing €50 million as a guarantee for the investments, as well as a €10 million support facility for capacity building, project preparation and implementation. The main aim of the NCFF is to demonstrate that natural capital projects can generate revenues or save costs whilst delivering on biodiversity and climate adaptation objectives.

Recipients will be public and private organisations, including public authorities, landowners and businesses. Projects will typically be between €5 million and €15 million. Finance will be provided to project developers both directly and indirectly through financial intermediaries.

Potential projects eligible for funding fall into four broad categories:

1. Payments for Ecosystem Services (PES): projects involving payments for the flows of benefits resulting from natural capital. They are based on the beneficiary pays principle: the beneficiary of an ecosystem service pays the provider for securing that service.
2. Green Infrastructure (GI): GI can generate revenues or save costs based on the provision of goods and services such as water management, air quality, forestry, recreation, pollination and increased resilience to the consequences of climate change. Examples are green roofs, green walls, ecosystem-based rainwater collection/water reuse systems, flood protection and erosion control.
3. Biodiversity offsets: these are conservation actions intended to compensate for the

residual, unavoidable harm to biodiversity caused by development projects. They are based on the polluter pays principle, whereby offsets are undertaken for compliance or to mitigate reputational risks.

4. Innovative pro-biodiversity and adaptation investments: these are projects involving the supply of goods and services, mostly by small and medium-sized enterprises, which aim to protect biodiversity or increase the resilience of communities and other business sectors. Innovation may relate to innovative approaches to ecological restoration/conservation or innovative business models such as harnessing ethical investments and adding value to goods and services through certification and standards schemes.

RETHINKING: POTENTIAL IDEAS FOR TRANSFORMATIVE CHANGES

This section of the paper deals with some ideas for transformation and how self-help solutions can determine a better future provided the conditions and opportunities are right. This aspect is particularly appropriate as local authority budgets are under strain due to competing priorities. This aspect should be self-empowering because, as local and national government withdraws from direct involvement, there are greater possibilities for communities to become leaders in actively determining the future course of local events and facilities. You will need to get to know and become honest friends with your local landowning community to drive this grass-roots appeal to benevolent philanthropy forwards. There is no 'one size fits all' solution, as can be seen from the contested space that many individual traditional commons represent with many different voices. Dialogue is key to future progress and professional facilitation is very often a useful tool in bringing different opinions together to find common cause and multiple benefits.

There are many different forms of activity and funding taking place already. This paper brings together some examples of these diverse activities in the concept of the 'natural neighbourhood' to offer people in many different 'communities of place' the opportunity to improve their future health and happiness taking a cue from the work of the Natural Capital Committee. This could be achieved by improving their immediate environment through new commons, accessible, multi-purpose green spaces and the diversity of uses, functions and traditions that can grow out of them. Critical to this permanent success is the benevolence of your local landowners because any creation of new green space will depend upon their willingness to loan, donate or sell land for it to be re-purposed by the community at large. This criticality was recognised long ago by Sir Robert Hunter and Octavia Hill, two of the founders of the National Trust. Hunter evolved his thinking from the ten years he spent fighting in the courts to prevent the wooded commons of Epping Forest from being felled and turned into arable fields. He must have vowed then never to waste another decade in providing people with green spaces and commons through lengthy legal process. In 1884 Hunter appealed to Victorian landowners to set up 'Land Companies' for places such as Birmingham to transform their peri-urban commons and 'wastes of manors' into places for public recreation as a sort of early green-belt around industrial cities. Octavia Hill, likewise, was keen 'to place objects of beauty within reach of the poor' in the form of fields and parks to enjoy nature and God's creation and to give people 'rights to air and exercise'. Much of this thinking was derived from a deadly crisis in public health due to urban domestic overcrowding, lack of green spaces, poor diet, bad sanitation and air pollution. We now have a deadly and expensive crisis in public health caused by the diseases of inactivity and bad diet leading to obesity. This crisis is currently costing the UK tens of billions of pounds annually but could be prevented in part by more green spaces, better quality green spaces and better used green spaces.

Help your communities create a healthy green-grid or mosaic or a mini but non-statutory green-belt comprising old commons, public green-spaces, community orchards, woodlands, allotments, wood fuel lots, coppices, village greens, ponds, space for wildlife, noise reducing and heat absorbing woodlands and new neighbourhood commons and open spaces within urban areas and around the fringes and hinterland of built rural settlements.

The concept of statutory Green Belts is not new; in particular Professor Abercrombie articulated the idea of a Metropolitan Green Belt for London in 1943 whilst the Second World War was still raging and pre-dated the Town and Country Planning Act of 1949. The primary idea was to limit the extent of urban sprawl and was based upon concerns raised by the lack of voluntary control exercised by cities in the USA to restrict their growth. The secondary purposes of Green Belts were to allow public space for recreation and for green landscapes to be retained to feed the population of the cities. In Abercrombie's time, London was still the main marketplace for deliveries of goods and materials that poured in from London's economic hinterland with every commodity from milk and butter to vegetables, fruit and salads being delivered daily into the city by road, rail and water.

London's Green Belt (LGB) embraces parts of the Chilterns AONB and has its western boundary near Reading. The LGB, therefore, currently protects a great swathe of land from unwarranted built development. Other Green Belts show similar characteristics. However, the unrealised potential for this and other Green Belts to become a recreational and amenity landscape as well as a producer of green economic commodities such as local food still exists under the currently established Act of Parliament. Local neighbourhoods could be stimulated by the work of the Natural Capital Committee to create their own 'mini-green belts' as a focus for the needs and wants of local people as well as allowing the potential for the hinterland to deliver the ecosystem goods and services the inhabitants require to improve their quality of life.

Help your neighbourhoods create an inter-connected network of mental and physical health-aiding, wildlife-friendly green infrastructure of paths for all users, safe-routes to school for children, traffic-free circuits for family cycling, routes for disabled users, space for horse-riders, wildlife corridors and better routes for walkers and dog-walkers. Some of these facilities already exist but do not always connect to the places people want to go. This is particularly important for children who might want to cycle to school but whose parents look in vain for completely safe cycling routes to school. Ask to join or add ideas to your Local Access Forum or contribute to the local Rights of Way Improvement Plan for your area. These institutions are provided by statute to improve the places where you live and rely upon people suggesting good, practical ideas. A £300 million Environmental Improvement Fund was launched by the Department for Transport in late 2014 to make the national transport network better for people and wildlife. It is possible that Local Access Forums and Rights of Way Improvement Plans will be asked for their ideas on how to spend this money.

Help your local corporations, businesses and philanthropic local people create a new healthier landscape for the future that will permanently reduce disadvantage. Philanthropic giving, or an investment in the public realm for permanent community benefits that will immortalise the good works of the people of the present, can occur in many ways: by giving land; granting new common rights; funding trees; planting orchards; making paths for all; new wildlife habitats; facilitating new thinking and bringing bright ideas together to create enthusiasm, enterprise, pride, happiness and satisfaction. National charity bodies like NESTA exist to support new thinking and bright ideas and also influence the thinking of major lottery funders as evidenced by the 'Rethinking Parks' programme but are always searching for well-considered propositions to do good things.

Help your local businesses and community entrepreneurs or new social enterprises to create a healthy new local green economy based on local products from the immediate hinterland or within areas of cities, towns and villages. The Chilterns were once famous for being the wood fuel supplier for London but adapted to change when cheap coal took over the market. Diversification led to furniture making and other wood-based products as well as water-cress and top fruit. Remnants of some of these economic activities still remain using the natural capital of the Chilterns, but many are struggling to adapt to the international pressures of a global marketplace. However, there is much unexploited potential for entrepreneurial investment in the local economy for natural products derived from this special place. A clear example of the rapid growth in new ideas is the establishment of vineyards, which are now clothing many favourable south-facing slopes of the Chilterns chalk hillsides. However, the potential for high value-added local enterprise need not stop at the fruit of the vine. It is a self-evident truth that one of Europe's greatest consumer markets, London, sits next door to the Chilterns and the agricultural industry enjoys a raft of planning and fiscal advantages that are not granted to any other industry.

Assist neighbourhoods to enhance their natural capital in the manner advocated by the Natural Capital Committee by investing in carbon-dioxide absorbing trees, shading trees and a cooling fringe to combat future expected temperature-related health impacts, particularly on old and young people.

Help people create happier places for cultural enhancement, environmental art, sculpture, outdoor theatre, performance, celebrations of local births, deaths, marriages, anniversaries, social events, heritage, history, picnics, play and new traditions to bring communities closer together.

Assist your communities to create spaces for outdoor education, forest schools, Learning Outside the Classroom, and ideas from Natural England's Natural Connections pilot programme, skills development, crafts, wildlife study, scouting, youth culture and happier children.

Greenery is good for you and the closer you live to green spaces the longer you live and the healthier you and your children are. If you have regular active contact with the nearby natural environment you will be fitter, your stress levels will reduce, diseases will be prevented and the community in which you live will become healthier too. Public Health Directors in local authorities should have good connections through local Health and Wellbeing Boards that will be linked also to Local Nature Partnerships and money from Local Enterprise Partnerships.

Children's health and developing their full potential in life especially for the most disadvantaged can be increased by exposure to the natural world from an early age. Fresh air and playing outdoors are the things that most children used to remember with the greatest affection in their later life. Indeed a survey by the RSPB has shown that it is only the over 50s who remember these great play freedoms of den building, making rope-swings, climbing trees and pond dipping as children. A national tragedy has occurred for several generations of adults who did not share these experiences as children because their territories were restricted by urban development or the fears of their parents worried about traffic or 'stranger-danger', or the growth of indoor, electronic games and increased exposure to multiple day-time TV channels. A research study conducted in Sheffield dramatically illustrated the reduction of play territory in three generations from grandfather who roamed far and wide on his bicycle as a child to the most recent child in the family who was virtually trapped in his garden.

It is a very sad fact that research shows that children in the UK are the unhappiest in Europe. Neighbourhood action could provide the impetus to reverse this and prevent generations of unhappy children becoming unhappy teenagers and unhappy adults by the provision of more semi-wild green spaces close to where people live where children can learn about the joys of nature and the heady experience of basic freedom. Aspects of this are explored in other conference papers. The Mappiness Project has found that people feel significantly happier outdoors in green or natural places and unhappiest where these are absent. Therefore, the rural-urban fringe, up to a mile or two from the built settlement edge, plus urban greens and parks are all spaces that have nationally important potential for human happiness (www.mappiness.org.uk).

The creation of new outdoor spaces that will lead to a better quality of life and reduce inherent disadvantages for both current and future generations is a strong and enduring key purpose. Without space to grow and develop community cohesion and a strong sense of place and belonging, there will not be a healthy community full of vitality and enterprise in the future.

'More green spaces; better quality green spaces; better used green spaces and green spaces close to where people live' is the mantra for active transformation in your community.

NEW COMMONS

Common land of the traditional type enjoyed in the Chilterns is a very old form of land tenure that sometimes pre-dates the Norman Conquest and feudalism; indeed vast areas like Dartmoor were common grazing for all the people of Devon in Anglo-Saxon times. Sherwood Forest similarly means 'shire wood' for all the people of Nottinghamshire to use as members of a community identified by geographical proximity. After feudalism ended, the area of commons which once covered much of the landscape in nearly every parish was severely reduced by the Enclosures. In late Victorian times the main founders of the National Trust and other notable figures of the age decided to save commons under threat of development in and around London. Their work saved many places including Wimbledon Common and Hampstead Heath as commons for the public to enjoy for ever. From these origins the National Trust set about receiving land and old buildings from philanthropists and donors to create the massive estate that the public enjoys today.

New commons follow this heritage and are a simple device to establish a set of rights suitable for people to enjoy their local landscape today in tune with modern circumstances. Commons and village greens are always land owned by somebody else over which other people have rights of common. In the new commons model new rights of common can be created for a particular piece of land by a benevolent landowner and given to certain local inhabitants (those capable of providing an appurtenant establishment). This piece of land then becomes a new common once the rights are registered and can be legally registered under Section 6 (5) of the Commons Act 2006. All registered common land becomes open access land under the statutory terms of the Countryside and Rights of Way Act 2000 and therefore available to the general public for health and other benefits.

Rights of common in the past were directly related to the economic aspects of the prevailing society, so rights of estovers (wood materials) and grazing were acutely important alongside the common law use of land for foraging wild plants as medicines and food. The modern equivalent of estovers is perhaps the collection of fallen branches and sticks for firewood use in log burning stoves or the making of charcoal. The modern equivalent of

grazing rights might be using sheep as conservation lawn mowers to help manage grasslands under orchards rather than as in the past when many commoners kept a cow to provide milk for the family and butter for the market. However, anything is possible through negotiation.

In new commons the 'common rights' could also be much simplified, and potentially established with a suitable lawful neighbourhood authority to create basic rights in gross for local inhabitants to take, for instance, fruit, firewood, or to forage. The technical appraisal of the feasibility of such legal issues is currently being undertaken in a Research Council funded project granted to Professor Chris Rodgers at Newcastle University School of Law.

Indeed, even if the legal process of creating new commons is not deemed suitable for local circumstances, then 'imitation rights' (faux-rights) to do the same activities but without the legal registration could be donated by benevolent landowners over any land. This could be seen simply as a means of engaging people in their place through purposeful activity and commitments to active volunteering to maintain the fabric of their local natural capital. It is also a benevolent mechanism that binds communities together with landowners and provides a simple tool to create places that everyone can understand, use and celebrate.

The Land Trust is currently investigating the potential of creating 'new commons' for community engagement and the permanent establishment of new traditions. It is searching for new opportunities to test the 'new commons' concept on land that it owns already in the rural-urban fringe. It intends to give rights to local voluntary supporters as well as giving general health and other benefits to wider neighbourhoods as a result of registration. Other charitable or philanthropic landowners could also follow suit. If Government Localism policies are trending towards support for local applications and neighbourhood-scale benefits from local community assets, then the concept of new commons and new commoners provides another positive tool. This could be applied through Neighbourhood Plans and the new local green space designation. The Land Trust is currently investigating the potential for two new commons or 'imitation commons' to be created in the Chilterns as well as others elsewhere (www.thelandtrust.org.uk).

Conclusion:

With a new philosophy, ideas, tools and skills, any community can make changes at any time. As the work of the Natural Capital Committee has shown, it might require a 25 year programme of investment that is dedicated to achieving major improvements in accessible green space provision, re-forestation close to towns and cities and other high economic return activity to make these changes. The prize is that these benefits will be gained by millions of beneficiaries and save the country billions of pounds per annum. Such far-sighted initiative provides the scope for land close to where people live to be re-purposed and for healthier, happier, greener neighbourhoods to be created by energetic and motivated communities working together in partnership with landowners, businesses, local authorities and the state. Endorsement of such a direction of travel by creating new commons for the future, utilising the good principles of traditional commons, could be a small but significant piece of the jigsaw.

Local Spaces - Nature's Classrooms

Alistair Will

www.outdoorculture.com

Introduction:

Unfenced

Human beings are essentially land mammals. We live off the land, making our homes and deriving our sustenance from the living landscape around us. Yet, in modern times, this reality is tucked away: food comes from supermarkets and nature is something we watch on TV. We glide past the world in wheeled boxes.

We no longer need to graze livestock or collect firewood near our homes. In the Chiltern Hills, the common land that once served such purposes is now often managed for wildlife and recreation. We go there to get our nature fix; to exercise our pets; to picnic and throw a Frisbee.

For much of the year, rural children are hidden away in special buildings close to lowland commons, where they are tasked with learning about the world outside their walls, the world beyond the borders of their concrete playgrounds.

As evidence of the benefits that children derive from learning in natural environments continues to mount, those who manage commons wonder how best to re-connect the commoners of the future with the green spaces that sustained their ancestors.

What can our common land teach today's children?

1 The Context of Outdoor Learning in 2015

“*Now is the time to get creative*”
Andy Robinson, CEO, Institute of Outdoor Learning

First, the good news. Children currently take part in an extremely wide range of outdoor learning activities, led by a healthy patchwork of diverse providers. We have residential centres providing adventurous 'Outward Bound' experiences that include canoeing, rock climbing and caving. Children choose to go orienteering, cross-country running and play team sports at school and at weekends. Cubs, scouts and brownies walk and camp in the woods: teenagers roam the countryside with giant rucksacks in pursuit of Duke of Edinburgh awards. Younger children run around with sticks at Forest School.

And yet this takes place against an undeniable backdrop of children's disconnection from the natural world. Normal life for most of the UK's children is characterised by indoor time, adult supervision, screens and an urban or suburban built environment. They are not allowed to climb trees and do not recognise individual bird or tree species. Children's access to nature is a lottery affected by wealth, class, ethnicity and postcode - and of course, the attitude of their parents, many of whom will themselves have been indoor children.

This young century has seen a flurry of research and reports that recognise children's lack of access to nature as a problem. Generally there are perceived to be two sets of undesirable consequences: one is the damage being done to children's physical, mental and spiritual health, while the second is the negative impact on the environment that arises from children growing into adults who do not care about the nature they never knew or loved in their earlier years. This conservation imperative will chime with those who care for green space, who wish to share the love of nature that brings them such pleasure with the generations that follow, helping to create the environmental stewards of the future.

Children at home in nature



A growing 'Children and Nature' movement has swung into action, spearheaded internationally by the writer Richard Louv, whose 2005 book, 'Last Child in the Woods', coined the term 'nature-deficit-disorder' [1]. Louv proposed a relationship between children's lack of natural experiences and the rise of childhood depression, obesity and behavioural problems - and made the case that access to nature was a public health issue as well as an environmental imperative.

There is now a substantial body of academic work evidencing the folk wisdom of the value of 'fresh air and exercise' to health and wellbeing. In the UK, thinkers such as Dr William Bird

made links between patient longevity and proximity to green space, and promoted the medical prescription of 'Green Gyms' [2]. The mental health charity, MIND, found that gardening and country walks were as effective as anti-depressant medication [3]. Hospital beds with views of trees turned out to have better recovery rates than those without windows.

It stands to reason that, whether by evolution or design, humans thrive in an environment that is shared by other plants and animals: the world to which we have been acclimatised for millennia. This is the 'Biophilia' hypothesis of Edward O. Wilson - that we feel 'the urge to affiliate with other forms of life' [4] - the presence of other species somehow magnifying our own humanity.

By extension, one would expect children to be well equipped for developing skills, knowledge and confidence in natural settings, and again, this is supported by recent research: children who spend regular time in natural environments outperform their peers in every subject, including the educational holy trinity of English, Maths and Science [5].

How is this impacting on state schools in the Chiltern Hills and beyond?

There is a growing awareness among professional educators of the value of outdoor learning. Nationally, this has been recognised in the 'Learning Outside the Classroom'

manifesto that led to the formation of an umbrella body, the Council for Learning Outside the Classroom, seeking to advocate outdoor learning within the education sector and to provide quality assurance for a wide range of educational activities.

There has been substantial recent growth in 'Forest School', a body of practice originating in Scandinavia, which prioritises child-led learning, free play and the development of social and emotional confidence in a woodland environment. Schools that co-opt the Forest School system, almost exclusively at pre-school and primary level, take a class outdoors weekly or fortnightly in all weathers, with sessions led by teachers or support staff who have undergone additional training in the Forest School approach to learning. Many environmental bodies and education centres now also lead Forest School activities on their sites as part of their offer to schools.

There is also a growing desire among many parents, often of a certain demographic, to balance their children's screen time with a more wholesome outdoor alternative. National campaigns such as the National Trust's '50 things to do before you're 11 ¾' [6] and the film 'Project Wild Thing' [7] have helped to focus public awareness, which in turn has some impact on the pressure that schools get from parents.

Even OFSTED, the government's much-feared watchdog for standards in schools, has endorsed the value of outdoor learning in raising attainment standards, when it is 'planned and implemented well' [8].

Given the contextual diversity of 'Learning Outside the Classroom' (e.g. it includes indoor learning in museums and arts centres), a more specific term for learning in green spaces has emerged - 'Learning in Natural Environments' or 'LINE'. One of the more prominent adopters of the term is the 'Natural Connections Demonstration Project' [9] funded by Natural England. This programme has set out to capture and communicate the impact of LINE by better connecting around 200 schools with environment sector partners in the South West of England. Concluding and reporting in 2015, this Natural Connections project hopes to provide even more compelling evidence of how outdoor learning can benefit schools and children. To an extent, it is also modelling the 'hub' concept of delivery, in which environment sector partners collaborate to present a unified 'one-stop-shop' offer to schools, as has already been implemented in music education.

There are difficulties in making outdoor learning happen on commons, which we will explore in more detail in Section 4. However, there is also a wave of public and professional goodwill towards opportunities for children to learn outdoors in green spaces: parental support, professional recognition of value, vehicles for quality assurance and a robust rationale that is supported by academic research as well as instinct. Those who wish to promote children's learning on commons in 2015 may find that they are pushing on an open door.

2 What Learning? Some Possibilities for Commons

Commons can be used for learning in many different ways. In this section we will look at some of their more obvious applications to children's learning, suggest a few less trodden paths, and consider what is distinctive about commons in comparison with other outdoor learning destinations.

One of the most established forms of nature education is the Field Studies approach, characterised by children making scientific studies of habitat and wildlife. As practised at

Discovering trees
on a local nature reserve

primary school level this is generally more about discovery and experience than it is about identification or classification. Activities such as pond-dipping and mini-beast hunting have a timeless appeal and, in high summer especially, can be endlessly good fun. With a good, healthy pond managed for wildlife, as is often found on commons, every session brings 'wow' moments as children find creatures from the depths that they had never even dreamed existed: dragonfly nymphs, newt tadpoles, great diving beetles, bloodworms, caddis fly larvae - the list goes on and on.



These activities are classic nature education, with children needing only a brief skills input from an adult leader before they are away and interacting directly with the environment, the leader then being free to move between the children, supporting, informing and questioning where appropriate. The activities require a modicum of equipment (nets, trays, bug pots, ID sheets, buckets etc.) and a little infrastructure, e.g. a safe pond edge from which to dip, but really can be a magical experience. Ponds can be problematic for schools to manage, given their lack of conservation expertise and frequent alarm at the inherent risks of children and water,

which maintains school demand for external sites that can offer this kind of service, especially where a pond is well-established and managed.

This type of direct nature study fits very nicely with the Science curriculum that came into force for primary schools in September 2014. This curriculum provides some explicit opportunities for green spaces as nature's classrooms, stating, for example, that 'Pupils should use the local environment throughout the year' and learn to 'identify and name common wild plants ... including deciduous and evergreen trees'. In every year of their primary schooling, children are required to build on their knowledge of plants and animals in Science lessons, including understanding the positive effects of nature reserves in Year 4, and the lifecycles of mammals, insects, amphibians and birds in Year 5. For conservationists and wildlife enthusiasts involved in the management of common land, this new Science curriculum provides a great basis for conversations with local schools about outdoor learning on their common.

Another influential approach to outdoor learning that continues to gain in popularity is the practice associated with 'Earth Education', 'Earth Walks' and 'Sharing Nature'. Developed in the 1970s by practitioners such as Joseph Cornell, this movement [10] focuses on the use of simple activities that connect children with nature through sensory, emotional and intellectual experiences - an approach of 'head, hand and heart'. Many activities originally derived from this movement are widely used with children by the education staff of wildlife trusts, environmental education centres and other conservation agencies: in the Chilterns I

have seen this practice promoted by the Berks, Bucks & Oxon Wildlife Trust (BBOWT), Natural England, Shortenills Environment Centre and Groundwork South.

A classic example of earth education is the 'Meet a Tree' game. Working in pairs, one child is blindfolded and spun round by their partner in order to disrupt their sense of direction, and then carefully led to a specific tree. The blindfolded child must use their other senses, primarily touch, to explore 'their' tree and get to know it as well as they can. They are then led away, via a circuitous route, and further disoriented before the blindfold is removed. Their next task is to look for and find 'their' tree, and explain how they have identified it by the features they noted when blindfolded. Joseph Cornell writes of children returning to a place where they have played this game a year earlier and literally dragging him into the woods to say 'Look, here's my tree!'

Because earth education is about individual experience and reflection, rather than the transmission of information from teacher to pupil, it is less dependent on the adults involved having specialist knowledge of wildlife or ecology than the field studies approach. This means it can be carried out more easily by volunteers from commons groups or visiting school staff, taking the role of guide and enabler rather than expert teacher. A quick internet search will reveal lots of fun activities to try with children: this is an accessible approach to outdoor learning that is easy to get started on, but of course it is also a deep and structured system that repays more detailed study and training, provided by bodies such as Earth Education UK.

In Section 1, I mentioned Forest School as one of the most significant movements in the UK's outdoor learning sector over recent years [11]. It is worth highlighting in more detail here, because in my view Forest School is one of the most effective vehicles we have for encouraging systematic outdoor learning across the UK.

Forest School is a system of education that combines outdoor learning, usually in woodland, with an emphasis on child-led activity and children's holistic development. Learning can encompass mainstream curricular skills and knowledge, together with outdoor living skills and an understanding of the natural environment and its conservation. There is usually a focus on children's emotional intelligence, self-esteem and independence.

Forest School practice emerged originally from Scandinavia: a general tendency towards outdoor learning began to be formalised for younger children in Sweden in the 1950s, and a model replicated in Denmark in the 1980s as part of an expansion of nursery education. In the 1990s, nursery professionals from the UK began observing the Forest School practice in Denmark and establishing it back home, initially in Somerset and then more widely. The phenomenon has since spread to every part of the UK, and is well known to schools in the Chilterns.

The characteristics of Forest School include an insistence on a professionally trained Forest School Leader (a Level 3 course costing around £1,000), as natural and wooded an environment as possible, and a regular, sustained block of time for children outdoors in almost any weather. Schools wanting to take on the Forest School model have three options: either they put their own staff through the training course, which is initially expensive but ultimately the most sustainable solution; or they hire a freelance Forest School Leader, which is an effective way of trying out the approach; or they work with a partner organisation that has an in-house Forest School Leader, and often its own Forest School site. Locally, this in-house service is offered by organisations such as the Chilterns Open Air Museum, Box Moor Trust and Groundwork South.

Although the commitment of training as a Forest School Leader will be prohibitive for most commons groups, there are clear possibilities for partnership working to set up and encourage Forest Schools on commons. For example, the use of commons as Forest School sites can be offered to local schools, who may be considering training for staff but be put off by the limitations of their own grounds; or commons groups could work in partnership with agencies that have their own trained Forest School Leaders to make a joint offer to schools of a peripatetic, local Forest School service on their common.

The strength of Forest School as a lever to engage schools with commons is that it systematises outdoor learning in terms that schools can understand. It comes with answers to questions of health and safety, remote supervision, adult ratios, impact evidence, pedagogy and philosophy of learning - many of the issues we will unpack when we explore potential barriers to outdoor learning in Section 4. Forest School has the word 'school' in it - it has gravitas and credentials for educators that other approaches to outdoor learning can lack. And most significantly, it involves a commitment from schools to arrange multiple visits to green space, on a weekly or fortnightly basis throughout the school year, yielding outdoor learning of a depth and scale far beyond the possibilities of one-off visits.

There are many other important curricular uses of commons by schools around the UK. Subjects such as History and Geography can support 'Local Studies' topics that benefit from visits out to green spaces for research and observation: the new Geography curriculum is explicit in its inclusion of Ordnance Survey mapping as part of the data that children need to be able to use, which is far easier to teach in wider open space than it is in school grounds. Equally, commons, with their historic purpose and place at the heart of many villages, can provide great opportunities for local History projects, especially if commons groups have an archive of historic photos or a history enthusiast among their ranks who can talk to children about how the land was used and managed in the past.

One learning activity that can take place on commons, and is often overlooked as a possible focus, is conservation itself: engaging children in practical conservation tasks outdoors, such as habitat creation, scrub clearance, thinning of woods or tree planting. These kinds of activity, as we have seen, can fit very nicely with the new Science curriculum for primary schools: a popular activity often done in school grounds, but transferable to commons, is the creation of 'bug hotels' - essentially dead wood habitat piles for insects. Often made of pallets, stacked a few tiers high and filled with sticks, twigs, grass, rocks and pieces of crockery, these features can become learning resources in their own right, with children able to tinker at their edges searching for bugs while the centre remains an undisturbed reservoir for invertebrates.

An alternative to building bug hotels is the burying of stag beetle buckets. This is a simple but rewarding activity that enables children to make a genuine contribution towards conserving an endangered species right on their doorstep. An adult will need to prepare a number of buckets by cutting holes around an inch or so wide through the sides and bottom of the bucket: children then dig holes, taking turns with a spade, insert the buckets and fill them with woodchip, before covering over with earth and turf, if appropriate. The rotting wood, kept at a more consistent temperature by being underground, provides a good location for the female stag beetle to lay her eggs in, and a food-store for the next generation's long larval stage.

Of course, any conservation activity such as this that involves the use of tools will need to be carefully risk-assessed and managed in order to keep children safe. Health and safety can be seen as a barrier to outdoor learning, but we will explore this and suggest solutions in more detail in Section 4.

Another hook for schools that might be worth exploring for commons groups considering involving schools in conservation work is the Eco Schools programme [12]. This is a mostly self-accrediting award scheme that is popular with primary schools, and has three progressively challenging levels, Bronze, Silver and Gold. Billed as 'the largest sustainable schools programme in the world', the scheme is centred on a child-led process of committee-forming, review, action and monitoring. The programme requires schools to work in partnership with the community beyond its gates, and one of the scheme's nine topics is biodiversity, which could underpin nature studies work in local green spaces.

The arts provide a fantastic focus for outdoor learning. From weather-inspired poetry and ephemeral Andy Goldsworthy-style environmental art to promenade theatre and documentary film-making, creative activities give a frame and a purpose to children's interactions with nature. Green spaces are perfect for large-scale dance performances; for making music that begins with listening to the sounds of the world; for learning to draw, which is really learning to look; for role-playing the great battles of history; for constructing brave new worlds out of sticks, leaves and mud.

Film-making
on West Wycombe Common



The arts can allow children to soak up the essence of a place, and make their own deeply personal response to it. Art empowers children to notice details, raise questions, make connections and follow their own interests, even as they work together. A creative process motivates children to learn. My personal education practice involves connecting children with nature through their imagination as much as through technology or their senses. Creative writing is a perfect example of an activity that is massively improved by green time: when children can

draw upon their own sensory experiences in their writing, their vocabulary is enriched and their desire to communicate is multiplied.

Commons can offer some distinctive opportunities for schools to engage in outdoor learning. As local open spaces, the proximity of commons to primary schools is a great selling point over destinations that require coach travel, while the scale and biodiversity of commons easily out-compete most school grounds in terms of learning potential. It is worth thinking about how children might travel safely between school and common, looking at footpaths and road crossings, in the earliest stages of planning a school project, as this kind of logistical issue can make or break a school project. But, as we have seen, being part of children's 'local' environment can be a compelling rationale for schools to focus on commons in relation to History, Science and Geography.

More than this, there is something fundamental about people's emotional and psychological connection with commons that can act as a hook for learning. The simple fact that it is their common can get children excited because they have an ongoing relationship with the

place, and this is a tremendous head-start in any dialogue with children about conservation, stewardship and the inter-dependence of humanity, landscape and wildlife.

Given commons' historical centrality to village life, there may well be regular community events or uses of the green space that can inspire and inform school projects. Annual celebrations such as village fairs, bonfire nights or beating the bounds can all provide opportunities for children to share their learning with the wider community through display or performance, which adds meaning and value to the work they do in school. Equally, of course, commons groups that work with schoolchildren are better able to reach the children's parents and wider families, and so outdoor learning projects can be an effective extra tool in recruiting new volunteers for work parties or other group tasks.

3 Case Studies

Braywick Nature Centre

On the edge of a local nature reserve close to the centre of Maidenhead sits Braywick Nature Centre, a facility with a well-established programme for schools. The centre is owned by the Royal Borough of Windsor and Maidenhead, and operated through a partnership with Groundwork South, a regional sustainability charity. Up to 40 primary school groups visit each year to learn about the environment, through a range of outdoor activities led by one of two full-time members of staff or a trained session worker.

The centre's most popular workshops derive from the Field Studies approach of learning through discovery. Children are first gathered in an indoor classroom, where bags and lunches can be stored, to be introduced to the day's activities and for the ranger leading the session to assess the current knowledge levels of the group. Once all equipment has been demonstrated and the children briefed, the group goes outdoors to access the habitats of the nature reserve.

Exploring pond life
at Braywick Nature Centre

The most used areas of the reserve for learning are its wildflower meadow and wildlife pond. Established over 20 years ago and managed consistently for biodiversity, these two habitats are the star attractions of Braywick Nature Centre. The pond, in particular, is a fantastic resource for outdoor learning: children use up to five sets of pond-dipping equipment, working in small groups to access the pond from dedicated paving slab 'stations' around its perimeter. The whole area is fenced to protect the children, wildlife and the public. The activity needs very little adult intervention, and is filled with awe and wonder, with children discovering amazing creatures from an underwater world that they never knew existed.



Autism and Nature at Kingley Vale NNR

The centre is funded in part by the local authority which owns it, and schools pay a modest fee, when visiting, towards the costs of staff and overheads. Additional school and community projects are supported by specific grant funding when available. Like many other environmental education centres, Braywick faces the challenge of seasonality in demand, with very few schools booking to visit in the winter months, despite this being a fascinating time of year to study nature. Braywick also boasts a secure Forest School area for woodland activities such as shelter-building and fire-lighting. To keep its schools offer relevant and diverse, the centre has recently developed new experiences for children such as film-making and creative writing inspired by nature.

Autistic Spectrum Disorder (ASD) is a lifelong condition that affects an estimated 0.6% of people worldwide. It is variously viewed, for example in clinical terms as a neurodevelopmental disorder without known cause or cure, or alternatively as a natural part of human diversity - a variation in functioning that should be more accepted by mainstream society. People with autism often find social interaction challenging, and while some have above-average intellectual abilities, others may have severe cognitive delays and learning difficulties.

Although there may be a consensus that experiences of nature are beneficial to children in general, there has been less research on its specific benefits for children with autism. Autism and Nature is a not-for-profit organisation led by Dr David Blakesley that is attempting to learn what it can about this issue, advocate the therapeutic value of nature for autistic people, and create resources to help autistic people, their families and associated professionals to get out into green space.

In 2013, Autism and Nature organised a number of visits to local green spaces by groups of schoolchildren with autism, to provide case study material for a brilliant series of countryside guidebooks for the parents and teachers of autistic children, distributed free of charge through their website [13]. One of these visits was made by a group of children from Palatine Primary School in Worthing to Kingley Vale, a National Nature Reserve in West Sussex that is managed by Natural England.

Kingley Vale is an impressive place, featuring a steep-sided valley and one of Europe's biggest remaining forests of ancient yew trees, some up to 2,000 years old. Around the yews is chalk grassland, with hilltops boasting Bronze Age monuments and far-reaching coastal views.

Palatine's visit was led by Joanna Carter of Natural England, accompanied by David Blakesley. A walk from the car park into and through the reserve was intended to allow the children to experience the site in their own time and in ways of their own choosing, with the children free to interact with the environment along the way. Joanna provided some very simple resources - a tarpaulin to sit on and eat lunch; some plastic bug pots and magnifying glasses - but mostly the children chose to spend their time physically exploring the trees around them, jumping off tree stumps, climbing low branches, investigating the leaf litter.

Teachers commented that the group seemed happy, harmonious and relaxed in the outdoor setting, when this is not always the case indoors. The children enjoyed the simple problem-solving and physical challenges of climbing, balancing and jumping in the natural playground of this ancient yew forest.

Common Art at Chorleywood

James Aldridge making art with families on Chorleywood common



Chorleywood Common is an extensive piece of common land, consisting of grassland, ponds, woodlands and even a golf course. The land is owned and managed by Chorleywood Parish Council for community recreation and wildlife conservation.

In the academic year 2013/2014, I produced an outdoor learning project on the common on behalf of the Chilterns Conservation Board, as part of the same Chilterns Commons Project that has commissioned this paper. The nearby Chorleywood Primary School was chosen to work with an artist called James Aldridge, who guided a class of children through an exploration of the common and led the children in various creative responses to what they found.

The project was also supported by Chorleywood Parish Council, whose Ranger, Andrew Goddard, gave the children a very memorable, hands-on introduction to the wildlife of the common.

Our intentions were that the participation in the project would help the children to learn about their common first-hand through creative outdoor learning, developing their own personal connections to this special place. James was particularly keen for the direction of the project to be guided by the children's own interests and desires: to use a process of child-led learning that is central to his practice as a participatory artist.

The children produced a wide variety of visual art during the course of the project, including ephemeral sculptures made on the common with natural materials, collages with recycled materials, sketches of wildlife and landscapes, and kept artist's sketchbook journals throughout the project. Finally, James brought images of the children's work and the project process together with comments from partners into an artist's photo book that tells the story of the children's learning journey. The book, and a display and photos from the project, was shared with the wider community at Chorleywood's popular Village Day. Copies of the book are available in Chorleywood Library.

The children's feedback from the project demonstrated an informed understanding of the common's modern value as a place for wildlife and for recreation, with a good overview of what kinds of plants and animals can be found there and the kinds of activity that local people can do there. The children also acquired a basic understanding of the land's historical function as a shared local resource.

It is clear that the children and staff at the school derived great pleasure from exploring this place in a creative and self-directed way, with James acting as their guide and facilitator, bringing an artist's enquiry and outlook as well as professional tools, skills and

Forest School at Naphill Walters Ash

Chiltern University of the Third Age

techniques. The art activities created a frame for the children's experience of the common, allowing them to develop their own personal relationships with the place.

“ I like the common more now. ”

Child participant, Chorleywood Primary School

“ It has had a profound impact on me too, as I endeavour to incorporate and implement a range of the skills and ideas that I have gained from working with James. ”

Hayden Dwyer, Class Teacher

In June 2009, I produced a conference on creative learning in the outdoors, entitled 'In Our Element'. A teacher called Gill Trickett from Naphill Walters Ash School attended, and was inspired by a workshop that introduced delegates to the essentials of Forest School. Gill returned to school the next day and persuaded her Head Teacher that this was something to take seriously.

With funding from the now defunct Creative Partnerships programme, the school put its first cohort of teachers through the Level 3 training course required to become qualified Forest School Leaders. The school and I approached the National Trust to seek their permission to create a Forest School zone within the Trust's Bradenham Woods, only a short walk away.

Five years on, the school now has six fully qualified Forest School Leaders, and hundreds of their pupils visit the woods on a weekly basis. The school is fortunate in having such a beautiful and mature beech woodland on its doorstep, with an owner that is publicly committed to the children and nature movement, and there is no doubt that the quality of the environment makes a big contribution to the children's learning.

Naphill Walters Ash School has been something of a Forest School pioneer in Buckinghamshire, where schools in general were initially slower to embrace the movement than in many other counties. The school has made Forest School part of its core practice, and now has well developed systems in place that make it a success, such that it frequently welcomes visiting teachers from other schools who come to find out how the practice works.

Forest School has become a central part of this school's identity and ethos, and features strongly in its communication with parents and the community. It has become 'Naphill and Walters Ash School: A Forest School', and parents have come to cherish the benefits this brings their children.

“ My child thoroughly enjoys Forest School. It is a very professional, educated and well-maintained experience for the children. ”

“ My child enjoyed a sense of freedom, learning about things in a hands-on way and has learnt that it is ok to get dirty! ”

Parent, Naphill and Walters Ash School

Not all learners are schoolchildren! The University of the Third Age (U3A) is a national movement, overseen by the Third Age Trust, that offers a very wide range of learning experiences for retired and semi-retired citizens. Groups are locally organised and led, typically serving around 250 people each, and emphasising the inherent rewards of learning for learning's sake, rather than formal qualifications or accreditation.

Many U3A groups offer courses in wildlife, natural history and conservation that are delivered in local green spaces. The Chiltern U3A currently has over 1,500 members, meeting at least monthly for general meetings and in specific subject groups. Subject groups within the Chiltern U3A that make regular use of green spaces include those that focus on country walking, gardening, wildlife, geology and ornithology.

The Wildlife group offers regular indoor talks and meetings, but most of its sessions are field meetings. Its recent programme has featured a guided walk along the River Colne to learn about its fish population, visits to Wilstone Reservoir and BBOWT's impressive College Lake reserve. Learners have been out on evening bat walks, and visited the Bernwood Forest restoration project, another BBOWT conservation initiative.

At a local level, the University of the Third Age is run entirely by volunteers, and supported by subscriptions from its members. One of the challenges it faces is meeting the substantial demand for places within some groups while relying on voluntary leaders: both Ornithology groups of the Chiltern U3A are over-subscribed and unable to accept new members.

4 Overcoming the Barriers to Outdoor Learning

In 2010, King's College London published some insightful analysis of the issues that can inhibit learning in green spaces, the research having been commissioned by Natural England [14]. By considering their findings in relation to the specific challenge of encouraging more use of commons as classrooms, we can consider how some of these barriers can be overcome.

To begin with, there are challenges for the environment sector in offering education opportunities to schools. These challenges include a lack of shared purpose and joined-up working between different organisations, which have tended to operate in isolation and compete for attention from schools rather than collaborate. One interesting aspect of the Natural Connections Demonstration Project in the South West is its trialling of a 'hub' model of delivery, with environmental organisations working together to speak to schools in one, co-ordinated voice, in response to the King's College report. In the Chilterns, there have been embryonic attempts to progress this agenda, most notably as part of the work of county-specific Local Nature Partnerships, although in most places, the impact on the ground has been very limited so far. Nevertheless, it remains a good idea for commons groups to reach out and network with one another and with the more established environmental education groups.

Further barriers to the development of outdoor learning can be felt particularly acutely by groups managing common land: a lack of targeted funding, the absence of paid staff, a lack of specialist teaching expertise, a lack of capacity and confidence among trustees and volunteers. The world of education, brimming with jargon, acronyms, pressures and initiatives, can be intimidating to outsiders. And the professionalization of the teaching world, so central to the raising of standards, can make schools feel like closed shops, with little room for those who are not education specialists. However, good teachers will recognise that external experts have a great deal to offer to children's learning - and as we discussed in Section 2, commons have a multitude of valid educational uses. The key to getting into schools is, of course, dialogue with staff, and an honest appraisal of the benefits that the common can offer the school. In Section 5 we will explore some ideas for taking steps towards achieving that dialogue.

It is instructive to consider why commons and other green spaces are not already widely used by schools: what are the barriers for schools that prevent them from engaging more fully in outdoor learning?

There are multiple answers to this question. The pressure to improve standards, particularly in English and Maths, can force less measurable learning experiences out of the school calendar, and makes for an intense and crowded timetable. Maths and English are taught every day in primary schools, which reduces the time available for subjects lower down the academic hierarchy, or the kinds of knowledge and experience that fit less neatly within the framework of subjects.

Interestingly, the whole shape of the school year reflects a bygone age when children spent most of their school holidays outdoors - two weeks to help with the lambing at Easter, and a longer break in the summer when most help was needed in the fields. The child labour market may have changed, but some of this Victorian orthodoxy persists in our education culture: sport and play happen outdoors, while academic learning happens indoors.

There is a gap between perceived barriers to outdoor learning for schools and the real reasons why it does not happen more often. The commonly held assumptions that schools are held back by health and safety concerns and fears of litigation are less significant than has traditionally been believed. Whilst it is true that there are systemic issues that can inhibit learning in green spaces, such as curriculum pressures, a lack of relevant initial teacher training and an historic orthodoxy of indoor teaching, research suggests that the most significant barriers are the specific attitudes, beliefs and knowledge of individual teachers and Head Teachers. It is this very human variation that produces such disparity in schools around the country: children's access to nature's classrooms depends on how their teachers feel about the great outdoors, the value they attach to fieldwork, their willingness to tolerate rain, and of course their own childhood experiences that have shaped their world view.

So teachers can be either enablers or opponents of outdoor learning within their school: what we need to do is to reach the enablers, going where there is energy and demand for outdoor learning, while challenging the barriers that are thrown up by its opponents. And of course, the biggest single human influence on the school's likelihood to value outdoor learning is the Head Teacher: their support or lack of it can make or break a project.

Other practical factors that can get in the way of outdoor learning include things such as toilet facilities: schools can have very differing policies on whether it is OK to go in the bushes, and teachers will have differing views on this too. Whatever those views might be, a lack of nearby toilets is likely to restrict school visits to a half-day session at most, before the group will need to return to school or find alternative facilities nearby. Of course, the group can always come back after lunch and a comfort break ...

Health and safety concerns are not a prohibitive barrier to outdoor learning on commons, as they can nearly always be addressed and surmounted by good planning. Children's health and safety is every school's first responsibility, more fundamental even than learning. As such, schools will have clear procedures for assessing and managing the risks of offsite visits, including the ratio of adults to children needed for different situations. Very few commons or activities that children are likely to do on them will be prohibitively dangerous.

A school visit to a common will entail exposure to certain risks that are absent from school grounds: as public open space, children may encounter adult strangers, unknown dogs, dog mess and unfenced roads. Commons may also feature open water in the form of ponds,

which in school grounds are always fenced and clearly edged, and trees that may not be regularly assessed for safety. The greatest risk is likely to be the children's journey to and from school, particularly if there are roads to cross.

The best practice approach for a less experienced group working with a school is to use their site-specific, local knowledge to inform the school's own risk assessment - although it is common that organisations, out of expediency, do their own risk assessments in addition to the school's document. In either case, writing a risk assessment is a process of using common sense to identify factors that could lead to harm, such as traffic, trip hazards, dogs, insect stings, falling branches, open water, getting lost, etc., and then agreeing who will do what to reduce those risks: for example, a school might identify pupils with an allergy to insect stings, bring relevant medication such as an epi-pen, and monitor those children more closely during activities. There are different ways of assessing the probability of harm and the severity of its impact, and some professionals use the format of a risk-benefit analysis: individual schools will be able to tell their partners what is required. There are very few risks that cannot be mitigated by control measures: electrical storms and high winds are the exceptions that will always put a stop to an outdoor learning session, but of course you can always re-schedule a visit. The common will still be there next week or next month.

Outdoor activities carry both risks and benefits



The case of nettles can tell us a great deal about our modern lack of natural worldliness - what you might call 'outdoor illiteracy'. Often, in my experience, children can be doubly misinformed, being both concerned about non-existent hazards like wolves and bears, and simultaneously ignorant of common hazards like nettles and brambles. Wherever there are nettles, there are children who will get stung by them. I often make a point in my introductions to outdoor activities to show

children nettles and remind them not to touch them, but it still happens. Teachers and adults who are accompanying children usually know that in theory, a good treatment for nettle stings is a dock leaf, but they are often unable to identify the dock plant, or try just rubbing the leaf on the skin, which has little effect. Passing on the secret of crushing a dock leaf between your hands to extract its juice and then dabbing the juice onto the sting is rewarding but time-consuming for an activity leader. To avoid having your whole session derailed, a good idea is to teach an adult and a few children the technique when it is first needed, and then direct subsequent patients to the newly created experts for treatment.

5 Making it Happen

In this section, we will explore some practical next steps for those who manage commons or other green spaces, and who wish to encourage outdoor learning on their sites.

A good starting point might be an audit of the resources available through the site and those who care for it. What habitats are present? What is distinctive about the site's wildlife and history? How might different areas be used for learning? What approaches to learning might the site be best suited to? Is any relevant equipment or material available?

Within your group, what expertise do people have that might be offered to schools? Who do you know that might be happy to talk to or guide a group of children? What aspects of the common are these people most enthusiastic about? What is their availability? Does anyone have any teaching or coaching experience? Are helpers happy to give their time on a voluntary basis, or is a fee required?

Make contact with other groups and agencies on your patch whose business includes LINE: learning in the natural environment (see Appendix). Share your ambitions: can they help? What do they know about the schools close to you, and the kinds of outdoor learning that are happening nearby? Do they have personal contacts in the schools you might approach, and might they make some introductions?

With this homework complete, contact your local schools. Generally, it is easier for primary schools to respond to this kind of opportunity. Try the direct approach of calling the Head Teacher to offer up your site as a space for learning - they may be receptive. Ask for a meeting, share your ideas and enquire about the school's needs. If you are offering people to help with outdoor learning, ask about how to approach child protection and checking for criminal records: it may be that the school can organise this on your behalf.

Of course, Head Teachers are incredibly busy people, and will have differing priorities for their school at different times. There are other ways into the school to consider, such as contacting the subject co-ordinators for Science, Art, Geography or English, depending on your offer. Some schools even have a dedicated co-ordinator for Outdoor Learning - the receptionist will know if they do. If a school takes part in the Eco-Schools programme, they will have a Co-ordinator for this within their staff, with a remit for sustainability across the school. Is there a Forest School leader or a nature enthusiast on the staff? Find the energy within the school and work with it.

Talk to teachers and ex-teachers you know and seek their advice. They may have contacts and suggestions for refining your offer to schools. Work through interested parents who might be advocates for you, either contacting the Head Teacher on your behalf or working through the Parent Teacher Association. Influence the school from within by becoming a governor: you may well already have a school governor or two among your ranks, as those who are most active in their communities often wear more than one hat. Use their influence to promote use of local green space to benefit children's health, wellbeing and sense of belonging. Are there local school governors who might also be recruited into your governing body?

Consider linking a school project with existing community events on the common, such as summer fetes, beating the bounds, bonfire night or any other annual traditions you might have. Might these events have opportunities for children to perform or present their work to the wider community? Children's work becomes more real and purposeful when it has an audience beyond their teacher and their peers. Think about what other agendas could be

brought together with education, for example interpretation: could children help to design leaflets, trails or notice boards for their local green space?

Try offering the school an assembly, where one of your group could give a ten minute presentation to the whole school about why their common is special. Schools are always on the lookout for interesting alternatives to leading their own assemblies, and for ways to bring the local community into the school. Use the opportunity to reach out to teachers, a captive audience seated around the hall, and invite them to bring their class to visit. Make sure that all the teachers know where to find your contact details.

If your group lacks the capacity or the skills to lead learning activities, it may be worth fundraising for a project that could employ a freelance professional, such as an artist with education experience, or a specialist outdoor educator. Your local providers of LINE (see Appendix) should be able to make suggestions or recommend people. The Community Development team in your local authority will be able to advise you on potential grants available and your eligibility: for most funding, you will need to be constituted as a not-for-profit group, with a written constitution and a bank account requiring two unrelated signatories. Artists and other freelance outdoor learning practitioners tend to cost between £150 and £300 per day: it is good practice to involve them in your project at as early a stage as possible, and allow some paid time for planning, preparation and evaluation in addition to delivery. You will also need to factor in the cost of any materials and equipment required.

Outdoor learning happens because people see its value



Another approach might be to dip one's toes in the metaphorical waters of outdoor learning, and to start with something simple and achievable. For example, encouraging local cub, scout and beaver groups to access your space after school, perhaps for a guided summer evening promenade, or an exciting winter night walk with star-gazing and a bonfire? Might the common be an alternative venue for their summer camping trip?

I very much hope that this paper has sparked some interest in its readers in trying to engage children with their common or green space, and

that you have found one or two ideas that might work for you. When I think back to the forests I explored as a child, the hills I climbed and the rivers I paddled in, and connect this with the rush of joy I still get from a carpet of bluebells or an ocean of stars, I realise how vital it is that we give today's children the same opportunities. They too, must seek to understand and enjoy this world while they have the chance.

“ *The best classroom and the richest cupboard is roofed only by the sky.* ”
Margaret McMillan

Appendix

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<http://webarchive.nationalarchives.gov.uk/20141124154759/http://www.ofsted.gov.uk/resources/learning-outside-classroom>
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<http://www.growingschools.org.uk/about/natural-connections>
- 10 Joseph Cornell: <http://www.sharingnature.com>
Institute for Earth Education: <http://www.eartheducation.org.uk/>
- 11 Forest School Association <http://www.forestschoollassociation.org/>
- 12 Eco Schools <http://www.eco-schools.org.uk/>
- 13 Autism and Nature www.autismandnature.org.uk
- 14 King's College London research, including Beyond Barriers report
<http://publications.naturalengland.org.uk/publication/4524600415223808>

Providers of LINE in and around the Chilterns

<http://www.chilternsaonb.org/products/downloads.html#education>
and download the pdf Learning Outside the Classroom in the Chilterns.

<http://www.wildoxfordshire.org.uk/directory/> Oxfordshire's Local Nature Partnership -
filter your search for educational education.

A few online resources for LINE

Creative Star Learning: A great blog from a leading outdoor educator
<http://creativestarlearning.co.uk/blog/>

Council for Learning Outside the Classroom <http://www.lotc.org.uk/>

Institute for Outdoor Learning (IOL)
<http://www.outdoor-learning.org/>

Nature Detectives: Lots of activities and resources from the Woodland Trust
<http://www.naturedetectives.org.uk/>

Field Studies Council: Lots of publications including animal ID sheets
<http://www.field-studies-council.org>

A few books to consider

Dirty Teaching: A Beginner's Guide to Learning Outdoors, by Juliet Robertson
<http://www.amazon.co.uk/Dirty-Teaching-Beginners-Learning-Outdoors/dp/1781351074>

The Stick Book by Fiona Danks and Jo Schofield
http://www.amazon.co.uk/Stick-Book-Loads-things-stick/dp/0711232415/ref=asap_B0034P5BDE?ie=UTF8

Understanding the Chilterns in Place and Time - A resource pack for Key Stage 2
<http://www.chilternsaonb.org/Products/19/20/Understanding-the-Chilterns-in-Place-and-Time.html>

All photographs by Alistair Will www.outdoorculture.com

Local Spaces -

Open Doors

Dr Vicky Myers

Summary

Outdoor recreation is the UK's favourite pastime. The accessible countryside in the Chilterns is fortunate to have around 200 scattered commons which form an integral part of the green space network. These commons range from strips of grass verge to rolling hectares of wildflower-rich grassland and woodland.

This report:

- 1 Reviews current statistics to establish that the majority of people value the natural environment and use it relatively regularly. However, the general state of the population's physical and mental health suggests that too many of us do not do adequate exercise or have enough contact with the natural environment.
- 2 Explains why common land is important for people and wildlife as part of the Chilterns green space network. It considers how countryside close to home (under two miles) comprises the majority of our visits to the outdoors and why common land has a valuable role for local communities. It discusses how visits to common land further from our homes are often made as common land forms part of a visitor attraction. We look at the role of these attractions in providing education and information for society. The report then provides an example of common land which could be developed for outdoor recreation as an accessible green space close to a growing urban area.
- 3 Gives examples of schemes which provide opportunities to improve the understanding and enjoyment of common land. These include Friends groups, healthy walking schemes and community events. These schemes benefit health and wellbeing, while also engendering community spirit and can be easily replicated on other commons.
- 4 Looks at balancing the needs of people and wildlife by discussing recreation management techniques such as zoning and community self-regulation schemes. It considers specific issues such as dog mess and litter, and suggests best practice in managing these problems. It comments on how best to handle controversial situations and avoid escalating conflict.
- 5 Delivers conclusions which confirm the importance of the Chiltern commons for the wellbeing of society, as venues for community events and as places where people can connect with the natural environment.

1 Background

Natural England's trend data on visits and engagement with the natural environment in England¹ highlighted that:

- 93% of the population agreed that having open green space close to where they live was important.
- 86% agreed that spending time out of doors was an important part of their lives.
- 68% of visits were to places within two miles of the respondent's home.

This shows that green space close to home is important for people, people value spending time outdoors and that the majority of our visits were within two miles of home.

¹ Natural England, 2011 - 2012. Monitor of Engagement with the Natural Environment (MENE). TNS Research International.

The Chilterns is one of the most heavily visited landscapes in the UK with 55 million leisure visits a year.² Visitors come to enjoy over 2,000 km of public rights of way including the Ridgeway and the Thames Path National Trails, the Chiltern Way and the recently opened Chilterns Cycleway. Its landscape is attractive to both local residents and visitors from London and surrounding towns, largely due to its accessibility. The Chilterns is served by four rail routes as well as the London Underground. There is a large number of organisations involved with managing recreation in the Chilterns; consequently there are plenty of events that appeal to a wide audience.

Outdoor recreation takes many forms ranging from walking the dog to mountain biking, or taking to the skies in a glider. The average visit lasts over two hours.³ While some seek peace and quiet, others want a hit of adrenaline. The range of motivation for getting outdoors is as wide as the list of activities on offer. Outdoor recreation offers isolation and interaction, relaxation and exhilaration.

1.1 Benefits of Exercise and the Outdoors

Evidence demonstrates that there is a positive relationship between exposure to nature and mental and physical health.⁴ The mental health benefits of being in a green environment include lower levels of stress, tension and depression, and increased self-esteem and energy levels. Meanwhile physical activity is known to reduce the risk of major illness, such as heart disease, stroke, diabetes, cancer, dementia and Alzheimer's disease.⁵ Physical activity also boosts self-esteem, mood and energy, as well as reducing risk of stress and depression. Combining these into outdoor exercise delivers the same physical benefit as an equivalent amount indoors, with the additional benefit that being in a natural environment can encourage people to be active more frequently. Enjoying the outdoors can also have the benefit of bringing people together in social activities which can alleviate isolation and promote integration.

Getting active outdoors also has a significant economic footprint. The Economics of Recreation report quoted that the total visitor spend was £21 billion in 2012/2013. Tourism is the UK's sixth largest industry and employs over 9% of the country's workforce.

1.2 Trends in the Health of Society

Physical inactivity is recognised as a serious health issue, with increasing levels of obesity, particularly among young people. The UK Chief Medical Officers recommend that adults should be doing at least 2.5 hours moderate physical activity every week, such as walking, and that children should be active for at least an hour every day.⁶ Our country is also experiencing increasing mental health issues, with one in four adults in Britain experiencing some kind of mental health problem every year. Both of these trends are concerning and create a considerable cost for our health and social care system.

Meanwhile, some of the most disturbing childhood trends have been directly linked to a lack of nature in the lives of the current generation of children, evidenced by a rise in obesity, attention disorders and depression.⁷ It appears that we have inadvertently been raising children without meaningful contact with the natural world.

² Tourism South East, 2008. Chilterns AONB Visitor Survey 2007.

³ Sport and Recreation Alliance, 2014. Reconomics.

⁴ University of Essex. www.greenexercise.org/Research_Findings.html

⁵ www.nhs.uk/Livewell/fitness/Pages/Whybeactive.aspx

⁶ Department of Health, 2011. Start Active, Stay Active: A report on Physical Activity from the Four Home Countries' Chief Medical Officers.

⁷ Will, A. 2015. Local Spaces - Nature's Classrooms. Chilterns Commons Project, another paper in this series.

The result of a generation with no connection to nature, combined with our busy lifestyles, has created a significant proportion of the population with little or no interest in the natural environment. Nearly 16% of those surveyed by Natural England only visit the natural environment twice or less a year.⁸ As a nation, too many of us are not taking advantage of the benefits of getting outdoors. There is a recognised need to provide us with incentives to take regular exercise.

2 Common Land: an Integral Component of Green Space Networks

There are over 200 commons in the Chilterns covering 2,100 ha and comprising 2.5% of the Area of Outstanding Natural Beauty (AONB). Common land forms part of the network of accessible green spaces which include urban parks, local nature reserves, rights of way and country parks. These green spaces provide us with great opportunities for open air recreation and outdoor education and enable us to form a connection to the natural environment and the countryside. These sites are also important habitats for our native biodiversity and, ideally, should provide a range of habitats that form core areas of habitat and corridor links to enable species to move geographically. Accessible outdoor space is also important to the local and national economy from income through tourism, retail and employment.

Over the centuries, the way we use common land as green space has changed. It used to be an essential part of our livelihood as pasture or water for our stock, wood for the fire, or materials for animal bedding. In our present society using common land is important for our mental wellbeing, to keep us physically fit and connect us with nature. It is important that we continue to use our common land resource so that it can continue to benefit future generations, either for enjoyment or to address future challenges, for example as allotments for sustainable food production.

2.1 Green Space 'Close to Home'

Generally common land in the Chilterns is used by locals rather than people travelling to it.⁹ Some of the many reasons for visiting local places close to home include:

- dog walking (61% of all visits).
- to relax and unwind (23%).
- to watch wildlife (11%).
- playing with children (11%).

Common land is always accessible to walkers, either via footpaths or direct access. However, commons are not always used to their full potential as people tend to drive to well-promoted sites, or to stick to a small number of well-trodden routes around their home. One reason is that people are not always fully aware of the range of access opportunities in their local area. One of the aims of the Chilterns Commons Project has been to promote using common land as countryside close to where people live, in preference to driving to sites further afield. To achieve this, the Project has led guided walks, created walking trails and put interpretation panels on sites.

The Chilterns is fortunate to have an extensive network of rights of way, common land, open access land and sites owned by bodies who welcome access such as the National Trust and the Forestry Commission. To help people find ways of linking paths and land in the Chilterns, the Chilterns AONB online interactive map can be used to look at the location of

⁸ Natural England, ongoing. Monitor of Engagement with the Natural Environment (MENE)

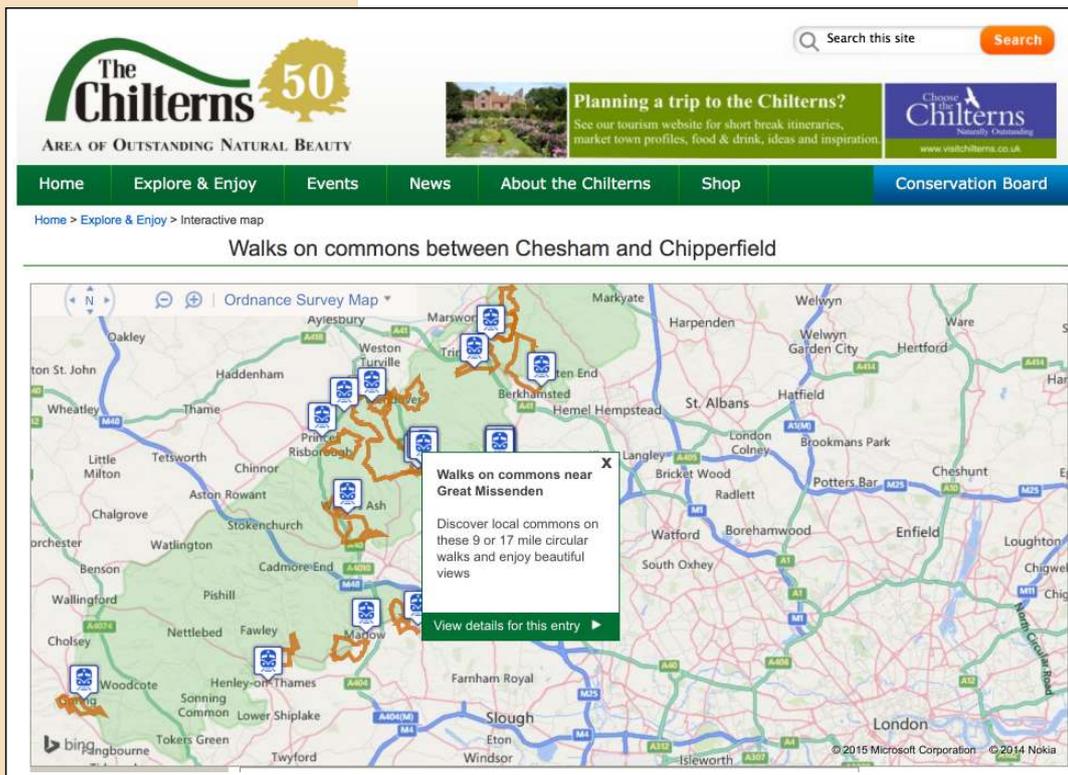
⁹ Roberts, C. 2013. Chilterns Commons Visitor Use.

commons, routes of guided walks and trails, and also land that links with rights of way and footpaths.¹⁰

2.2 Popular Areas of Green Space

Large visitor attractions will always bring in visitors from far and wide as they provide easy access to a feature which attracts our interest. They also make our visits easy and enjoyable by having facilities including safe parking, tea rooms, ice-cream, waymarked trails, cycle hire, play structures, benches and toilets. Well publicised visitor sites with direct access to common land include the Ashridge Estate and the Chilterns Gateway Centre on Dunstable Downs. Large visitor attractions will always be popular and will undoubtedly become busier as our population grows.

Fig. 1
Example of Walks on Commons
from Great Missenden station



The Chilterns Conservation Board encourages recreation in places that are easy to get to by public transport (close to or within settlements), or that have space for parking cars. Most common land in the Chilterns is accessible by car as there is some kind of parking facility. A selection of walks from railway stations is also publicised on the Chilterns interactive map, including walks to commons from stations in Great Missenden, Wendover, Berkhamsted, Chalfont and Latimer, or Marlow (Fig. 1).

Accessing the countryside on sustainable forms of transport helps with people's health and contributes to reduced levels of pollution and congestion. It is estimated that if 10% of all trips were made by bike, the NHS in England and Wales would save at least £250 million a year. Sustainable transport initiatives such as Cycle Chilterns which encourages people to walk or cycle rather than drive a short distance have already been established in the area.

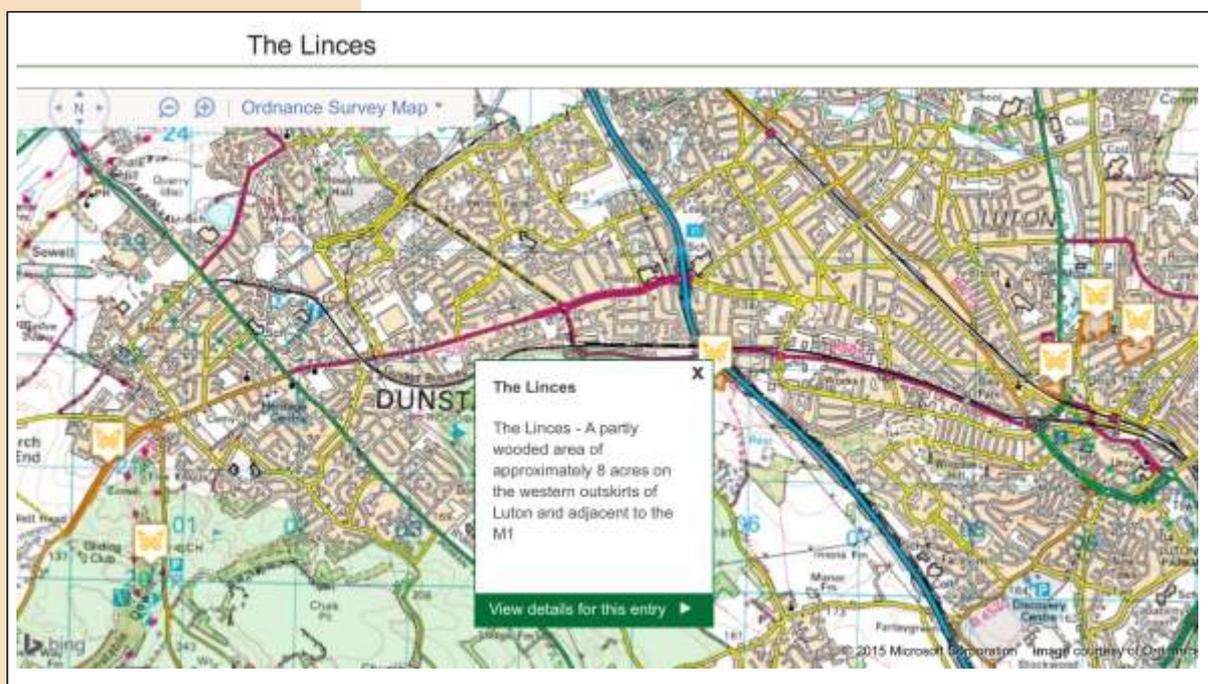
2.3 Planning for the Future: Common Land In and Around Luton

A diverse range of common land is found in and around the town of Luton. In the heart of the town, common land includes Bells Close, The Moor and Pope's Meadow which are well used by people for dog walking and for children's play, and have complementary infrastructure, such as benches, toilets and car parking. They also form a role in community life, hosting events such as fireworks displays and the Love Luton Festival. At the other end of the spectrum of common land, some of the wildest landscapes in the Chilterns are on Luton's doorstep, like Dunstable Downs and Galley and Warden Hills Nature Reserve, both of which are heavily visited chalk downland sites. These main visitor sites have an important role in informing and educating visitors to help people's understanding of the natural environment.

¹⁰ www.chilternsaonb.org/explore-enjoy/interactive-map.html

The main areas of new housing development around the Chilterns for the next decade have been identified by the Government as including Aylesbury, Dunstable, Luton and the Thames Corridor.¹¹ It can be anticipated that recreation is going to increase as the population grows with an increased number of people at main visitor sites, making these areas a critical part of our green space network. Meanwhile, there are other areas of common land which are presently rarely visited. For example, the Linces is a 6 acre common between Dunstable and Luton, adjacent to the M1 and close to the A505 (Fig. 2). Although it is well served with footpaths and bridleways, the Chilterns AONB website reports that it is rarely used by walkers but well used by local bike riders. This could be an area where a different approach ought to work, for example providing a bike park for young people living locally in towns which will continue to grow. As this site is also just outside the AONB boundary,

Fig. 2
Location of the Linces common



developments of this nature may take some of the pressure away from the Chilterns AONB.

The importance of green infrastructure in planning has been recognised with the Government's Suitable Accessible Natural Green Space (SANGS) scheme. The Linces common is the type of area that

could benefit through SANGS funding, providing opportunities to enrich green spaces like this to benefit people and biodiversity.¹²

3 Open Doors - Understanding and Enjoying Common Land in the Chilterns

Common land is highly valued by local communities as accessible green space which benefits individuals' health and wellbeing as well as contributing to community life. This section discusses its role in modern society, possible ways this could be enhanced and schemes which can be replicated in other areas.

3.1 Walking

Walking is the most accessible physical activity. It is free, gentle, convenient, low-impact and requires no special training or equipment. Guided walks, self-guided walks (following a route map) and health walks (discussed later) are all ways of encouraging people to walk more on commons.

Guided walks may be led by individuals, groups and organisations (Fig. 3). Events may follow routes that focus on or include common land. Guided walk programmes are run by

¹¹ Chilterns Conservation Board. Chilterns AONB Management Plan, 2014-2019. A Framework for Action.

¹² Edwards, V. 2015. Local Spaces - Profit or Loss? Chilterns Commons Project, another paper in this series.



Guided walk at Newnham Hill Common
(Photo: Clive Ormonde)

the Chiltern Society, the Ramblers and some 'Friends of' groups. The Chilterns Commons Project has produced a handout with guidance for people leading guided walks.¹³

Over the Chilterns area, there are many self-guided walking routes. These are available from a variety of sources, can be downloaded, picked up as leaflets or purchased from retail outlets. Online there are two main sources of walks which are from the Chilterns AONB website or from the Chiltern Society. The Chilterns AONB website has an interactive map showing walks which cater for all user interests and has responded to feedback by adding a selection of longer walks. The Chilterns

Commons Project has recently produced some self-guided walks linking commons.

Self-guided walking routes can be put together by anyone. For example, the Lane End Youth and Community Centre Walks produced the '10 Walks around the 5 Ends' leaflet which includes common land of Bolter End, Cadmore End, Lane End, Moor End and Wheeler End.¹⁴ This leaflet features walks of different lengths and abilities and was produced with some funding from the Chilterns Conservation Board. It is possible for Friends groups to create their own trails and walks around their local green space using a phone app created by the National Federation of Parks and Green Spaces. Details are available on their website.¹⁵

3.2 Friends Groups, Volunteering and Green Gyms

Volunteering, in its many forms, has become an established and valuable part of our culture and gives people the opportunity to take an active part in the conservation and management of their local environment.

Research indicates that having a 'Friends of' group can benefit common land by establishing a body of people who can help with its management while also actively engaging the local community. It has also shown that privately owned commons with Friends groups are more likely to try and find new solutions to issues and to have more of an internet presence.⁹ Therefore encouraging and working with Friends groups can be an effective and worthwhile way of managing common land.

In the Chilterns, it is possible to volunteer directly with many organisations or join one of the many specific volunteering groups that work in the area, including conservation volunteers, Friends groups and charitable trusts.¹⁶ Tasks that volunteers might carry out include pond clearing, scrub clearing, wildlife surveys, litter picking, office administration, managing websites, leading guided walks, stock watching, photography and wardening. The health benefits that are inherent in practical conservation volunteering led to the start of a 'Green Gym' movement, with Sonning Common Green Gym being the founder group.¹⁷

¹³ www.chilternsaonb.org/uploads/files/AboutTheChilterns/Commons/Guided%20walk%20checklist.pdf

¹⁴ Contact Lane End Youth and Community Centre. Tel: 01494 883878.

¹⁵ www.natfedparks.org.uk/create-a-trail.html

¹⁶ www.chilternsaonb.org/about-chilterns/volunteering.html

¹⁷ sonningcommon.tcv.org.uk



Volunteers working on Kingwood common
(Photo: Clive Ormonde)

and schemes. As such, they are good places to hold events for the community. Research has shown that community events are held on many of the commons in the Chilterns.⁹

The Volunteering England website provides help, advice and resources on all aspects of volunteering.¹⁸ Alternatively, for a Chilterns-specific guide to involving volunteers, the types of role they perform and what motivates them, the training resources section of the Chilterns Commons Project website provides a useful guide to the safe use and maintenance of hand tools.¹⁹

3.3 Community and Organised events

Common land forms an important role in community life and places where community spirit can be engendered. Commons can also act as a springboard to develop community involvement in projects



Nettlebed fete
(Photo: Clive Ormonde)

Events are hugely varied and have included fetes, themed festivals, concerts, nature walks, Guy Fawkes night bonfires, Easter egg hunts, circus, steam fairs, picnics, barn dances, carnivals, geo-caching, fun runs and athletics. Events vary in size from the large kite festival at Dunstable Downs to a broom making session by the local witches at Hawridge and Cholesbury Commons.

3.4 Walking for Health

Walking for Health is one of the simplest, longest-running and most effective national initiatives to encourage walking. Regional schemes comprise a series of short

walks led by trained walk leaders which aim to improve health by relieving stress, losing or controlling weight and strengthening muscles and bones. The scheme originated in the Chilterns and the area continues to have a very active health walk programme. Between 2012 and 2013 just under 44,000 people attended walks, a 5% increase over the previous year. Contact numbers for walk leaders are on the Chilterns AONB website.²⁰ Schemes which may fund health initiatives are outlined on the Walking for Health website.²¹

¹⁸ www.volunteering.org.uk.

¹⁹ www.chilternsaonb.org/commons/training-workshop-materials

²⁰ www.chilternsaonb.org/explore-enjoy/access-to-the-countryside/health-walks.html

²¹ www.walkingforhealth.org.uk/running-health-walks/applying-for-funding/funding-sources



Cricket at Greys Green
(Photo: Clive Ormonde)

way to engage communities to encourage their involvement in their local commons.

3.5 Sport

Many commons host some sort of sporting activities. On Chiltern commons, cricket is the most popular⁹ and other sports activities include football, orienteering, golf, rugby and fun run events. There are many other schemes and groups which have been established which get people active outdoors. For example, Regiment Fitness runs boot camp fitness sessions on Dunstable Downs and Chorleywood Common, while MCL fitness lead Nordic walks on Hyde Heath common.²² Research has shown that commons which are used for sports are also likely to hold community events. Organised sport is another



Stepping stone logs woodland play trail on Nettlebed common
(Photo: Chilterns Conservation Board)

3.6 Children's Play

Alastair Will's report in this series, Local Spaces - Nature's Classrooms, talks about the importance of children playing outdoors for children's physical and mental wellbeing.⁷ Nature play can involve climbing trees, playing on logs, scrambling over boulders or simply playing with stuff left lying around. The Forestry Commission provides a practical guide to facilitating nature play which provides simple and cost effective ways to facilitate natural play from easily sourced materials.²³ In October 2014, a woodland play trail was opened on Nettlebed Common. The Wildwood Den on Ashridge Estate is a natural playground made from wood from the estate. With two large sections of very old oaks taking centre stage, the whole project was completed by National Trust staff and volunteers.

3.7 Allotments

It is recognised that allotments have an important role in modern, urban life. These benefits include exercise, the supply of affordable fresh vegetables, increased biodiversity, green space and the potential for educational and therapeutic benefits for some sections of the community. The role of allotments in providing sustainable food for cities is still small and it will be interesting to see where it takes us in the future.

3.8 Websites, Interpretation and Digital Technology

The provision of information and interpretation is a vital means of increasing understanding and enjoyment of the Chiltern commons.

Information on all of the Chiltern commons can be found on the interactive map as places to visit.¹⁰ A survey of 34 commons typical of the Chilterns found that only four (12%) had

²² www.regimentfitness.co.uk and www.mclfitness.com

²³ Forestry Commission, 2008. Nature Play. Simple and fun ideas for all.

their own website.⁹ These commons were privately owned and/or had Friends of groups who had created their websites, including the Friends of Studham Common, Friends of Naphill Common, Nettlebed and District Commons, and Hawridge and Cholesbury Commons. Websites run by Friends groups provide an easy way to disseminate information about management, wildlife, history, ownership, responsibilities, also latest news and events. They enable communities to easily learn more about their local common and to be kept up to date with news about it that may affect them.

On-site interpretation is also important since it increases public awareness of commons and provides information for locals and visitors. This could be information panels, leaflets, various types of digital technology or a name board. The growth of smart-phone technology and QR codes will continue to provide new and exciting possibilities for interpretation. More information on relevant digital technology is available on the Chilterns Commons Project website.¹⁹ To improve interpretation, information boards have been installed at 12 commons as part of the Chilterns Commons Project.

4 Recreation Management - Balancing Wildlife and People

All human activity has an effect on the environment. Effects can be positive or negative and people see things differently depending on their perspective. Land managers and farmers know their sites thoroughly, often see all visitors to the site and recognise the potential for cumulative effects and remember the, generally few, bad experiences with the public. Those involved in outdoor recreation may visit many sites in pursuit of their activities, might see the potential for their presence to have an effect, but may not be aware of the cumulative effects and remember the generally enjoyable experience of visiting a place and experiencing nature. Each needs to understand the other's viewpoint. Scientific research helps us understand the actual effects of outdoor pursuits on the natural environment. Common adverse effects include: disturbance of animals, often made worse by dogs; trampling; erosion; wildfires; litter and intrusion on others' enjoyment through incompatible activities. Effects may be more acute when the activity is a big organised event, as the result of a concentration of people in one location intensifies pressure.

Most commons in the Chilterns have reported some kind of problems, conflicts or issues surrounding the use of their common.⁹ The main issues were litter, fly tipping, parking and dogs. Here is a summary of issues and approaches taken by land managers. Some commons have been named as examples.

- Litter. The most frequent solution is to pick it up rather than prevent it. A few commons have litter bins and some employ someone to litter pick (Boxmoor and Dew Green). Other commons do litter picks with volunteers (Nettlebed and Studham) or hold an annual volunteer event (Hawridge and Cholesbury).
- Fly tipping. Incidents are dealt with by the council (Hawridge and Cholesbury). Other commons have put up notices; opened out areas to increase visibility (Nettlebed); blocked off access to potential problem location (Ley Hill) and carried out regular inspections.
- Travellers. Generally physical means of keeping them out include bollards (Cadmore End), bunds and posts (Downley). Otherwise quick action to move travellers on with the police (Ditchfield and Booker) or issuing fines or threatening letters (Hawridge and Cholesbury).
- Dogs. Notices highlighting 'on lead' restrictions did not work well (Chinnor Hill). Hiring a reserves officer to implement dogs on leads has proved more successful (Warden and

Galley Hills). Just introducing dog bins to reduce dog fouling was not successful until it was accompanied by an information campaign (Studham).

- Mountain bikers. If individuals can be identified, they can be fined (Hawridge and Cholesbury). Working with bikers to create some form of a management plan and insurance (Nettlebed).
- Anti-social behaviour. Work with the police and local council (Roughdown and Boxmoor). Keep the car park well maintained to avoid car break-ins (Chinnor Hill). Paid reserve officer (Warden and Galley Hills).

Natural England has produced a Good Practice handbook which gives further guidance on how to manage recreation in National Parks, of which some techniques could be applied to common land.²⁴ Most problems can be managed with the right type of recreation management. Techniques for recreation management are discussed below.

4.1 Site Management Strategies

At a site level there are many strategies and actions that can be used to manage conflicts between recreation and conservation, or between different recreational uses. These problems are not always easily resolved as established sites evolve over time and management generally responds to the effects rather than stepping back to look at the whole picture. It is also important to link management to biodiversity on a landscape level. For example, routes for people can also be corridors for species and this may also affect the vegetation on site as scrubby areas and trees may keep people on the desired paths and tracks. Guidance on how to evaluate and respect the communities' interests in commons when managing the land is provided by the Open Spaces Society.²⁵

Ensuring the safety of visitors to common land is the responsibility of the managers and owners, so it is important that some form of visitor risk management underpins the management of sites. Quantifying these responsibilities has been established by the Visitor Safety in the Countryside Group which has produced clear guidance that defines acceptable levels of risk.²⁶ Their publication 'Visitor Safety in the Countryside' gives advice to help make decisions on how to manage trees, ponds, cycling, horse riding and children's play areas. The guide has been endorsed by the Health and Safety Executive as giving 'sensible, proportionate, reasonable and balanced advice' to landowners and managers. Measures included in the guide can be achieved while enhancing the natural environment.

With dog walking making up 61% of visits to the countryside within two miles of home, most of the examples given here are to do with dogs. However, the techniques used and case studies given can be applied to any recreational activity on any site. Here are some examples of strategies used to manage sites.

4.1.1 Zoning

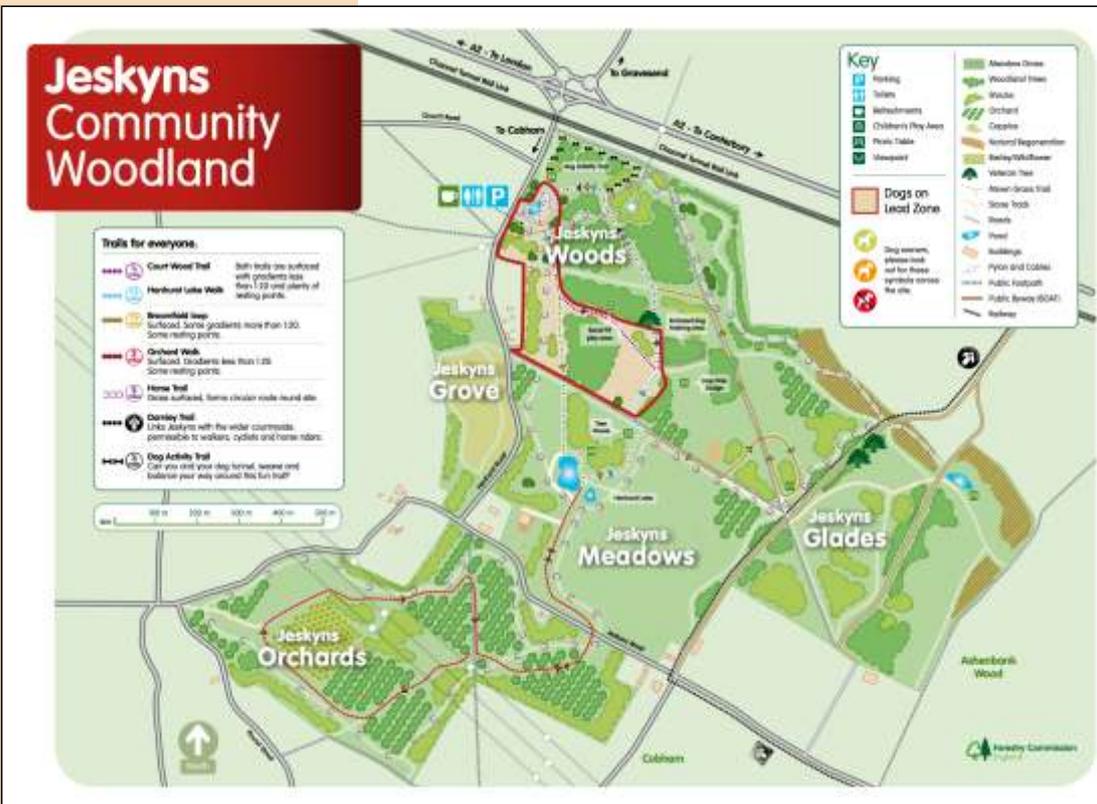
One of the key strategies for managing protected areas is through zoning. This involves recognising smaller zones or units within areas, each with prescribed levels of environmental protection and certain levels and types of use. Zoning helps to provide choice for visitors as well as clarifying future intentions. It can be used to separate different recreational uses in space and time, or to protect the natural environment from visitor disturbance.

²⁴ Countryside Agency, 2005. Promoting outdoor recreation in the English National Parks: guide to good practice.

²⁵ Ashbrook, K. Hodgson N, 2010. Finding Common Ground, Open Spaces Society.

²⁶ vscg.co.uk

Fig. 3
The site map shows how the site has been zoned

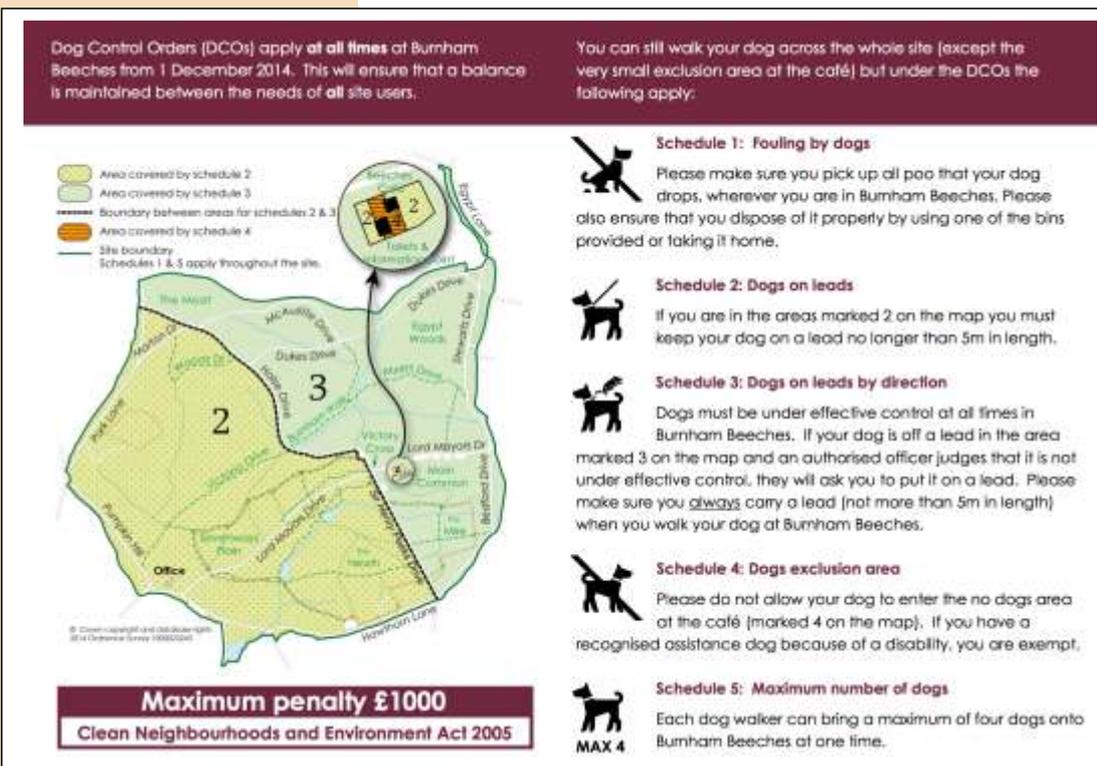


EXAMPLE: Jeskyns Community woodland, near Gravesend, Kent carried out community consultation to create different user zones. The Forestry Commission recently ran a consultation exercise to assess the community's views on introducing a zone where dogs had to be kept on the lead on part of the site. Having received visitors' feedback, they are now

running a one year trial. The zone includes the café and the main children's play areas. Meanwhile, the dogs off leads zone is directly accessible from the car park so dog owners do not need to put them on the lead until they reach the café. To help dog owners understand the different zones, a traffic light system has been introduced where green is off lead, amber on lead and red means no dogs (Fig. 3). This has enabled the site to be easily signed on the ground. It is clear dogs are welcomed on this site as there is a dog activity trail and enclosed dog training area.

Fig. 4
Map of Burnham Beches

EXAMPLE: Burnham Beches, west of London, has recently introduced a dog enforcement schedule due to the high number of dog walkers at the Beches and the high proportion of



'out of control' dogs disturbing the enjoyment of other people.²⁷ The schedule was not in the interest of conservation of the SSSI and was a last resort having tried other techniques which had failed.

The Dog Control Order states that half the site allows dogs on leads: in the other half, dogs can be walked off the lead unless asked to be put on the lead (Fig. 4). Signage, maps and fact sheets have been produced to help dog walkers understand the changes. Dog owners must pick up after their dogs and

²⁷ www.cityoflondon.gov.uk/things-to-do/green-spaces/burnham-beches-and-stoke-common/visitor-information/Pages/Dog-Control-Orders.aspx

each dog walker can bring a maximum of four dogs to the Beeches at one time. There are penalties for committing an offence from £50 to £1,000. Before the Dog Control Order was introduced, the landowner had tried to manage the problem of too many out of control dogs by introducing a dog walking code (which included an agreed definition of 'effective control'), enforced bylaws, and had conducted surveys to investigate the impacts and number of dogs using the site. They had also taken positive measures by running dog friendly events, providing a specific dog friendly seating area in the café and widely promoted a dog walking code.

Burnham Beeches is common land, owned by the City of London and managed by a registered charity. It is a mixture of ancient woodland and heathland which is grazed by cattle and ponies. It is a Site of Special Scientific Interest, National Nature Reserve and Special Area of Conservation. The 220 hectare site has around 220,000 dog visits each year.

4.1.2 Regulating Access

Access can be regulated by various means including site design, route planning and signage. The provision, location, style and quality of site infrastructure are key components of the management of visitors. The infrastructure also gives an indication of the quality of management and can be an interface between organisations and visitors. To protect the wilderness qualities of some sites, they may not need any infrastructure at all as people services, such as a ranger or community volunteer presence, can deliver much better results.

EXAMPLE: Dinton Pastures Country Park, managed by Wokingham Borough Council. The Council decided to provide a specific access point for dog walkers to enter the country park path network which was away from the main visitor area, to help reduce problems from path fouling and conflict with other users. Providing different access points for different user groups meant that dog-free zones for wildlife and on-lead areas around café or shop were better respected. The new access point provided dog walkers the opportunity to exercise the dog and let it go to the loo, before entering the main visitor facilities. Specific parking for dog walkers was provided and signposted as visitors entered the site. To encourage dog walkers to use the facilities, the car park was landscaped to feel welcoming and safe. The new access also gave a venue for a dog walking community notice board.

4.1.3 Self-Regulation, Voluntary Codes and Voluntary Agreements

The acceptance of responsibility for conserving landscapes and wildlife by recreational users themselves is one of the most effective conservation measures for changing visitor behaviour. However, in many cases, it works best as one of a series of measures.

EXAMPLE: The 'Green Dog Walkers' (GDW) scheme by Falkirk Council provides a non-confrontational, friendly way to change attitudes about dog fouling. Dog owners joining the scheme sign a pledge to: clean up after their dog; carry extra dog waste bags; be happy to 'lend' a dog waste bag to those without and be a friendly reminder to other dog walkers to clean up after their dogs. Green Dog Walkers receive an arm band or collar to show they are a GDW.

The first stage of the campaign aims to start shifting public attitudes so that it becomes socially unacceptable to leave dog fouling. Once this attitude is embedded, the second stage hopes for a reduction in dog mess. The results in the Falkirk area have been promising and the scheme is now nationwide. The greatest advantage of this campaign is that volunteer groups and dog owners are the ones 'on the ground' running the scheme and gathering pledges. This scheme is easy to replicate as they have produced a GDW toolkit

Fig. 5
Take a Walk in the Woods -
Dog Code. Forestry Commission

and handbook with advice on how to run a campaign which community organisations can use to become official groups.²⁸



EXAMPLE: Codes of Conduct. Consultation between the Forestry Commission and the Kennel Club resulted in a code of conduct for dog walkers (Fig. 5). The Kennel Club logo is a sign of their support.

4.2 Specific Issues

4.2.1 Dog Walking

According to the Kennel Club, there are around 6 million dogs in the UK which need regular exercise making dog walkers the single biggest consumer of access to the countryside. Over half of the visits to the countryside within two miles of home are with dogs. Research has shown significant benefits of dog ownership for physical and mental health, in a large part because dogs facilitate regular exercise and visits to the countryside.

The Kennel Club works to minimise the negative impacts caused by the behaviour of dog owners by improving mutual understanding and respect of rights and responsibilities between dog owners and land managers.²⁹ The Forestry Commission and Kennel Club have worked together to look at techniques for positive engagement with dog owners and developed a balanced approach to rights and responsibilities. Overall they stress that it is important to make it easy for dog owners to do the right thing, but, if all else fails, then land managers need to impose restrictions, always using the lowest level of restriction needed to achieve objectives. The examples below are on the

Forestry Commission website³⁰ unless otherwise indicated.

Site Management and Design

- Dog agility trails for people to exercise their dogs, improve their skills as a dog handler and have fun. This also helps to concentrate activity on one area.
- Dog bins. The Ashridge Estate in 2014 responded to visitors' requests to install dog waste bins on site. They hope to help cover the cost of providing the bins by asking visitors to make donations.
- Canine community notice boards at access points.

Engaging Dog Owners

- Dog pit stop. This is simply a table set up on site with free dog food or dog treats, together with a staff member or volunteer available to talk to dog walkers. It is also an opportunity to hand out leaflets or fill in questionnaires. This is an effective and

²⁸ www.falkirk.gov.uk/services/bins-rubbish-recycling/rubbish-litter/dog-fouling/green-dog-walkers.aspx

²⁹ www.thekennelclub.org.uk

³⁰ www.forestry.gov.uk/forestry/inf-d-7rjhcf

low cost way of engaging dog owners which creates rapport and increases understanding. Dog walkers can start to feel they are partly responsible for the site and valued eyes and ears on the ground.

- On site dog training. Facilitating regular outdoor sessions with a local dog trainer is a cost effective way for dog owners improve their control and encourages peer pressure for responsible behaviour.

Information and Signage

- Good signage clearly states the behaviour that is requested and why (Fig. 6). It is: welcoming, makes the request in a positive manner and provides other options for activities or behaviours that are not desirable; has been checked and tried with dog owners; provides a contact name and telephone number; avoids imprecise terms like 'close control', 'be responsible' and 'sheep worrying'. A good example of a poster is Forestry Commission 'Get a stick and flick it'.

Fig. 6
Forestry Commission poster



- Publications which are interesting to dog owners have the most potential for influencing their choices and behaviour. Pembrokeshire County Council produces a 'Holidays with your Best Friend' booklet which has reduced fouling and conflict on beaches. The Council promotes it to visitors before they arrive so they can make positive choices about where to go and what to do. For general messages about dogs in the Countryside, the 2005 leaflet 'You and Your dog in the Countryside' provides dog owners with dog training, games and first aid advice, interwoven with responsible ownership messages.³⁰

Dog poo

Local circumstances will dictate the best approach, but specific guidance suggests the following:

- Consulting with dog owners at an early stage will give you a valuable insight into what happens and why. 'Flick it off the path' may be the best option away from intensively used areas, playgrounds, etc. It also reduces maintenance costs and landfill of a biodegradable product.
- Where different rules apply, e.g. pick it up and bin it, the boundaries and reasons must be clearly explained.
- Waste bins need to be clearly marked if they are for poo.
- If mixed in with general litter in a normal litter bin, bagged poo need not be classed as special waste.
- Bins need to be placed where they are most needed, not just where they are easiest to empty. Placement can be used to attract dog walkers towards certain areas.
- In 'pick up' areas, consider making poo bags available in dispensers and visitor centres, etc. They can be printed with key messages.

Disturbance to Wildlife and Stock

While it is unusual to have stock grazing on Chiltern commons, elsewhere it is not unusual to have stock grazing in areas with very high public use. The vast majority of dog owners will follow advice and keep their dogs under control. The Grazing Animals Project highlights the problems associated with uncontrolled dogs worrying livestock and disturbing wildlife and suggests a few measures which can help including:³¹

- The welfare of grazing animals is higher where the public are well informed. Cattle and ponies are better able to cope with dogs than sheep and goats.
- Sheep and goats are more successful where the site is open and the dogs and stock can see (and avoid) each other.
- Llamas or alpacas can be used within a flock as guard animals.
- It has been shown that animals which have grown up in the presence of dogs are less likely to be that bothered by them when grazing sites have public access.
- The grazer can assess the temperament of animals and removing any that do not react well to people and dogs, thus avoiding putting out over-inquisitive individuals.
- Dog walkers can help in a number of ways, including as volunteer shepherds and as advocates for the site and for responsible dog walking.

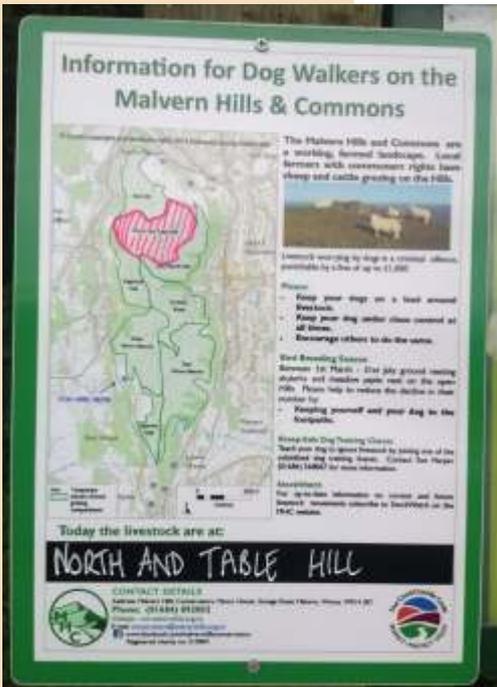
EXAMPLE: The Malvern Hills are grazed by sheep and managed by the Malvern Hills

Conservators. The Conservators initially considered a Dog Control Order to help manage dogs in the area, but they decided to take more positive and proactive measures which have lessened conflict and bad publicity and, most importantly, significantly reduced problems of dogs worrying livestock. Livestock are rotated to different areas around the site, so site managers started a weekly 'Stockwatch' item informing people where stock will be. This specific, regularly-updated information about grazing locations is used to inform dog walkers on the ground, in newspapers and on the home page of the website (with an opportunity to subscribe to receive updates).³² Outdoor dog training was made more accessible, motivating owners to more effectively control their dog and enjoy more freedom. Drop-in vet health checks provide an opportunity for engagement and communication.

4.2.2 Litter

The Joint Waste Service team at Chiltern District Council spends approximately £2.1 million a year keeping the streets clean, removing fly posting and clearing graffiti. They offer to help organised litter picks by providing equipment and support for groups. Volunteers are a great source of help with clearing up litter. Groups already carrying out litter picks in the Chilterns include Hedgerley Conservation Volunteers, National Trust Volunteers on the Ashridge Estate and at Dunstable Downs, and Lane End Conservation Group.

Online support for people who want to take action against litter is available through websites such as 'Litter Action'.³³ This website provides support to the growing number of



On site information for dog walkers stating where sheep are grazing.

31 www.grazinganimalsproject.org.uk/animal_welfare.html

32 www.malvern hills.org.uk

33 www.litteraction.org.uk



Fig. 7
Example of Love Where you
Live Poster

individuals and community groups tackling litter problems across the UK. Local action groups can register, find other groups nearby where you live, or use the information pages for help on running a litter group or organising clean-ups. It has everything needed to run a litter pick event including advice on where to acquire litter picking equipment, blank posters to advertise events, draft risk assessments and ideas for where to get funding. This website is evidence of the considerable contribution volunteers are making all over the country.

Keep Britain Tidy also has a range of free materials which cover all types of litter-related problems, with great posters and slogans³⁴ (Fig. 7). They organise their campaigns in response to specific issues. For example, there was a growing awareness that some dog owners use the cover of darkness as an excuse to leave their dog poo, so they have produced 'We are watching you' plastic posters with eyes that glow in the dark.

4.2.3 Fly Tipping

Fly-tipping is a criminal activity that costs an estimated £110 million a year to clean up. Land managers or owners are responsible for clearing and disposing of any fly-tipping found on their land. Whilst the Local Council will not clear waste dumped on private land free of charge, they may investigate incidents. In the event that the culprits are caught and successfully prosecuted, the landowner's clean-up costs can be reimbursed. The

Environment Agency will investigate major incidents with a greater potential to cause harm to human health and damage to the environment, such as the larger scale incidents of fly-tipping, incidents involving hazardous waste and those involving gangs of fly-tippers.

The National Fly-Tipping Prevention Group website³⁵ has a guide for landowners and land managers to tackle fly-tipping which suggests a number of steps that can be taken to prevent fly-tipping. These include:

- Physical improvements or small scale landscaping to improve visibility such as removing vegetation to reduce hidden corners.
- Managing the site to keep the area tidy. Untidy areas and old fly-tipped waste attract fly-tippers.
- Deterrent signs from Keep Britain Tidy or the local Police.
- Talking to your neighbours, the local authority, Police or Environment Agency to see if they can help.

4.2.4 Travellers

Historically, gypsies and travellers who stayed on commons made an important contribution to rural life. Common land provided them with camp sites, grazing and a base for

³⁴ www.keepbritaintidy.org

³⁵ www.tacklingflytipping.com

temporary employment on local farms and at the brick kilns. Commons with woodland provided them with raw materials to make and sell items like pegs and brooms.

Nowadays, dealing with gypsies or travellers illegally accessing common land is the responsibility of the landowner or land manager. It helps to have an action plan for the event, be alert and act quickly. The first step is generally to talk to the local police as well as talking to the travellers to make it clear they are not permitted by law to stay on the land. After that, the owner must work through the legal process to issue and serve a court summons, seek and serve a possession order, and, if necessary, execute a warrant for possession with county court bailiffs. The police will visit all sites reported to them, but trespass is a civil offence and not a criminal offence. Prevention of trespass and the removal of trespassers are the responsibilities of the landowner and not the police. The police will assess each incident of unauthorised camping under the Department for Communities and Local Government and Home Office guidelines and act proportionately.

The police can act if criminal activity can be established or they decide to use discretionary powers if group behaviour goes against the Criminal Justice and Public Order Act 1994.

EXAMPLE: Ditchfield Common at Lane End has had experience of travellers.³⁶ After the first group of travellers were moved on, local volunteers, the Church, businesses and the Parish Council worked together to build a perimeter bank, added bollards and gates (with the landowner's help and agreement). When the travellers returned, the residents acted quickly to close and lock the gates so very few vehicles accessed the site. The water supply was also quickly turned off. These actions resulted in the travellers moving on sooner.

4.2.5 Cycling

Cycling of all types is growing in popularity. However, while the CRoW Act gave people the right to walk on common land, they cannot ride bikes unless it is on a designated bridleway. Parents and landowners will know that it is not uncommon for children who are interested in mountain bikes to use spades and hand tools to create jumps on local land. The earthwork that can be created can be quite substantial and, if the landowner is aware, they have to choose how to deal with the situation.

Aston Hill Bike Park



Cycling groups recommend that the best option for landowners is to work with cyclists to make the facility safe and appropriate for site. The International Mountain Biking Association UK produces guidelines to assist land managers in the management and/or development of mountain biking trails and facilities.³⁷ It also has draft risk assessments. Landowners may wish to develop a mountain bike facility as a profit centre in its own right, a means of diversifying to established recreation infrastructure, to encourage public enjoyment of the land, or as part of a certification scheme such as the UK Woodland Assurance Scheme (UKWAS) or as a

means to manage an informal MTB activity being developed otherwise without permission. One of the south east's premier mountain biking areas is Aston Hill Bike Park near Wendover, which is one of the only dedicated mountain biking sites in the Chilterns.

³⁶ www.chilternsaonb.org/uploads/files/AboutTheChilterns/Commons/Article_about_travellers_Commons_Network_newsletter_Spring_2011.pdf

³⁷ imba.org.uk/wp-content/uploads/GuidelinesForLandManagers.pdf

4.3 Resolving Situations with Escalating Conflict

Best of Both Worlds is a website³⁸ designed to help land managers, conservationists and recreationalists resolve conflict which advises:

- Early communication and consultation amongst interested parties can greatly help to resolve issues before people adopt a fixed position. It helps to gain an understanding of what is the cause of the conflict and whether it is the result of misunderstanding or a genuine problem.
- First seek a voluntary solution with the support of recreational users in preference to a statutory solution imposed on them.
- Seek to accommodate and manage recreational use rather than remove it.
- Agree clear, measurable targets which the solution should achieve.

The benefits of this approach are that it increases understanding of the issues involved, creates a greater ownership of the process and solutions and, in the long term, saves time and money.

If there is extreme conflict and the above fails, the only option may be considering whether to use legal mechanisms. This is by no means an easy option as the reasons for doing so are generally strongly challenged and the process is long winded and costly. Wherever possible, resolving situations by working with the community is generally easier.

5 Conclusion

Outdoor recreation makes you feel better. It has a quality which cannot be replicated within four walls and an intrinsic value which can only be experienced by getting out there and engaging with nature.



Sledging on Peppard Common
(Photo Clive Ormonde)

Over the last decade much research, policy and practice has been trying, with limited success, to get more people active for health reasons. Assuming a higher proportion of society takes on the challenge in the future, we can expect to see more people visiting green space. This effect, in addition to housing development and a growing population, will inevitably mean more people enjoying the outdoors. Consequently, it is reasonable to anticipate that common land will become an increasingly important resource for society in years to come. Large visitor sites

³⁸ www.bobw.co.uk

will undoubtedly continue to be popular attractions and their role in educating people about the natural environment will remain significant. Meanwhile, if we make more use of the countryside closer to home, many smaller and lesser known areas of common land will become increasingly popular and may be called upon to diversify what they offer. As technology continues to make information more accessible, we will soon be able to use the internet and phone apps to locate local areas of publicly accessible green space wherever we are.³⁹

As we now understand more about what people are looking for when they visit green space, we can enhance smaller, lesser known areas of common land to make them better for people. Funding through schemes like SANGS can be used to provide better quality green space closer to homes, which can help alleviate some of the pressure on commons or other green spaces of a high nature conservation value.

When people and communities are engaged with the natural environment they can help to improve it for wildlife in a variety of ways. These include helping directly by volunteering with a conservation group, joining an organised litter-pick or simply being a dog owner who picks up rubbish on their daily walk. People can also help indirectly, for example, by being part of a Friends group who have created a website which provides information on the wildlife, habitats and conservation of their local common. As people understand more about an area, they feel a sense of ownership and of responsibility, and it is this that may lead them to volunteer their time to help in its conservation (see Local Spaces - Profit or Loss paper from this series for an example of Brill Common community herd). Harnessing this energy can help land managers to achieve high quality natural green open spaces rich in wildlife.

Managing recreation on common land can present some interesting challenges. This paper gives an overview of techniques for managing recreation, examples of best practice and details of schemes which can be easily replicated. Case studies show that recreation can be managed through planning and community engagement.

We live in fast changing times, economically, socially and environmentally. The way we use our common land has changed dramatically over past centuries. These days we look to common land to be part of a network of green space that is used by society for life-long learning, health and wellbeing. This means places where children play, which people enjoy for sport, leisure and social reasons, places that people understand and where we feel a cultural connection with the land.

³⁹ www.ordnancesurvey.co.uk/about/news/2014/deputy-pm-announces-plans-for-new-map-of-accessible-green-space-using-os-data.html

Signposting for Landowners and Managers to Information, Advice and Support

In addition to the references listed in this paper, these are the main resources.

- Chilterns Conservation Board. www.chilternsaonb.org
 - Interactive map of common land.
 - Chilterns Commons Project - training workshop materials. Covers all aspects of site management including volunteering, making commons fun for kids and producing interpretation.
- Natural England. www.gov.uk/government/organisations/natural-england
- Forestry Commission. www.forestry.gov.uk
- Visitor Safety in the Countryside. vscg.co.uk/
- Best of Both Worlds. www.bobw.co.uk
- Benefits of Green Exercise, University of Essex. www.greenexercise.org/index

Recommendations for further research

Proposed studies could include:

- A behavioural study of people living under two miles from a typical selection of commons and other open access land in the Chilterns. The study could include patterns of recreational use and attitudes towards the green spaces. It could investigate if accessible land close to people's homes is truly an underutilised resource. It could also research the drivers for people accessing green space and measure if people will visit areas close to home instead of areas of high conservation value.
- A study of provision of information relating to using open access land. For example, how often do people look for additional information to enable or encourage them to vary where they go and what they do and what resources did they find? Identify what resources are best to help people vary their behaviour and establish if these two correlate.
- A behavioural study of peoples' engagement with their local common or other local green space resource. What engenders a sense of ownership? Does recreation encourage volunteering in other ways, such as fund raising and/or increased stewardship.

Local Spaces - Changing Environments

Dr Vicky Myers

Summary

This report reviews the current state of the natural environment and summarises the global factors that are influencing it. It then looks at the local picture in the Chilterns and considers how common land can work as part of a larger network of protected areas to provide a valuable resource for wildlife. To achieve this, we consider various species which are associated with common land and map their distribution, or the distribution of their habitats, to speculate how they will fare in the future. By standing back and taking a look at the bigger picture, we may be able to see how we can help species move across the landscape by creating more diverse habitats, providing corridors between sites, or linking sites via smaller stepping stone sites.

1 Introduction

People value their natural environment. However, development demand caused by a growing population is eroding the natural environment. The loss of biological diversity is causing problems for people and will affect communities and the economy into the future. At the same time, the UK's climate is changing and these changes are already affecting biodiversity.

Commons are an essential component of the landscape for wildlife in these changing times. Registered common land contributes to a network of stepping stones across the region, which include Sites of Special Scientific Interest (SSSIs), Local Wildlife Sites (LWSs) and land owned by conservation bodies such as the Wildlife Trusts or National Trust. Over half of the commons are of high ecological value and have been designated at a national level as SSSIs or at a county level as LWSs.

But islands of protected land alone are not enough to ensure species survival.¹ Wildlife needs room to move, especially in the face of climate change. Forecasts predict that climate change in the next 50 years will force wildlife to shift 250 miles north if it is to remain in the same temperature range as that in which it lives today.² Despite hard-won successes in the past, the fact is that the current scale of conservation effort isn't enough, and we need to think on a landscape level.

2 Background

2.1 State of the Planet and its Natural Resources

2.1.1 Loss of Biodiversity

The State of Nature report, jointly produced by scientists from 25 wildlife organisations in May 2013, detailed how many species are struggling and have declined in number. Causes include the intensification of farming, with the resulting loss of meadows, hedgerows and ponds and also increased pesticide use, as well as building development, overfishing and

¹ Lawton, J.H., Brotherton, P.N.M., Brown, V.K., Elphick, C., Fitter, A.H., Forshaw, J., Haddow, R.W., Hilborne, S., Leafé, R.N., Mace, G.M., Southgate, M.P., Sutherland, W.A., Tew, T.E., Varley, J., & Wynne, G.R. 2010. Making Space for Nature: a review of England's wildlife sites and ecological network. Report to Defra.

² www.wildlifetrusts.org/node/3661

climate change. Over 3000 species (just 5% of the species that inhabit the UK) were analysed for the report and three in every five were found to have declined in the last 50 years, with one in ten at risk of extinction. Invertebrates such as moths, butterflies, bees and beetles have been particularly affected. On farmland, which covers 75% of the UK, bird numbers have fallen by half and butterflies by a third since 1970. Grassland and heaths, traditionally rich in species like reptiles and orchids, have seen two in three species decline and these declines have happened over many decades, with 97% of lowland meadow having vanished between the 1930s and 1980s.

Many habitats that once stretched for miles now exist as small, isolated fragments surrounded by a landscape often inhospitable to wildlife, dominated by intensive agriculture and urban development. Towns and cities, busy roads and railways all make it difficult for wildlife to move between safe havens.

But there is also positive news. Our river water quality has improved to the extent that otters have now returned to every county in the UK. Otters have also populated many new habitats, such as disused gravel pits that have been restored as lakes and ponds, and birds such as the bittern are also benefiting. Since the Second World War, both the statutory and voluntary sectors have made huge efforts in protecting areas and species, and have achieved many successes, especially where sustained conservation work has been targeted at particular sites or species.

Fig. 1
Report card on Terrestrial
Biodiversity

Headline messages from the UK Terrestrial Biodiversity Climate Change Impacts Report Card

- There is strong evidence that climate change is already affecting UK biodiversity. Impacts are expected to increase as the magnitude of climate change increases.
- Many species are occurring further north and at higher altitudes than in previous decades, including some species which have colonised parts of the UK from continental Europe.
- Recent rates of change in distributions differ between species. Some species, including many plants, are intrinsically slow to disperse and fragmentation of habitat may contribute to some species spreading more slowly than would be expected from climate change alone.
- Warmer springs in recent decades have caused a trend towards many biological events (eg flowering, budburst, laying and hatching of eggs) occurring earlier in the year. The rates of change vary among species, which may alter the interactions between species.
- There is evidence of changes in the composition of plant and animal communities, consistent with different responses of different species to rising temperature.
- Species differ in their responses to variation in precipitation. The effects of climate change are less certain for precipitation than for temperature, but potential changes could lead to substantial changes in biodiversity and ecosystems.
- Some habitats are particularly vulnerable to climate change. The risks are clearest for montane habitats (to increased temperature), wetlands (to changes in water availability) and coastal habitats (to sea-level rise).
- Climate change exacerbates the risk that non-native species (including pests and pathogens) may establish and spread.
- We expect there to be regional differences in the impact of climate change on biodiversity, reflecting different species, climate, soils and patterns of land use and management.
- The protected area network, which includes Sites of Special Scientific Interest and National Nature Reserves, will continue to have a valuable role in conservation, although there will be changes in populations, communities and ecosystems at individual sites.
- Climate change will interact with, and may exacerbate, the impact of other continuing pressures on biodiversity, such as land use change and pollution.
- Extreme weather events, such as droughts and floods, have clear impacts on ecosystems and the ecosystem services they provide. Climate change may alter the frequency and severity of such events. Extreme events associated with climate change may have a greater impact on biodiversity and ecosystems than changes in the 'mean climate'.

2.1.2 Climate Change

The evidence that the Earth's climate has changed as a result of human activities has become increasingly clear in recent decades, with the IPCC describing the warming of the climatic system as 'unequivocal' and stating that it is 'extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century'.³ UK predictions vary depending on greenhouse gas emissions scenarios, the time period considered and within probability levels.⁴ However, in general it is fair to say the UK will get warmer; more so in summer than winter. Overall rainfall is not projected to change very much, but it is likely that average winter rainfall will increase and average summer rainfall will decrease. It is likely we will experience more droughts in the summer and more heavy storm events. While the emphasis has generally been on the direct impacts of climate change, the way society responds to climate change will impact on the natural environment. The Living with Environmental Change partnership has produced a Report card on

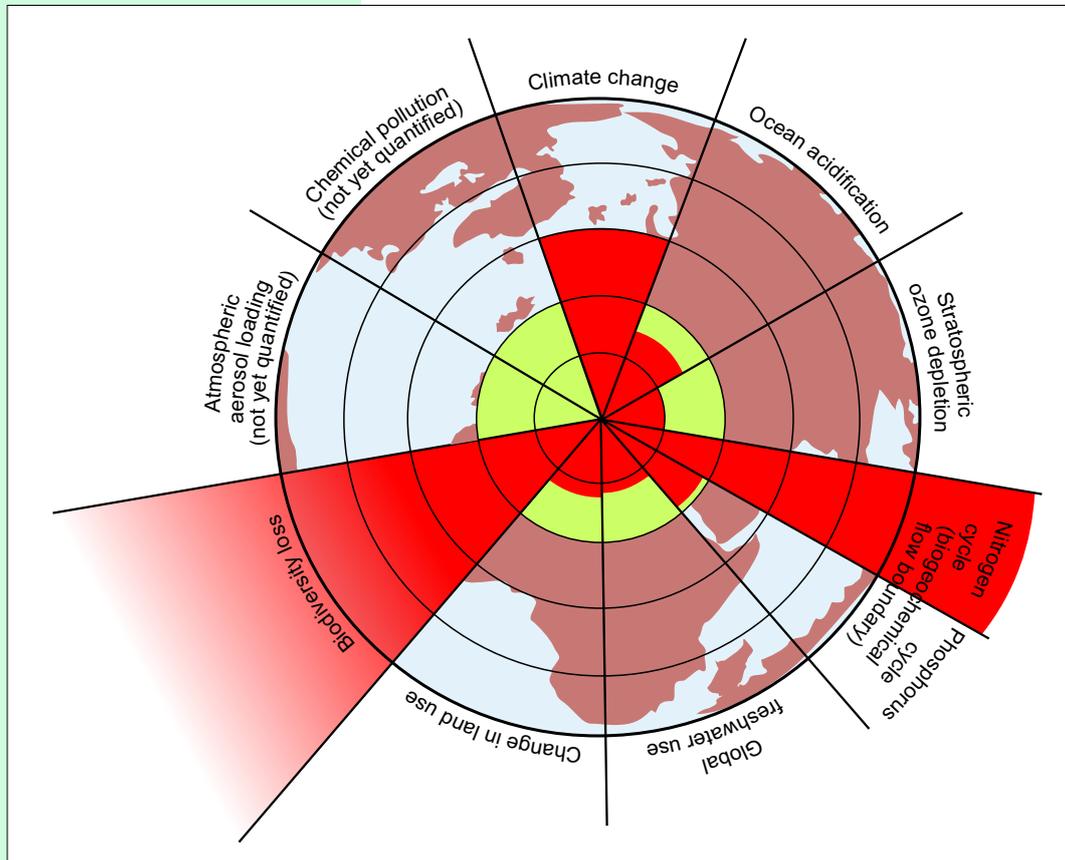
Terrestrial Biodiversity which gives a high level overview of the impacts (Fig. 1).⁵

³ IPCC, 2013: Summary for Policymakers. In: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

⁴ Geoff Jenkins, James Murphy, David Sexton, Jason Lowe, Met Office Hadley Centre, Phil Jones, Climatic Research Unit, University of East Anglia, Chris Kilsby, University of Newcastle, UK Climate Projections: Briefing report, Version 2, December 2010

⁵ Morecroft, M. and Speakman, L (eds.) (2013). Terrestrial Biodiversity Climate Change Impacts Summary Report. Living With Environmental Change.

Fig. 2
Planetary boundaries and ratings for nine environmental hazards.
(Photo: Azote Images/
Stockholm Resilience Centre)



planetary health. The red areas show fields of serious concern. Of the nine ongoing hazards, the research group identified that interference with the global nitrogen cycle was our second-worst problem and biodiversity was the first. Nitrogen is valuable for enhancing food production however much ends up in the environment, through terrestrial means (polluting waterways and coastal zones), also through increasing concentrations in the atmosphere. This global synopsis has been updated since it was first published in 2009 and, although this is evolving science, it still provides an interesting comparison between different threats at a global level.

2.2 Working for a Healthier Planet

2.2.1 Climate Change Adaptation

Over the last 20 years, society has increasingly been recognising the need to adapt, and nature conservation has been one of the first sectors to start developing approaches. To date, much of the process has been on identifying general principles, but adaptation needs to be embedded into decision-making in specific places and circumstances. Natural England (NE) has taken a first step with its Climate Change Adaptation Manual,⁷ which is designed to support practical and pragmatic decision-making, by looking at the detail of how climate change will affect different habitats.

In this context, adaptation is defined as tackling the vulnerabilities and risks climate change brings and making the most of any opportunities. The Government's National Adaptation Programme⁸ sets out four focal areas for adaptation in the natural environment: (i) building ecological resilience to the impacts of climate change, (ii) preparing for and accommodating

⁶ Rockström, J., W. Steffen, K. Noone, Å. Persson, F. S. Chapin, III, E. Lambin, T. M. Lenton, M. Scheffer, C. Folke, H. Schellnhuber, B. Nykvist, C. A. De Wit, T. Hughes, S. van der Leeuw, H. Rodhe, S. Sörlin, P. K. Snyder, R. Costanza, U. Svedin, M. Falkenmark, L. Karlberg, R. W. Corell, V. J. Fabry, J. Hansen, B. Walker, D. Liverman, K. Richardson, P. Crutzen, and J. Foley. 2009. Planetary boundaries: exploring the safe operating space for humanity. *Ecology and Society* 14(2): 32. [online] URL: <http://www.ecologyandsociety.org/vol14/iss2/art32/>

⁷ Natural England, 2014. Climate Change Adaptation Manual.

⁸ Government's National Adaptation Programme, 2014. www.gov.uk/government/publications/adapting-to-climate

inevitable change, (iii) valuing the wider adaptation benefits the natural environment can deliver and (iv) improving the evidence base.

There is increasing evidence that the natural environment can be managed in ways that will help people to adapt to climate change, as well as providing benefits for nature and its conservation. This is known as ecosystem based adaptation and could include creating green spaces or planting trees in towns to lower the temperature locally (as a result of the cooling effect of water loss from leaves).

In NE's Habitat Adaptation manual, habitat sensitivity and vulnerability to climate change have been assessed and generalisations made for different habitat types, site conditions and capacity. This has resulted in national sensitivity ratings for habitats. Meanwhile, species differ in their sensitivity to climate change and their reasons for this sensitivity are more complex. In some cases, the limitations on a species' range are set by physical conditions, for example the failure to set viable seed at low temperatures. An example of this is the northern limit of the small leaved lime, *Tilia cordata*. In other cases, interactions with other species are the determining factor. For example, most alpine plant species can survive at higher temperatures than they typically occur at, but do not do so in natural conditions because they cannot compete with taller, faster growing species typical of lower altitudes. Species may alternatively depend positively on the presence of another species, for example as a food source or host.

2.2.2 Landscape Scale Conservation

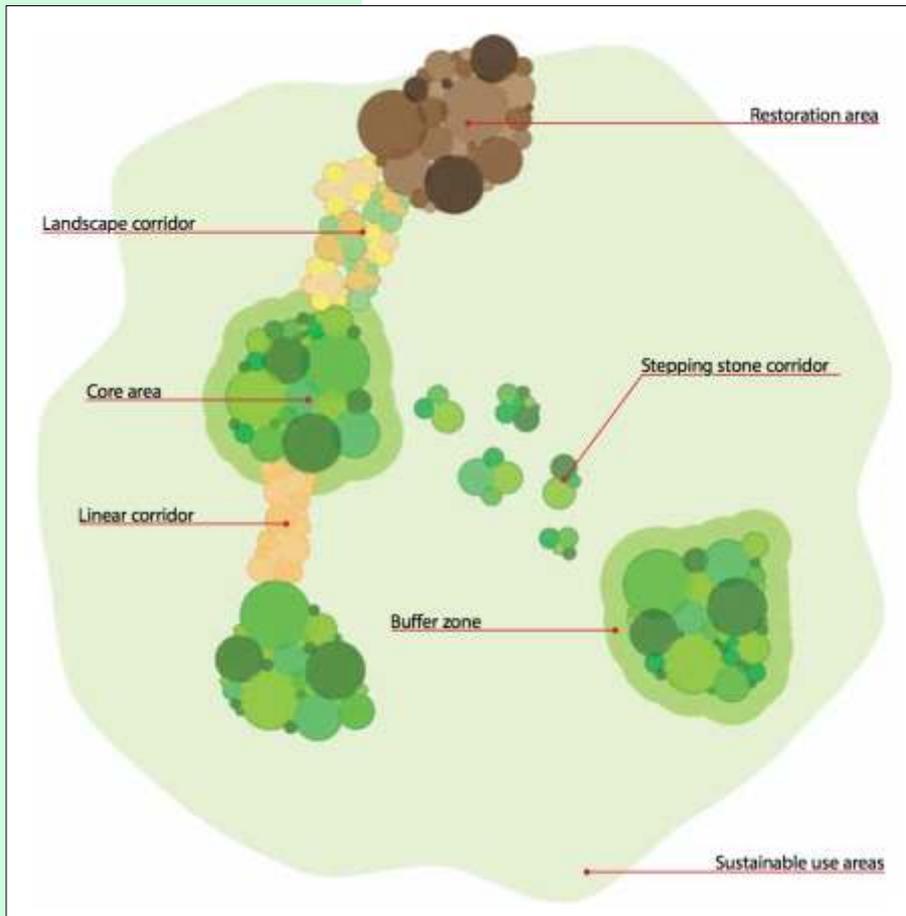
The Lawton review, *Making Space for Nature*, published in 2010, showed that despite our conservation efforts, England's protected area network was still not preventing the continuing declines of many species of plants and animals. Butterflies feature prominently in the evidence base, both the successes and the ongoing declines of once widespread species. The declines fall disproportionately on the habitat specialists that require habitats including coppiced woodland and grazed chalk grassland. The reasons for this are several.

In many cases protected sites are simply too small to prevent random fluctuations driving local populations to extinction. In other cases surviving patches of semi-natural habitat are poorly managed or not managed at all. Or finally, surviving sites may be in a sea of inhospitable agricultural or urban landscapes. Butterflies play a vital role in testing the science of metapopulation dynamics and have demonstrated these four factors. The conclusion was that we need 'more bigger, better managed and joined up' sites in a landscape level approach to wildlife conservation. Conservation studies have shown that more bigger, better and more joined-up networks work, and need to be rolled out far more widely as recreating, restoring and joining up habitats works not just for butterflies but for other species (Fig. 3). This is the main principle of landscape scale conservation and is now widely embedded in the UK Government's work.

Lawton's review identified the need for 'a suite of high quality sites which collectively contain the diversity and area of habitat that are needed to support species and which have ecological connections between them that enable species, or at least their genes, to move'.

Some of the key questions about protected sites in the landscape are: (i) How many sites are there in the area and are there any physical or functional relationships between them? (ii) Are existing sites big enough to cope with more dynamic future conditions? (iii) How might species move between the sites? (iv) Are the right sorts of land cover/land management present in the right places to enable this?

Fig. 3
Creating ecological networks
to achieve landscape scale
conservation



Different species have different requirements to move across the landscape and different capacities for dispersal. Some species with limited mobility, such as ancient woodland plant species, will not be able to move fast enough to track projected changes in climate

and 'assisted migration' may be the only way to ensure they reach potential new locations. Other species such as micro-organisms that can disperse on the wind, are less affected by dispersal constraints, provided the prevailing wind is in the right direction. There may also be unwanted consequences of improved connectivity such as risks from invasive species, pests and diseases.

Improving connectivity between habitats by creating ecological networks in the countryside is therefore essential to developing climate change adaptation for biodiversity. The RSPB's Futurescapes programme, the Wildlife Trusts' Living Landscapes approach, and the recently designated Nature Improvement Areas are all schemes aiming to create ecological networks. A key aspect of this approach which is applicable to the Chilterns Area of Outstanding Natural Beauty (AONB), is increasing the number of semi-natural habitat patches on common land and making surrounding farm land more suitable for

wildlife. The Chiltern commons, whether they have statutory designation or not, form an important part of the ecological network.

2.2.3 Achieving Landscape-scale conservation

Landscape scale conservation is about enlarging, improving and joining up areas of land. It considers ways to allow wildlife to move through the countryside by restoring, recreating and reconnecting habitats (Fig. 3). This can be achieved by providing:

- Core areas of high quality wildlife habitat. Often these will be protected areas, nature reserves, SSSIs, etc. These are the vital sanctuaries from which wildlife is able to emerge into the wider landscape.
- Connections between core areas. Continuous corridors of suitable habitat, such as river valleys or diverse hedgerows, act as 'wildlife highways' allowing species to travel through areas to find suitable living conditions. Habitats can also be connected by a series of stepping stones, rather than a large swath of continuous habitat. Stepping stones are smaller, unconnected natural areas, pockets of protected land that act as stop-off points for wildlife on the move, for example a series of copses in open grassland.
- Permeability across the whole landscape. Land between the core areas and connecting habitats needs to be more accessible to wildlife. It may not all be optimal habitat, but we can make changes to the way that land is managed so that it is easier for wildlife to move through and re-colonise the landscape.

2.2.4 Role of the Farmed Environment

Farming practices account for about 75% of the total land area in the Chilterns AONB and the management of this land plays a significant role in providing habitats as well as fitting into ecological networks. As the Environmental Stewardship Scheme ends and the new Countryside Stewardship Scheme begins, farmers will continue to be offered financial incentives to play their part in conservation. The new Stewardship scheme has a strong emphasis on enhancing natural habitats by providing food and nest sites for both pollinators and birds. There is also funding to link farms by enabling communication between neighbours to establish stronger ecological networks.

2.2.5 Quantifying the Value of a Healthy Natural Environment

The benefits that humans gain from the natural world have become more widely recognised in recent years. This range of benefits has been called ecosystem services, and includes food, water, materials, flood defences and carbon sequestration, with biodiversity underpinning most of this. These services are fundamental to our wellbeing, health and economy. Creating stronger ecological networks helps us to support the ecosystem services that naturally support our life on earth. The concept of valuing ecosystem services has its critics, with some warning that by 'putting a price on nature' we are in danger of reducing the environment to just an accounting exercise.⁹ However, where it is possible to value ecosystem services in a meaningful way, this may help us and government address the importance of conserving such services and provide a measure of the health of the environment.

3 Biodiversity insight: Ten Species Characteristic of the Chiltern Commons

From this national and global perspective, we now come down to ground level to look at ten species characteristic of the Chiltern commons which are affected by this bigger picture. When looking at each species we will consider factors such as their distribution, relevant research, habitat management and links with the farmed environment. We will demonstrate how thinking beyond an individual site is important when deciding how to manage habitats. We will show the advantages of thinking on a landscape scale and also highlight some of the challenges of considering the bigger picture. We are not suggesting that any common should be managed for these species in isolation. These examples are to initiate discussion and give you, the audience/reader, food for thought.

Heather, *Calluna vulgaris*. In September 2014, *Calluna vulgaris* was listed as a 'Near Threatened' species in the Red List for England's Plants as a result of its declining population in this country.¹⁰ *Calluna vulgaris* is the main element of lowland heath which is valuable as it supports species like the linnet, stonechat, silver-studded blue butterfly, and Dartford warbler which have adapted to live in this open habitat. Lowland heathland is a nationally rare habitat¹¹ and its protected area status gives us a duty to manage it.

During Medieval times, heathland was created by man for grazing animals, especially cows. Communities also occasionally burnt it to encourage strong regrowth, which provided food for their stock. At this time people also started exercising their common rights over the land for food, fuel and firewood to survive.

⁹ www.monbiot.com/2014/04/22/reframing-the-planet.

¹⁰ Stroh, P.A., Leach, S.J., August, T.A., Walker, K.J., Pearman, D.A., Rumsey, F.J., Harrower, C.A., Fay, M.F., Martin, J.P., Pankhurst, T., Preston, C.D. & Taylor, I. 2014. A Vascular Plant Red List for England. Botanical Society of Britain and Ireland.

¹¹ UK Biodiversity Action Plan.

The underlying geology of the Chilterns is chalk, with clay with flints and other acidic deposits on the hill tops. Typically, calcareous grassland is found on the escarpment and valley sides. However, acidic conditions are not uncommon elsewhere resulting in acidic grassland with stands of heather and bracken.

In England only one sixth of the heathland present in 1800 now remains.¹² Much of this decline has been since the 1950s, where heathland has been lost to forestry, agriculture, development and the lack of active management. When management by grazing or burning ends, and if the heather is not cut, scrub and trees become established and this quickly results in a complete change in vegetation structure.

Calluna vulgaris responds positively to habitat restoration and management, which involves the removal of trees or scrub. If trees and scrub are cleared to recreate an open habitat, acid grassland and grassy heath plant communities return. However, once the trees have been cut, ideally grazing should be reintroduced. Alternatively, continual removal of any regrowth in scrub and trees is required.

Managing scrub either mechanically or with volunteers is labour intensive and grazing is the best way to manage these open habitats. However, grazing is not always popular locally,¹³ yet there are situations where grazing has been established despite local opposition. Chailey Common in Sussex is now fenced, cattle grids have been installed and it is grazed with sheep, cattle and ponies, despite local opposition. Application by the county council on behalf of the Chailey Common Management Committee to fence the five commons which make up the nature reserve and allow livestock to graze the sites was approved at public inquiry in 2009 and grazing was reintroduced in 2012. It was recognised that grazing was 'the only way' of saving the commons for future generations. Chailey Common is a local nature reserve and SSSI which is now managed under Higher Level Stewardship funding.¹⁴

Although grazing is uncommon on Chiltern commons, a flock of Beulah Speckled Face sheep has been grazing the chalk grassland, broadleaf woodland and juniper scrub on Aston Rowant NNR for many years. The combination of grazing and nutrient-poor soil has led to the development of a rich wildflower flora which supports many invertebrates and butterflies.¹⁵

Finding stock for grazing has become much easier in recent years. Some councils and wildlife trusts have roaming or flying stock which they move around the country, or there are websites such as StockKeep¹⁶ and SheepKeep¹⁷ which matches livestock to grazing. This provides a forum to make contacts and communicate ideas and opportunities. Technology is also providing ways to avoid erecting fencing and putting in cattle grids as it will soon be possible to buy virtual fencing for cattle wearing GPS collars that are programmed by a GIS system to provide an invisible boundary. This science is currently being developed in America.¹⁸ A similar system using electronic collars on cattle has recently been used successfully at Chorleywood Common.

¹² JNCC and Defra, 2012. The UK Post-2010 Biodiversity Framework

¹³ www.nettlebed-commons.org/Kingwood%20Common%20Summary%20Dec09.pdf and www.planningportal.gov.uk/uploads/pins/common_land/decision/com_165_decision.pdf

¹⁴ www.eastsussex.gov.uk/leisureandtourism/countryside/walks/chaileycommon/default.htm

¹⁵ www.grazinganimalsproject.org.uk/gap_site/aston_rowant_nnr.html

¹⁶ www.stockkeep.co.uk

¹⁷ www.sheepkeep.co.uk

¹⁸ www.csiro.au/Organisation-Structure/Flagships/Sustainable-Agriculture-Flagship/Virtual-Fencing-Project.aspx



Fig. 4
 Magic map showing heathland areas around Aldbury. Common land is outlined in green. Heathland is purple

Magic map¹⁹ shows that lowland heathland is a very rare habitat in the Chilterns AONB (Fig. 4). Remaining fragments of heath can be found near Berkhamsted, predominantly on Berkhamsted and Northchurch commons. This area of heathland benefits from the National Trust being a large landowner/manager in the area, which is able to actively manage habitats for conservation. Decades ago, it is likely that this area of heathland would have extended over nearby land, so there are probably isolated fragments of historic heathland on surrounding farms or in woodland clearings. If these can be identified and restoration encouraged, these areas could form significant areas or stepping stones of rare and valuable habitat which is important for specific wildlife, and also a valuable part of the cultural heritage of the Chilterns.



Harebell. (Photo: www.wildaboutbritain.co.uk)

Harebell, *Campanula rotundifolia*. This delicate blue flower is native to both acid and chalk grassland and heaths so is less restricted by habitat and geography. It is regularly visited by various bees, including the tiny Harebell Carpenter Bee (*Chelestoma campanularum*) which specialises in collecting pollen from flowers in the genus *Campanula*.

The harebell is one of a suite of wildflowers, once common and widespread across England, which have declined across their entire range and are now close to being listed as threatened.²⁰ It is estimated that we have lost 80% of our chalk grassland over the last 60 years through ploughing, fertilisers and the absence of grazing resulting in scrub and woodland encroachment. The decline of the harebell has also been linked to an increase in atmospheric nitrogen deposition.²¹ Researchers looked at species composition of acid grassland in Europe across a gradient of nitrogen deposition and found that as nitrogen deposition levels increased,

Campanula rotundifolia presence declined because it is a poor competitor with more vigorous species.²²

¹⁹ www.magic.gov.uk

²⁰ Natural England, 2014. Vascular Plant Red Data List for England.

²¹ www.apis.ac.uk/overview/pollutants/overview_N_deposition.htm

²² Stevens, C., Dupre, C., Gaudnik, C., Dorland, E., Dise, N., Gowing, D., & Diekmann, M, 2011. Changes in species composition of European acid grasslands observed along a gradient of nitrogen deposition. *Journal of Vegetation Science*, 22(2), 207-215. http://oro.open.ac.uk/28850/2/Changes_in_species.pdf

The global nitrogen cycle has increased dramatically since the start of this century, both intentionally as fertiliser and unintentionally as a by-product of combusting fossil fuels.²³ Increasing atmospheric deposition of excess nitrogen is accepted as one of the main threats to biodiversity across the globe²⁴ and levels of nitrogen deposition in Western Europe are among the highest in the world. Nitrogen deposition can change species composition and species richness because it increases primary productivity causing increased competition for light and other resources. This can lead to an increased dominance of competitive species that are better able to take advantage of the increased nutrients. Nitrogen also has the potential to acidify soils, and the lower pH can reduce the available species pool causing changes to species composition. This competition can lead to the loss of specialised plant communities and ecosystems. Since *Campanula rotundifolia* is rarely found on strongly acidic soils and is a poor competitor with more vigorous grasses, we can expect it to decline in the future.

The issue of increasing nitrogen deposition presents us with many difficult challenges as a society. Changes in direct habitat management are more amenable to local action, and a large landscape scale conservation scheme is already being carried out in the Chilterns by the Bedfordshire, Cambridgeshire and Northamptonshire Wildlife Trust in partnership with Natural England, The National Trust, Butterfly Conservation, Local Authorities and

Fig. 5
Area of the North Chilterns Chalk scheme.
(www.wildlifetrusts.org/wildwalks)



landowners (Fig. 5). The North Chilterns Chalk²⁵ scheme involves bringing all the remaining calcareous grassland sites in a specific area into a favourable management regime. This will create new grasslands to join fragments which are close together by providing stepping stones to help species move between areas. The majority of the work involves dealing with the issue of scrub control. Stock fencing will be installed or replaced to allow a 'flying stock' of grazing animals to manage the scrub. Where the scrub has become too dense for animals, the Trust will utilise a tractor and flail. Wildflower seed is being collected from suitable established chalk grasslands and used to help recreate grasslands elsewhere in the project area. The scheme has already established and implemented a conservation management plan in Houghton Regis quarry which has huge potential as chalk grassland habitat.

²³ Galloway, J. N., Townsend, A. R., Erisman, J. W., Bekunda, M., Cai, Z., Freney, J. R., Martinelli, L. A., Seitzinger, S. P., and Sutton, M. A. 2008. Transformation of the nitrogen cycle: Recent trends, questions and potential solutions. *Science*, 320: 889-892.

²⁴ Sala, O. E., Chapin, F. S., Armesto, J. J., Berlow, E., Bloomfield, J., Dirzo, R., Huber-Sanwald, E., Huenneke, L. F., Jackson, R. B., Kinzig, A., Leemans, R., Lodge, D. M., Mooney, H. A., Oesterheld, M., Poff, N. L., Sykes, M. T., Walker, B. H., Walker, M., and Wall, D. H. 2000. Biodiversity - Global biodiversity scenarios for the year 2100. *Science*, 287: 1770-1774.

²⁵ www.wildlifetrusts.org/living-landscape/living-landscape-schemes/scheme-directory/north-chilterns-chalk

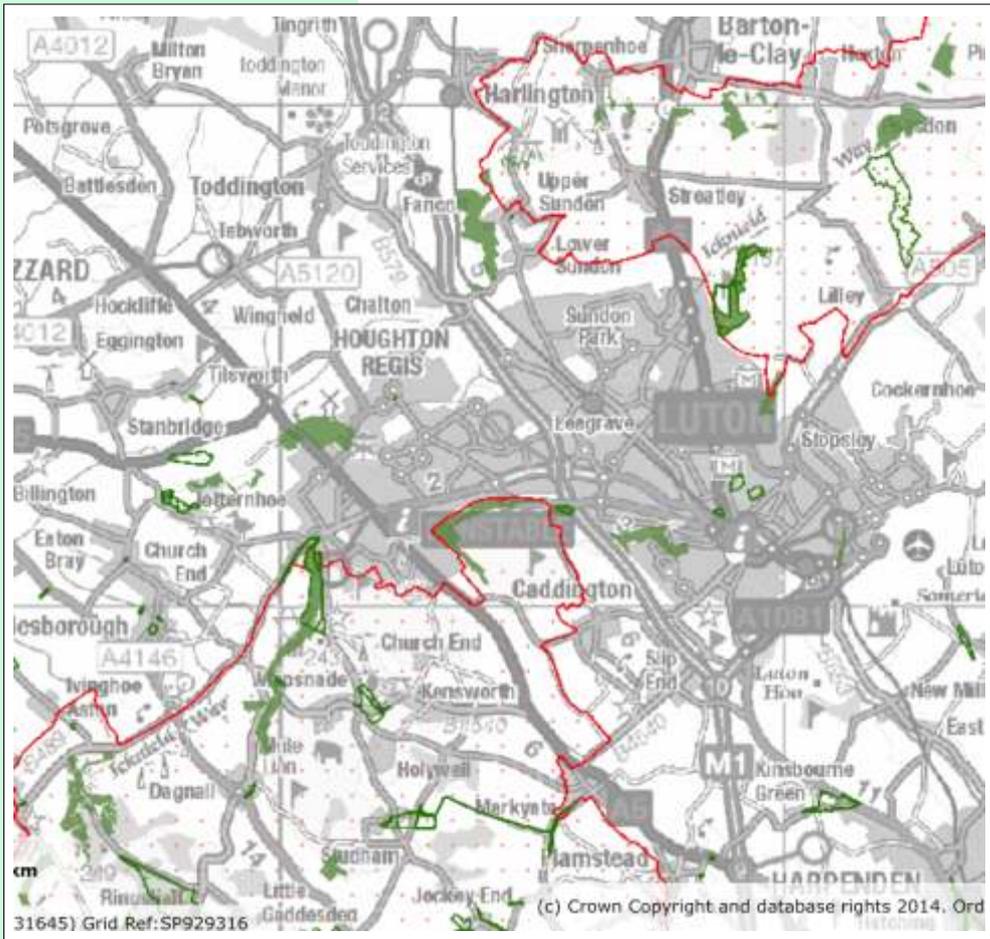


Fig. 6
 Magic map identifying areas of chalk grassland, coloured green around Luton

Magic map shows why this area was chosen for a landscape scale project since it is possible to identify several large areas of chalk grassland around Luton (Fig. 6). To the west of Luton is the common of Dunstable Downs, near to Totternhoe Knolls common land and Chalk Hill quarry. There is also more grassland between Upper Sundon and Chalton which provides a link over to Galley and Warden Hills Nature Reserve which is also common land. There is between 2.5 and 4.5 km between all of these sites making a good network of conservation areas across the landscape and between separate parts of the AONB.

Hazel dormouse, *Muscardinus avellanarius*. This charismatic native species is well-known, but has become extinct in some areas despite having once been widespread throughout Britain. It is classified as a priority species in the UK Biodiversity Action Plan.

Dormice need a diverse habitat that has good connective wildlife corridors. Although traditionally found in coppiced woodlands, they can also be found in hedgerows, scrub, gardens and allotments. Much of the decline of the dormouse is due to habitat loss, fragmentation, disturbance and poor habitat management. Their conservation depends upon our classic British landscape, in particular woods and copses, being linked by old, species-rich hedgerows containing mature, native trees.²⁶



Hazel dormouse.
 (Photo: www.redorbit.com)

The effectiveness of eighteen dormouse reintroduction programmes has been appraised by Natural England.²⁷ Their report questioned the current approach to reintroductions and suggested that in future the release strategy should be one of consolidation instead of expansion, with future reintroductions involving the release of large numbers of individuals, in areas with good management and of a significant size. It also recommended an area for future reintroductions which takes in the northern part of the Chilterns.

Dormice are monitored at sites across the Chilterns including Studham, Chinnor Hill and Bledlow Ridge. Buckinghamshire County Mammal recorders also receive occasional reliable sightings from sources throughout the Chilterns. The Berkshire, Buckinghamshire and Oxfordshire

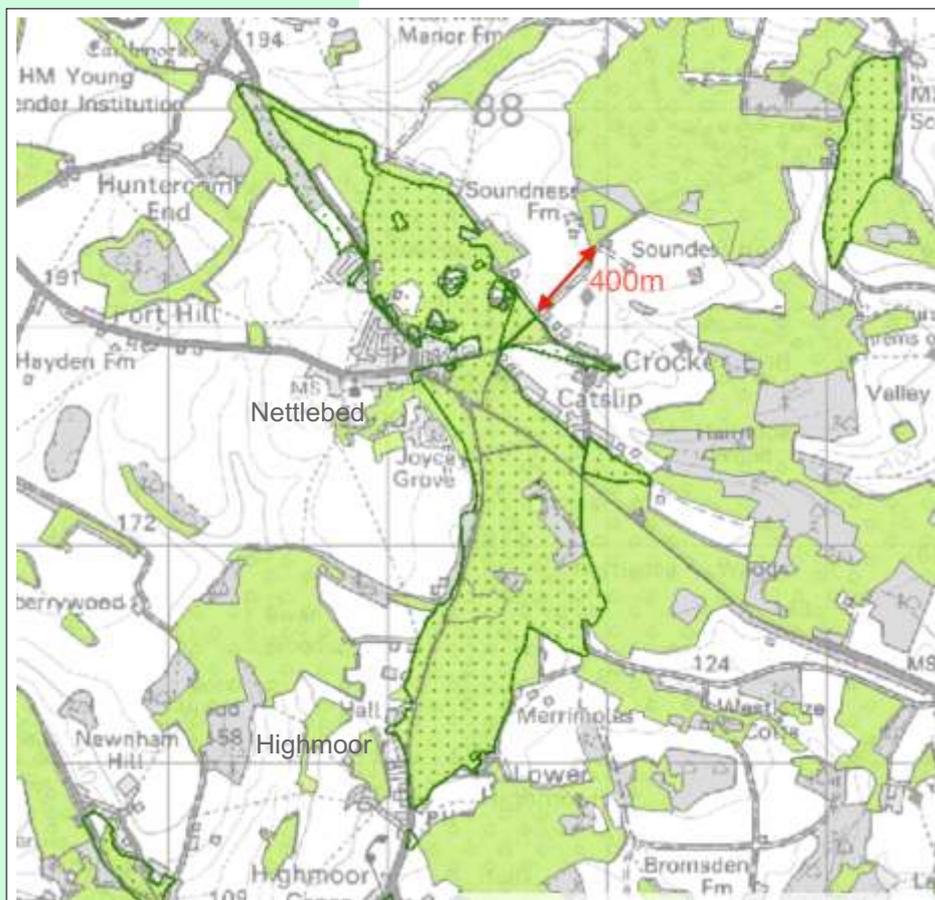
²⁶ ptes.org/campaigns/dormice

²⁷ Natural England, 2014. The Dormouse Reintroduction Programme: A Review.

Wildlife Trust undertook a reintroduction programme with a population of dormice from Kent (which had been displaced by the Channel Tunnel) which were relocated to Little Linford Wood near Milton Keynes. These animals are reportedly doing really well.²⁸

Key to this species' success is having a large area of well managed woodland, so continuous woodland or adjacent woodland is perfect, but where this does not exist, dormice happily travel along continuous hedges which link areas of suitable habitat. Magic maps can help identify areas where these conditions occur and effort can be placed in making sure healthy, continuous hedgerows exist. Countryside Stewardship grants can help provide the funding to create or improve habitat conditions.

Fig. 7
Magic map showing areas of deciduous woodland around Nettlebed. Common land outlined in green.



From Magic maps, the area around Nettlebed appears good for dormice due to many large areas of deciduous woodland. The condition of these woodlands and the links between them would need investigating on the ground to assess the potential. Some of these woodlands appear to be adjacent or continuous, but there is one area where only 400 m of hedgerow could possibly link two significant areas of woodland habitat (Fig. 7). The Countryside Stewardship Scheme provides opportunities for corridor links of this nature to be established and delivered through 'facilitation funding'. This funding is available for people or businesses who help landowners and managers to deliver Countryside Stewardship priorities on a large scale across landscapes. The land must be spread across at least four adjoining, or mainly adjoining, holdings. This type of facilitation funding could help to create a network of habitats and corridors for the dormouse.

For help with managing woods, land managers may contact the Chiltern Woodlands Project for free initial advice, help producing management plans and information on grants and regulations. This project is an independent charity based in the Chilterns Conservation Board office.²⁹

To help make the management of small isolated woods feasible and financially viable, other schemes have been created for landowners and managers to work as a collective. The Ward Forester³⁰ model has been established in Devon and is working so well that it is spreading into Dorset. Their website maps clusters of woodlands under different ownership (wards), and brokers the placement of a professional forester with responsibility for finding best offers for any type of woodland operation. The North Wessex Downs AONB is currently investigating the feasibility of creating a Ward Forester scheme in their area.³¹

²⁸ www.bbwt.org.uk/species/dormouse

²⁹ www.chilternsaonb.org/woodlands-project

³⁰ www.wardforester.co.uk

³¹ www.northwessexdowns.org.uk/uploads/docs/publications/Natural_resources_publications/Woodland%20Forum/130403%20Woodland%20Forum%20Final%20Report%20For%20Circulation.pdf

Communities can also help with volunteer activities such as tree planting, nest box building, coppicing,³² hedge laying³³ and hedgerow management.³⁴

Palmate newt, *Lissotriton helveticus*. This species generally has a wide distribution across England, although it appears to be less abundant in the east. It breeds in ponds and ditches in grassland and woodlands, preferring slightly acidic water. Many Chiltern commons contain ponds which were either created to provide water for grazing animals or have formed in old clay pits. The clay cap over the chalk produces acidic ponds which are well suited to the palmate newt. More generally, ponds provide an extremely important habitat for wildlife.

Over the last century half a million natural ponds have been lost which has resulted in a significant decline in UK amphibians. Whilst there have been efforts to improve pond numbers in the last decade, their quality for wildlife, in terms of supporting a diverse range of aquatic plants, amphibians, invertebrates and reptiles, is unfortunately diminishing - over 80% of the remaining UK ponds are reported to be in a poor state.³⁵

Ecological research has shown that all ponds can be good for wildlife, whether small or large, permanent or temporary, shallow or deep, shady or sunny, and whatever the quality or type of silts or pond bottom substrate. Dead wood in ponds or sprawling living trees in them are potentially all good features, as are areas that dry out. All of these features create diverse habitats that can support a greater range of species. Three main factors control the ecological quality and potential species richness of a pond. These are clean water, wildlife friendly surroundings, and the variety of structure or habitat within the pond. Many ponds that do not fit the 'traditional' image of a good pond are in fact potentially very good for wildlife.³⁶

Over recent years many ponds on Chiltern commons have been surveyed by ecological consultants, which indicates that there is significant community interest and concern in their state. Results of these surveys are available from the Local Records Centre or from the Chilterns Conservation Board. Surveys include Mannings pond on Downley Common, Naphill Common ponds, Hatches Pond, Head and Body pond on Cadmore Common, Ibstone Common and ponds on the Ashridge Estate. Problems identified in these surveys included shading from overgrowth, introduced species, dogs (which disturb silt and introduce

chemicals from flea and tick treatments), and occasionally pollution incidents. It is important to carefully manage the ponds already existing on Chiltern commons. Landowners can get advice from the Chilterns Conservation Board and the Freshwater Habitats Trust (formerly Pond Conservation Trust).

Silver-washed fritillary, *Argynnis paphia*. This is our largest fritillary butterfly and fortunately it remains relatively widespread. Silver-washed fritillaries are most often seen in sunny, sheltered rides and clearings in open woodlands. They are large and graceful with a rapid, swooping flight. In favourable years, this species can spread to colonise new areas up to several kilometres away.³⁷ Individual eggs are laid



Silver-washed fritillary.
(Photo:
www.butterfly-conservation.org)

³² www.coppice.co.uk

³³ Bright, P.; Morris, P.; Mitchell-Jones, T., 2006. The Dormouse Conservation Handbook. Second edition.

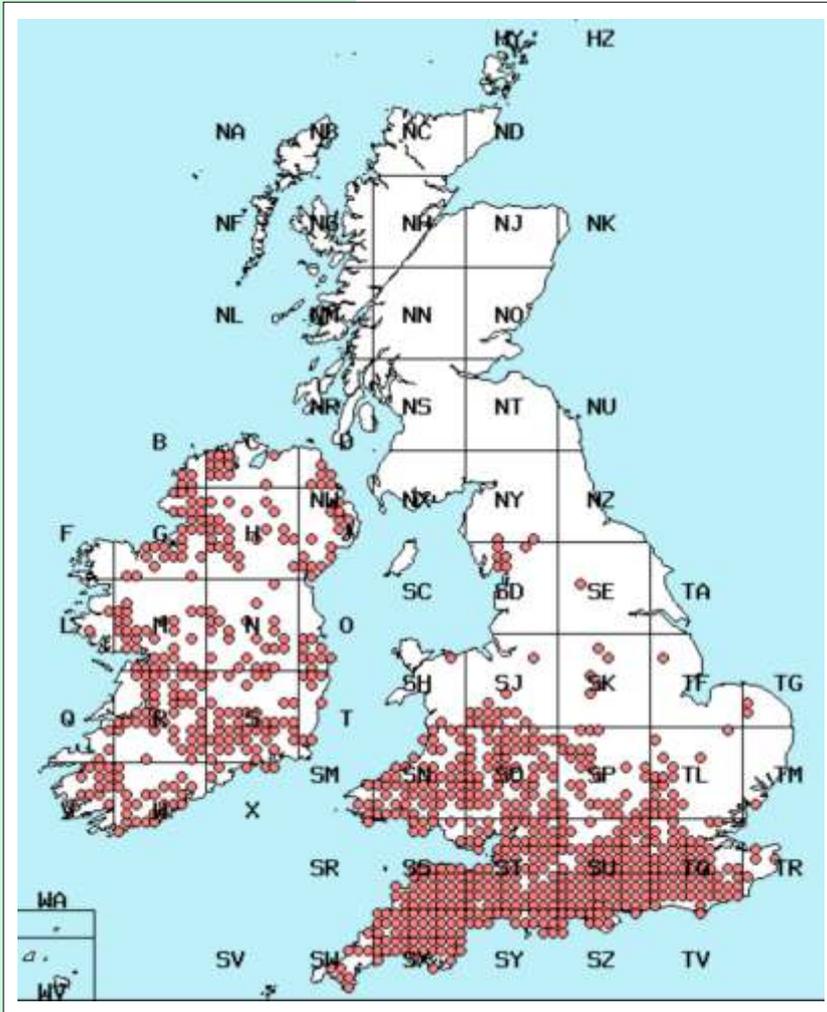
³⁴ Hedgelink. The Hedgerow Management Cycle and Scale.

³⁵ www.freshwaterhabitats.org.uk

³⁶ d'Ayala, R., 2009. Report and Management Recommendations for Ducklington Village Pond.

³⁷ butterfly-conservation.org/679-780/silver-washed-fritillary.html

Fig. 8
Species distribution map³⁸
from 1995-2004.
(Peter Eeles 2002-2014)



in tree trunk crevices and in moss, the caterpillars hatch in spring and fall to the ground to feed on common dog-violet, *Viola riviniana*. Adult butterflies feed on the nectar of brambles. The silver-washed fritillary is named after the silver streaks on the underside of the wing. In southern England, a small proportion of females, known as the *valezina* form, have wings that are bronze-green.

The silver-washed fritillary declined during the 20th century, but has increased during recent decades. With favourable habitat and a warmer climate, the silver-washed fritillary has the potential to spread across the landscape. In 2010 it had a good year in the Chilterns, with a significant increase in the numbers of the *valezina* form.

In the Chilterns, the silver-washed fritillary has been found in Warburg Reserve, Homefield Wood, Aldbury Nowers, Tring Park, Wendover Wood and Aston Rowant. The Upper Thames Butterflies species record indicates it is also at Penley wood.³⁹ Distribution maps for this species vary with specialist butterfly groups having the best records. National data from the NBN is shown in Fig. 8, and the Chilterns area can be examined in more detail on this website. However, this shows that not all the survey results from specialist groups have been shared with this website which highlights the importance of sharing survey data.

The silver-washed fritillary is capable of colonising new sites if the habitat becomes suitable. An increase in active woodland management in the Chilterns, reversing the trend for woodlands to become shadier places, would very likely be

beneficial to this spectacular species of butterfly, along with a wide range of other plants and animals. Butterflies respond rapidly to landscape-scale conservation, and they also respond well to very small scale changes. Projects focused on any single butterfly or moth will also benefit a suite of other species which have broadly similar habitat requirements. Short term funding is available for landscape-scale restoration, often through Countryside Stewardship Schemes as well as other delivery mechanisms.⁴⁰

Silver-spotted skipper, *Hesperia comma*. This warmth-loving species is restricted to close-grazed chalk grassland sites in southern England.

Research on this species by Lawson⁴¹ tells an interesting history of the species and shows its potential in the future. The following is a summary of Lawson's research.

The skipper previously occupied much of southern Britain and was recorded as far north as the Yorkshire Wolds. However, over the past century its range has contracted considerably

³⁸ www.ukbutterflies.co.uk

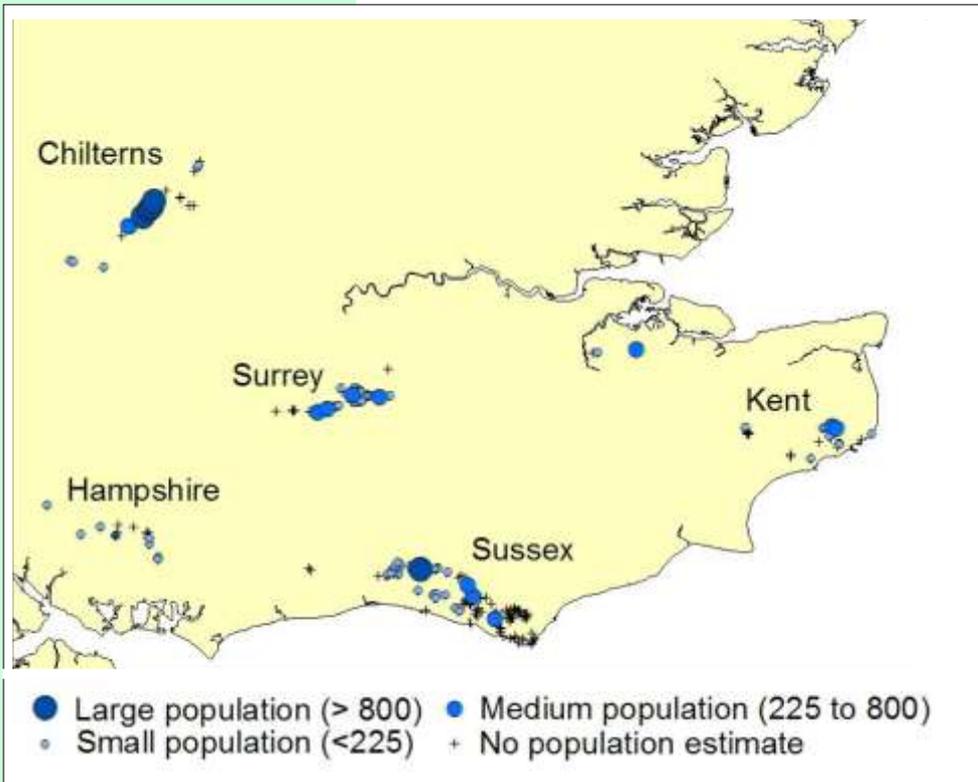
³⁹ upperthames-butterflies.org.uk/Reports/SilverWashedFrit_Report_2010_MCampbell.htm

⁴⁰ Butterfly Conservation Trust, 2012. Landscape-scale conservation for butterflies and moths. Lessons from the UK.

⁴¹ Lawson, C.R, et al. 2013. The status and conservation of the Silver-spotted Skipper *Hesperia comma* in South-East England 2000-2009. University of Exeter.

and it is currently found in just 11% of its former distribution. This decline was due to agricultural intensification, abandonment of extensive grazing on chalk downland and the deliberate introduction of myxomatosis in the 1950s which severely affected rabbit populations (whose grazing maintained a short sward height). In 1980, an extensive silver-spotted skipper survey reported the species limited to south-facing chalk hills, with smaller populations than usual. Subsequent surveys reported more positive news and, by 2000, the species had undergone partial re-expansion in Britain, with more than three times the number of populations present in habitats spread over an area ten times larger than that in the original survey (Fig. 9). This was due to an increase in the availability of short-turfed calcareous grassland in south-east England thanks to the recovery of rabbit numbers and conservation of chalk downland through the reintroduction of domestic livestock.

Fig. 9
The location of silver-spotted skipper populations in south-east England in 2009, with symbols indicating the population size.



Additionally, warmer summers in the UK meant that the silver-spotted skipper was able to colonise north-facing slopes which had previously been too cool to support breeding populations, effectively doubling the area of habitat.

In 2009, the Chilterns had four of the five large (>800) populations surveyed which formed a string of colonies along the south-facing chalk grassland slopes from Aston Rowant to Swyncombe Downs.

No clear expansion has occurred since 2000, despite the availability of habitat to the north in the Chilterns, and to the west of the few small populations around Aston Upthorpe in the Berkshire Downs. In 2013, warm sunny weather during the silver-

spotted skipper flight season meant the species did well. At this time the best sightings were on the northern part of Aston Rowant Nature Reserve and there were also good sightings at Watlington Chalk Pits, a common.⁴²

Silver-spotted skipper populations survive in discrete habitat 'islands' separated by a 'sea' of inhospitable land. Populations usually survive from one year to the next, but may suffer extinctions. To increase in distribution they need suitable habitat in close proximity to existing populations. New populations can only be established if dispersing adult butterflies are able to reach new habitats, breed, and lay eggs in them. Research showed that virtually all (95%) of the habitat patches which are colonised were within 6 km (3.7 miles) of habitat where the species was already present. Generally this species is similar to other relatively sedentary insects, and will only be able to spread their distributions through networks in which there is a succession of suitable habitat patches within about 2 km of each other. Moreover, local extinctions have been observed in all large metapopulations. Both the failure to colonise suitable habitats and the extinction of some populations could result from low population sizes.

⁴² upperthames-butterflies.org.uk/specieschamps

Two of the most potentially important drivers for change in population size are habitat management and climate change.

The silver-spotted skipper requires calcareous grassland with sheep's fescue grass growing in a short broken sward. Without an appropriate level of grazing, such habitat easily becomes unsuitable: too little, and vegetation becomes too tall and dominated by coarse grasses or scrub; too much and sheep's fescue plants become unfavourable for egg-laying. So the management of chalk grassland has a pivotal influence on the size and persistence of populations.

Research has also revealed that climate warming is a key factor favouring the range expansion of the species. Trends nationally show that increasing numbers are observed flying in when August is relatively warm. The trend towards increasing summer temperatures from the 1970s to around 2006 was accompanied by increases in the size of populations as the silver-spotted skipper could colonise north-facing slopes that had previously remained unoccupied despite their close proximity to existing colonies. Furthermore, females were able to broaden their range of egg-laying sites. In 1982, eggs were laid predominantly on sheep's fescue plants growing next to bare ground, which heat up more quickly than plants in denser swards, but by 2000, egg laying was less restricted to such warm microsites. It is thought that the warmer ambient temperatures catalysed the re-expansion of the silver-spotted skipper in Britain by broadening both the number of suitable habitat patches as a whole and the amount of suitable microhabitat for egg-laying within those patches.

At a landscape scale, the creation and restoration of new habitat between isolated patches can facilitate the range expansion of the skipper when August temperatures are high. This is especially important for habitat within 6 km of existing sites. The designation of semi-improved grassland as SSSIs and the uptake of Stewardship Schemes will remain important tools in maintaining appropriate management across many sites, helping individual populations at a local scale and ultimately facilitating the spread of the silver-spotted skipper. So land management for conservation can provide a mosaic of suitable microhabitats within patches to reduce the extent of declines in cooler years. In addition, the maintenance of large, good quality areas of habitats that are relatively close to each other can increase the landscape-level connectivity among habitat patches and enable populations to expand in warmer years.

This research demonstrated that this species has the potential to move up to 6 km, and easily covers 2 km, which in our changing climate gives it the potential to expand and colonise new habitats if they are available.

Whitethroat, *Sylvia communis*. This relatively common warbler, which is a summer resident, spends the winter south of the Sahara. It lives in the countryside and can generally be found in hedgerows and scrub. Overall its distribution is widespread and increasing. The national whitethroat population crashed by about 70% during the winter of 1968/9 due to severe droughts on their African wintering grounds⁴³ and although the population still hasn't fully recovered, their numbers are increasing. This increase is demonstrated by the Chilterns Breeding Bird Survey data where during 1994-99 they were recorded on 31-59% of surveys and since 2000 they have been recorded on 45-70% of surveys.⁴⁴

Whitethroats are among the bird species that favour young, scattered scrub in which to live and nest.⁴⁵ Scrub is an important wildlife habitat, whether it is a few isolated shrubs or

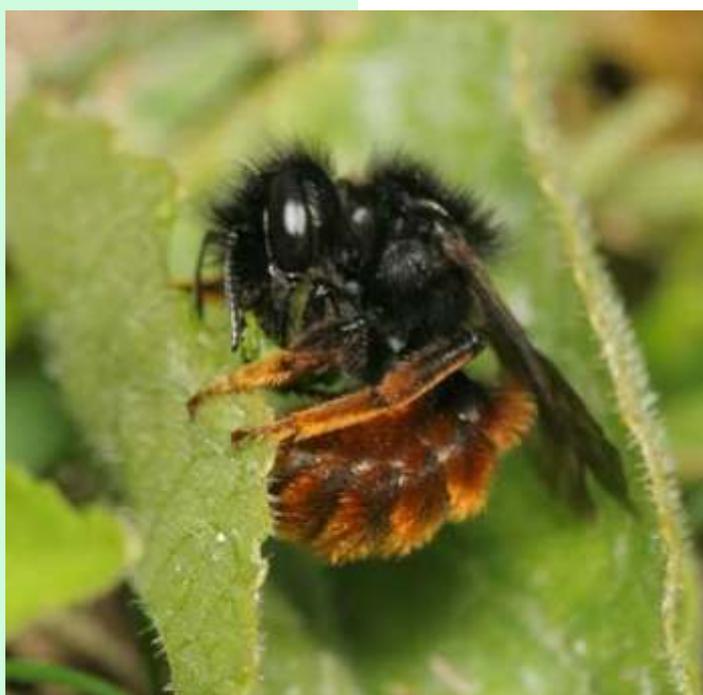
⁴³ www.garden-birds.co.uk/birds/whitethroat.htm

⁴⁴ Bail, T.G., 2013. Farmland Breeding Bird Populations in the Chilterns AONB.

⁴⁵ www.rspb.org.uk/Images/pubscat_tcm9-222199.pdf

young trees, or a dense thicket. It is a natural part of other habitats, such as grassland and woodland and is an important component of the landscape. Well managed scrub and its margins support a range of wildlife. Scrub provides nectar, seeds, fruits, shelter and nest sites for invertebrates, birds and mammals. It is most valuable to wildlife when it is of varied age, species and structure.⁴⁶

In the Chilterns landscape, providing several small patches of low dense scrub is often regarded as best for wildlife as it provides the most diversity in edge habitats.⁴⁷ Maintaining large areas of scrub may be appropriate for conservation, so long as it does not conflict with other aims such as the conservation of open habitats. Scrub on chalk and limestone grassland is an integral part of the landscape but, when well managed, it is quite thinly spread.⁴⁸ Scrub may need to be reduced quite drastically to restore grassland flora, by cutting the brush down to stumps using volunteers or machinery. If the scrub is not too dense and there are not too many thorn-bearing species present, the re-introduction of grazing can stop scrub spreading. Scrub needs to be managed to create a diverse range of structures which could include sunny, sheltered edges, which offer a hot microclimate that is important for insects, scalloped edges that increase the length of edges and provide shelter, allowing it to flower, fruit and seed, as well as a patchwork of scrub and glades and some bramble, deadwood and bare ground. Scrub clearing is ideal work for volunteers as it is possible for them to be sensitive to different species and keep the diversity of this habitat.



Osmia bicolor.
(Photo: www.bwars.com)

Two-coloured Mason Bee, *Osmia bicolor*. This attractive black and bright red solitary bee is generally found on calcareous grassland and open deciduous woodland on chalk and limestone soils. They visit a variety of flowers and, in the Chilterns, play an important role in pollination of the pasqueflower.⁴⁹ They have an intriguing life history: the female nests in empty snail shells, using regurgitated leaves to seal the shell and covering them with piles of dead grass, beech scales or leaf fragments.⁵⁰ When bringing these materials back to the nest site, the bee carries them slung underneath its body, appearing to ride a broomstick.

Osmia bicolor is one of about 260 species of solitary bee in Britain⁵¹ which are different from their sociable cousins, the honeybee and bumblebee. Currently there is a great deal of concern about potential declines in pollinating insects. A number of bumblebee species have undoubtedly declined greatly over the last 60 years, and threats facing honey bees include the Varroa mite, diseases and pesticides. Among the wide range of solitary bee species the picture is mixed and it

is not known if the total numbers are declining. Species of bumblebee and solitary bee that are more selective in their flower-visiting habitats, or have special requirements for nest sites, tend to be the ones that have declined in recent years. The decline in traditionally managed flower-rich meadows appears to be a contributory factor and, where habitat remains, it is often fragmented making it more difficult for bee populations to expand and colonise new areas. If a general decline among pollinating insects becomes established it

⁴⁶ Natural England, 2011. Scrub Management Handbook.

⁴⁷ www.chilternsaonb.org/uploads/files/AboutTheChilterns/Commons/Scrub%20management%20handout.pdf

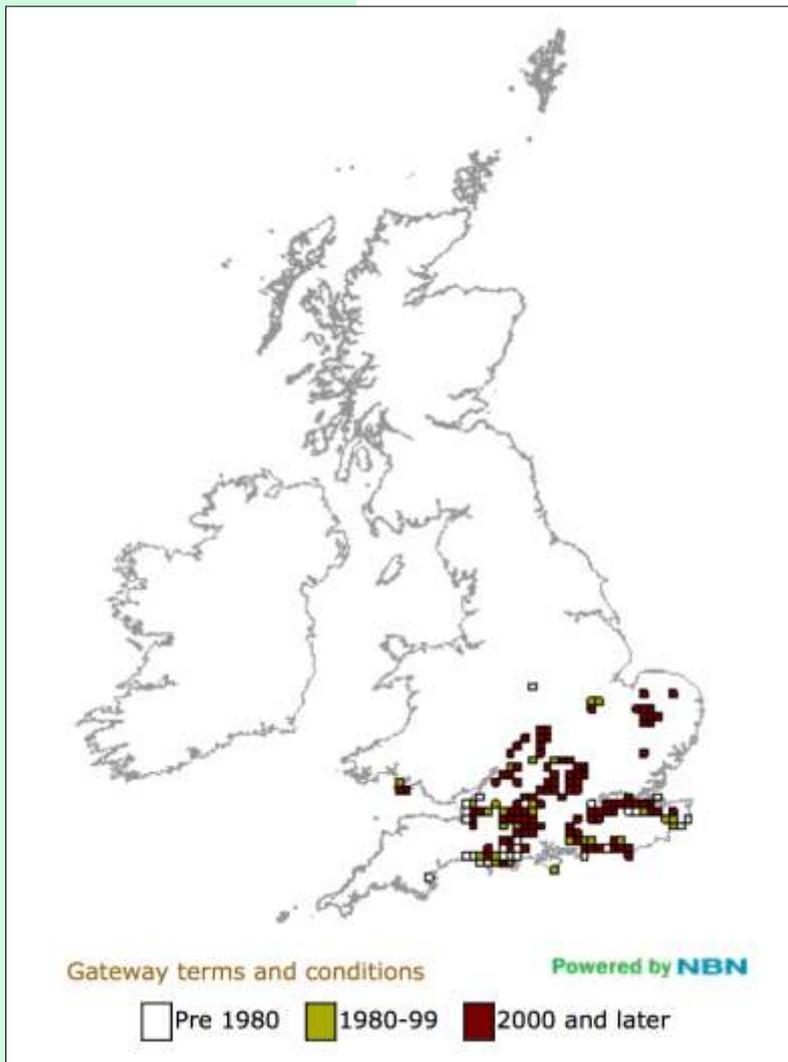
⁴⁸ www.rspb.org.uk/ourwork/conservation/advice/scrub/manage.aspx

⁴⁹ S.Barlow, unpublished research

⁵⁰ www.bwars.com/index.php?q=bee/megachilidae/osmia-bicolor

⁵¹ www.rhs.org.uk/advice/profile?pid=528

Fig. 10
Distribution of *Osmia bicolor*⁵²



will have serious implications since many plants rely on bees and other insects for pollination.

Osmia bicolor is predominantly distributed in southern England and Wales. It is nationally scarce, but is widespread in the Chilterns (Fig. 10).

In the recent National Pollinator Strategy, the government recognised the threats to pollinators as a serious situation which requires action.⁵³ One of this Strategy's aims is to expand food, shelter and nest sites for bees and other pollinators across the country. Many landowners, including the National Trust and Defence Estates, have already committed to specific actions. When the Countryside Stewardship Scheme starts it will deliver change as, even at the basic level, the scheme requires farmers and land managers to provide food and habitats for pollinators over 3-5% of their land. There are opportunities for farmers to increase their subsidies further by choosing the Wild Pollinator and Farm Wildlife Packages, which are focused on providing even more resources to encourage pollinators.

Simple measures to provide food and shelter for pollinators can be found on the Wildlife Trusts 'Bees Needs' website.⁵⁴ This simply describes the measures landowners and managers can take which include: growing more flowers, shrubs and trees; letting areas grow wild; cutting grass less often; not disturbing insect nests and hibernation spots and thinking carefully about whether to use pesticides.⁵⁵ More detail on farming pollinators is also available on the Campaign for the Farmed Environment website⁵⁶ and Buglife.⁵⁷

Taken together, it is hoped that these measures will ensure that *Osmia bicolor* and other insects can maintain the healthy populations that we need to ensure the pollination of our flowers and crops. The Chiltern commons can help by maintaining open flower-rich habitats for pollinators.

Glow-worm, *Lampyris noctiluca*. This fascinating beetle grows up to 25 mm long and produces a strong light easily visible at night. They are generally associated with relatively long grass turf in sheltered areas, which include grasslands, woodland rides, hedgerows, gardens and heathland. Although all life-stages glow to some degree, it is only the wingless adult females that are bright enough to attract our attention - but the attention they are hoping for is from the flying males, who find the females by the light they display. Adult glow-worms cannot feed so they only live around 14 days. After mating they turn off their

⁵² www.bwars.com/index.php?q=bee/megachilidae/osmia-bicolor

⁵³ Defra, 2014. National Pollinator Strategy.

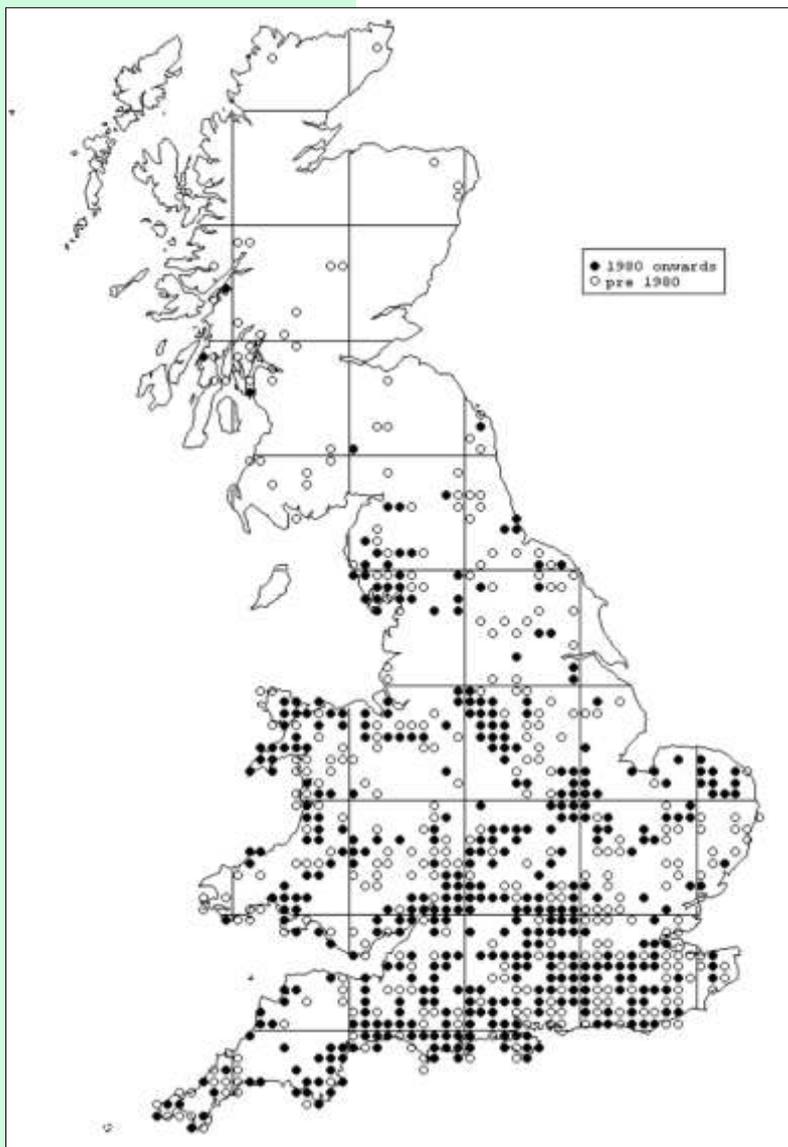
⁵⁴ www.wildlifetrusts.org/Bees-needs

⁵⁵ www.wildlifetrusts.org/Bees-needs

⁵⁶ www.cfeonline.org.uk/cfe_leaflet_pollinators_web

⁵⁷ www.buglife.org.uk/bugs-and-habitats/pollination

Fig. 11
Glow-worm distribution in 1991.
(www.glowworms.org.uk)



light, lay their eggs and die. After a few weeks the eggs hatch into larvae, which survive for one to three summers feeding on small snails which they apparently paralyse before sucking them empty.⁵⁸

Glow-worms are reported from many areas of Britain, with an apparent preference for chalk or limestone areas (Fig. 11). National distribution maps show the glow-worm to be very widespread, and the Chilterns appears to be especially rich in records. However, there are concerns that glow-worms may be declining from a study in Essex which found a 71% decline in the numbers from 2001 to 2010 and contractions in range and population size have been reported from several other counties.⁵⁹

Glow-worms are great fun to search for at night, especially for children. When they are found, it is also easy to report sightings to the Local Records Centres and UK glow-worm survey. Historical recording in the Chilterns has been inconsistent, so it is difficult to assess whether they are increasing or decreasing here. Elsewhere it is thought they are declining for a variety of possible reasons. These include the loss of desirable habitats when they are treated with pesticides and herbicides which are thought to harm the glow-worms and their prey (generally snails), also habitat loss through farming, development or land management, increase in artificial lighting, and possibly the decline in grazing and climate change. One of the national experts, John Tyler, lives in the Chilterns and has written the definitive text on the glow-worm.⁶⁰

Understanding of the glow-worm would be greatly improved by better surveying and monitoring of the species as, currently, records are patchy. Surveying of any species or habitat is done for varying reasons, with

different intensities and levels of accuracy. Harnessing people's enthusiasm for surveys, directing their effort and ensuring results are recorded is key to providing robust and reliable records. A handbook on surveying wildlife specific to the Chilterns has been produced as part of the Chilterns Commons Project.⁶¹ The Magic website provides information about the natural environment across Britain and has a wealth of information. The National Biodiversity Network gateway⁶² can be used to explore UK biodiversity data. These tools make it easier than ever to start investigating your local environment, but there is still plenty of scope for further research. For glow-worms it would be really interesting to set up regular monitoring projects at sites in the Chilterns to see if the species is declining. If this was the case, conservation efforts could be targeted to try and reverse this.

⁵⁸ www.glowworms.org.uk

⁵⁹ Gardiner, T. 2011. *Glowing, glowing, gone? The plight of the Glow-worm in Essex.* British Naturalists' Association

⁶⁰ Tyler, J. 2002. *The Glow-worm.*

⁶¹ Harvey, M, 2014. *Surveying Wildlife in the Chilterns.*

⁶² www.nbn.org.uk

Bearded Tooth in New Forest
(Photo: Simon Currie)



Hericium tooth fungi, *Hericium erinaceus*, *Hericium coralloides*, *Hericium cirrhatum*.

This is a rare and spectacular group of fungi that is associated with old deciduous woodland and ancient wood pasture where there has been continuity of old trees. These three species are characterised by a large fleshy fruit body covered with spore bearing teeth or spines.⁶³ Most records for these species are in southern England, particularly the New Forest (Fig.12). All are listed in the provisional Red Data List of British Fungi.

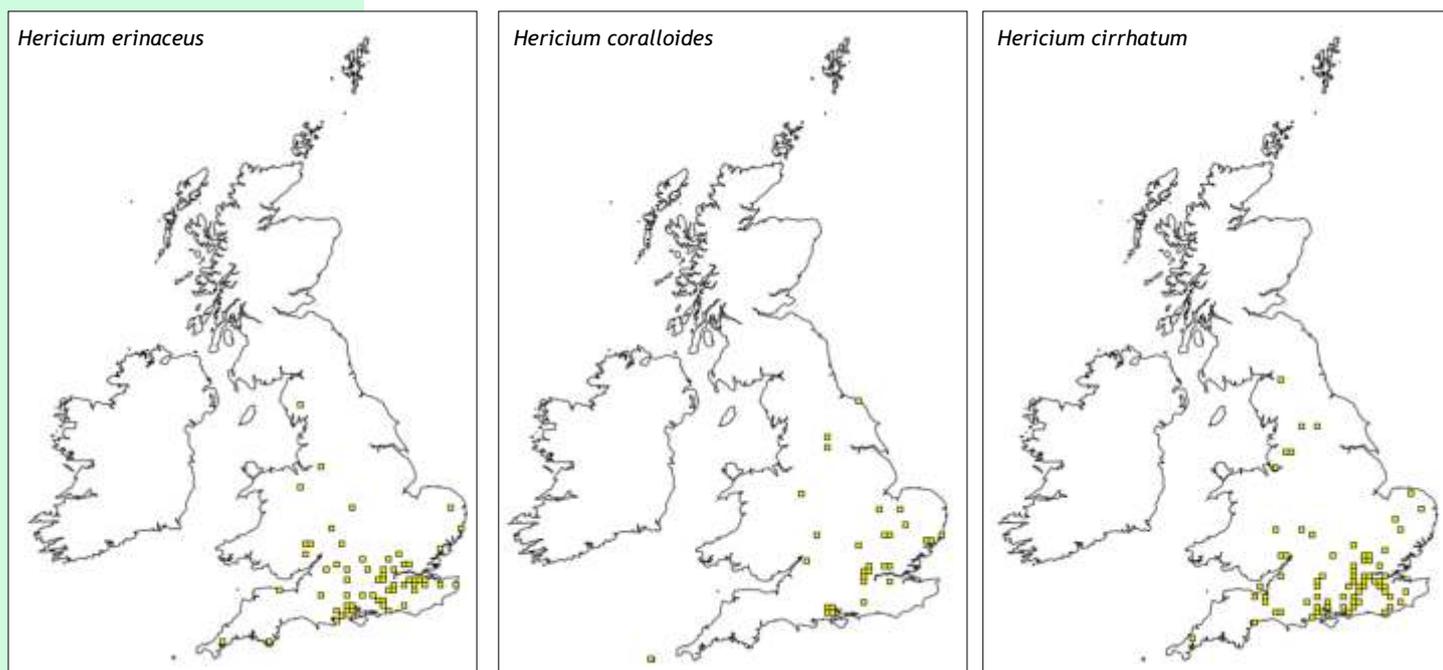
These species fruit from late August to December, or earlier in *H. cirrhatum*, and persist for up to six weeks. *H. erinaceus* and *H. coralloides* are known to fruit on the same tree annually for several years, while fruiting *H. cirrhatum* is more sporadic. It is difficult to determine the exact distribution of *Hericium* tooth fungi due to their inconspicuous nature; also fruit bodies may not appear every year (particularly *H. cirrhatum*) and specimens of *H. erinaceus* may be high above the ground so difficult to locate.

Bearded tooth. *H. erinaceus* grows mainly on the wounds of old standing living trees, most commonly on beech (*Fagus sylvatica*), but occasionally on oak (*Quercus robur*). It is often found fruiting in a scar from a broken branch, producing a heart-rot following infection through the scar. It often fruits high up on trees, close to the trunk, where branches are shed in high winds, but can also be found on the sawn ends of felled trees, and on the trunks of fallen trees. Because of its rarity, it is accorded the highest level of protection for a fungus in the UK.⁶⁴ This species was recorded on Naphill Common in 2011.⁶⁵

Coral tooth. *H. coralloides* commonly fruits on logs lying on the ground, possibly favouring these over standing dead wood because of a higher moisture content. Most specimens are found on beech, but some have been recorded on ash (*Fraxinus*) and elm (*Ulmus*).

Tiered tooth. *H. cirrhatum* is found on both standing trees and fallen branches and logs, most commonly on beech, but sometimes on ash, elm and oak and possibly birch (*Betula pendula*). This species has been recorded in Buckinghamshire.

Fig. 12
Distribution maps of
Hericium erinaceus,
Hericium coralloides and
Hericium cirrhatum



⁶³ Pegler, D.N. Roberts, P.J. and Spooner, B.M., 1997. British Chanterelles and Tooth Fungi. Royal Botanic Gardens Kew.

⁶⁴ www.kew.org/science-conservation/plants-fungi/hericium-erinaceus-bearded-tooth

⁶⁵ www.bucksfungusgroup.org.uk/Documents/Hericium%20erinaceus.pdf

Continuity of mature woodland is essential for the survival of *Hericium* tooth fungi. The main factors affecting these species are the removal of deadwood and the loss of broadleaved woodland to commercial forestry. Dead wood, whether standing or fallen, is important to the health of forests, not just for nutrient recycling, but also for the microhabitats it provides for fungi, lichens, mosses, beetles and birds.⁶⁶ Optimal ways to manage veteran trees for wildlife is the subject of a Natural England paper,⁶⁷ the Ancient Tree Forum website⁶⁸ and training materials produced by the Veteran Tree Network.⁶⁹

Really old trees are a rarity in today's landscape and worth protecting as they provide valuable wildlife habitats. Some of the Chiltern commons support veteran trees, so it is important that land managers know how to maintain them for wildlife and try to ensure that the next generation of veteran trees are protected for the future.

4 Conclusion

This paper started by taking a broad look at the global and national perspective of the state of the natural environment. It has shown how concern over climate change and loss of biodiversity has evolved from awareness into proposals for adaptation and also action by the government. On a local level it considered how these factors influenced species on the Chiltern commons which demonstrated links to the bigger picture.

- Delivering landscape scale conservation has already led to some conservation organisations and land managers focusing their efforts. For example, the North Chilterns Chalk scheme is working towards improving and extending chalk grassland habitat around Luton to benefit wildflowers such as the harebell.
- We recognised the value of bigger areas of protected land as core areas which are rich and diverse in species. Places like the Ashridge Estate form a valuable core area of heathland habitat which is rare in the Chilterns AONB. This estate links several adjacent commons where heathland species can thrive and spread.
- We talked about the benefits of habitat management and the importance of considering the introduction of elements of the wider landscape to form a patchwork of habitats, for example, by managing and restoring flower-rich habitats which provide nectar, pollen and nesting sites for pollinating insects such as the two-coloured mason bee. We also reviewed the benefits of improving ponds for species like the palmate newt and providing dead wood habitats for rare fungi species like the *Hericium* tooth fungi. Finally, we talked about how habitats like scrub need to be managed as part of a habitat mosaic for birds such as the whitethroat.
- The benefits of joining up habitats to allow the spread of species like the dormouse and silver-washed fritillary were demonstrated.
- The silver-spotted skipper demonstrated that certain species are quickly able to recover from small population sizes, so long as the right conditions and habitat are available. This showed how it is possible to reverse some of the current losses in biodiversity.

⁶⁶ [www.forestry.gov.uk/pdf/lifeinthedeadwood.pdf/\\$file/lifeinthedeadwood.pdf](http://www.forestry.gov.uk/pdf/lifeinthedeadwood.pdf/$file/lifeinthedeadwood.pdf)

⁶⁷ Natural England, 2000. Veteran Trees: A guide to good management.

⁶⁸ www.ancient-tree-forum.org.uk/ancient-tree-forum

⁶⁹ www.vetree.eu/en/page/94/Training+products

- The government's support for land managers to play their part in addressing the state of our natural environment is getting stronger. The new Countryside Stewardship Scheme and habitat planning tools suggested in the Adaptation to Climate Change document are all positive steps forward.

This report also highlights that:

- Information is available. The Chilterns Conservation Board, Natural England, Wildlife Trust, or conservation charities (such as the Freshwater Habitats Trust) are available to provide expertise for all site managers. There are many websites which help site managers make choices and find resources such as SheepKeep and WardForester. Local Record Centres can provide a wealth of information, as well as gathering together new records and surveys, and online maps of habitat, protected land, farm stewardship and species distribution are all accessible.
- We can all play a part in helping to keep records accurate, informative and up-to-date. This highlights the importance of surveying and monitoring data for species such the glow-worm.
- The role of communities and individuals in supporting conservation of their common land and other green spaces is pivotal to making the land valuable space for biodiversity.

The Chilterns AONB is fortunate to have so many areas of common land, half of which are of high ecological value. These areas will usually have some form of management plan already in place and these are invaluable in directing management with everyone's agreement. However, historically, management plans have often been limited to the management of a specific site in isolation. This report demonstrates why management plans should also refer to a site's situation with respect to the local landscape of wildlife habitats and consider ways to integrate into this broader picture.

For people living near smaller areas of common land without a wildlife designation, this report shows how any patch of land, however small, is important green space and that there are tangible benefits in thinking of your local common as part of a larger ecological network.

The common land resource in the Chilterns already forms an essential component in a landscape of importance for biodiversity. However, with broader thinking and the correct management, it has the potential to further contribute to wildlife by developing stronger links with local ecological networks.

Appendix

Signposting for landowners and managers to information, advice and support.

In addition to the references listed in this paper, these are the main resources.

- Chilterns Conservation Board. www.chilternsaonb.org
 - Interactive map of common land.
 - Chilterns Commons Project - training workshop materials. Covers grassland management, grazing, managing scrub, restoring ponds, identifying butterflies and more.
- Natural England. www.gov.uk/government/organisations/natural-england

Recommendations for further research based on issues identified in topic papers.

Proposed studies could include:

- An evaluation into how effectively Landscape Scale Conservation can be achieved with existing resources. Are these resources adequate?
- Investigate how survey, monitoring and recording resources can be best targeted to provide evidence needed to monitor changes in the landscape.

Local Spaces -

Profit or Loss

Dr Victoria Edwards

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The Chiltern commons are typical of those in the south east of England: small and numerous, but with the potential to provide important natural green space whilst contributing to environmental sustainability. In order to keep commons in good heart, they need to be managed. However, as activities such as grazing and coppicing become unviable on the commons, owners need to find sustainable roles beyond traditional agricultural and silvicultural practices. This paper examines ways of making management pay. It begins by exploring the economic, social and environmental challenges of sustainable management within the context of contemporary life. Section 2 identifies the different ways in which revenue contributions might be made towards the management of commons. Section 3 examines the relevant legal and other restrictions and Section 4 offers insights into where management proposals might offer multiple positive benefits, but also where there is the potential to cause conflict with environmental and social interests. Section 5 explores alternative funding streams for commons. Finally, Section 6 concludes with practical tips for the owners and managers of commons in the Chilterns and identifies areas for further research. Full references, links and resources are provided in the footnotes and appendix.

1 Background: Commons in the 21st century

“ *What is common to the greatest number has the least care bestowed upon it. Everyone thinks chiefly of his own, hardly at all of the common interest.* ”
(Aristotle, Politics, Book II, ch.3)

In 1968, Garrett Hardin published the Tragedy of the Commons, using the example of a grazing common to explain the inevitable depletion of scarce, shared resources. Hardin describes how each commoner, because he receives direct benefits from his own animals and bears only a delayed share of the cost resulting from overgrazing, is motivated to add more and more animals to the common. The tragedy is that the common becomes overgrazed as “each man is locked into a system that compels him to increase his herd without limit.”¹

A succession of authors have criticised Hardin for his parable, largely because of its failure to recognise that individuals can design and enforce rules to prevent the tragedy occurring.² A study of the English commons would have revealed the importance of rules and collective action. Control and use of English common land has always required the coordination and cooperation of a whole host of actors: the freehold owner, those holding rights over the common (the 'commoners'), others deriving benefits from the common, and often some third party enforcement agency. Contrary to Hardin's dismal view of the inevitability of a

¹ Hardin, Garrett. (1968). The Tragedy of the Commons. Science, 162:1244.

² Dasgupta (1982:13) commented that “it would be difficult to locate another passage of comparable length containing as many errors”.

tragedy, “A sophisticated armoury of local bylaws, enforced by the law-makers - in this case the commoners themselves - existed to keep the common pasture in good heart, to protect the grazing animals against disease and accident, and to keep the common open to all occupiers.”³ In order to keep commons in good heart, they need to be managed. However, it is an irony of the 21st century that it is unlikely to be over-grazing that will cause the demise of common land in England, but rather under-grazing. As land use practices such as grazing and coppicing become unviable on the commons, owners need to find sustainable roles beyond traditional agricultural and silvicultural practices. This is especially true in the crowded south east, where common land does not lie in large tracts, but provides numerous pockets of green space within a densely populated landscape.

In England there are 400,000 ha of registered common land, comprising over 7,000 separately registered units⁴ and, although the south east has only 6% of England's common land by area, it has 22% of the total number of commons - more than any other region.⁵ There are about 250 registered commons, covering over 2100 ha, within or close to the Chilterns Area of Outstanding Natural Beauty (AONB). Commons were once much more extensive in the Chilterns. In the last 200 years, 82% of Chiltern commons' open environments and heaths have been lost to five main causes: enclosure for agriculture; building new villages; developing industry; natural regeneration of woodland due to under-grazing; and deliberate tree-planting.⁶ The remaining Chiltern commons are typical of those in the south east: small and numerous, but with the potential to provide important natural green space whilst contributing to environmental sustainability. Their location, close to London in the south of England, makes them a very valuable, but problematic resource. The Chiltern commons form a crucial part of the natural green space resource for immediately local communities and day visitors from nearby urban areas. Over 55 million leisure visits are made each year to the Chilterns and growing populations in nearby towns suggest that the demand for recreation will only continue to increase.

The social value of the commons for providing green space for exercise and enjoyment is apparent.⁷ While the value of commons in protecting significant biological and archaeological assets has always been acknowledged, the value of the commons in providing 'ecosystem services', such as biodiversity protection, flood alleviation, and carbon offsetting, is increasingly recognised.⁸ There is just one leg of the 'sustainability stool' that needs securing now: the economic one. A key determinant of the future success of commons in the Chilterns will be the ability to derive income from their varied uses. In short, we need to find ways to make the commons pay.

³ Shoard, M. (1987:45). *This Land is Our Land: the struggle for Britain's countryside*, Paladin Grafton Books, London.

⁴ <http://archive.defra.gov.uk/rural/protected/commonland/about.htm> In addition to registered common land, there are also commons with their own local or private Acts of Parliament, including the New Forest and Epping Forest. These make the total area of common land in England around 401,514 ha (<https://www.gov.uk/owning-common-land>).

⁵ Aitchison, J., Crowther, K., Ashby, M. and Redgrave, L. (2000). *The Common Lands of England*. University of Wales, Aberystwyth.

⁶ Chilterns Conservation Board. (2014). *Chilterns Area of Outstanding Natural Beauty Management Plan 2014-2019: A Framework for Action*, Chilterns Conservation Board, Chinnor.

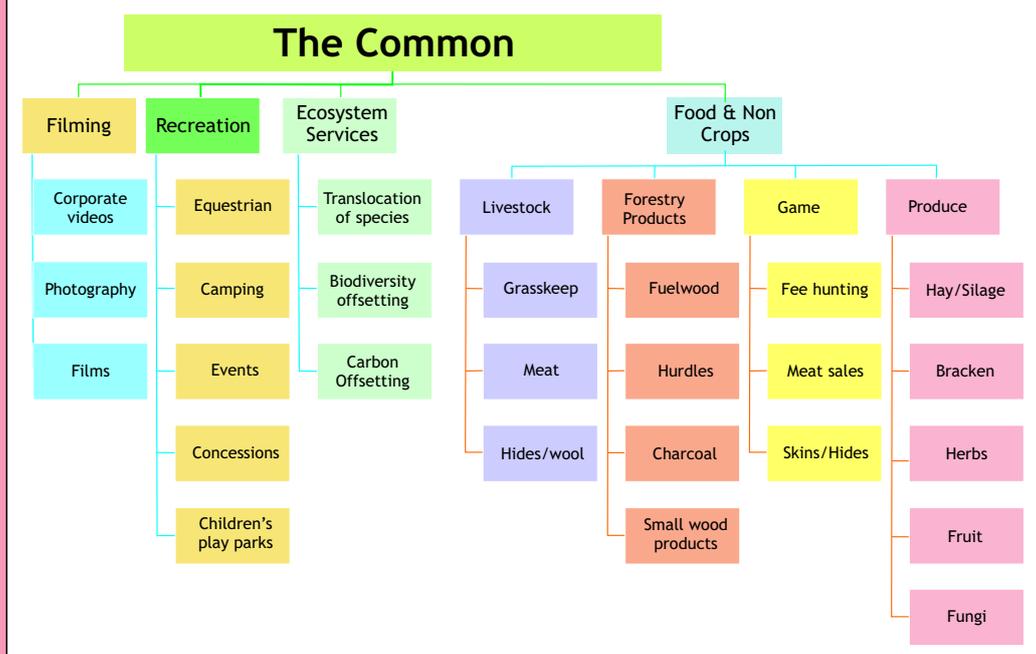
⁷ For more about recreation on commons, see the paper in this series *Local Spaces : Open Doors*.

⁸ For more about the ecology of commons, see the paper in this series *Local Spaces : Changing Environments*.

2 Making the Commons Pay their Way

In order to derive revenue streams from common land, owners and their managers need to find ways of charging for products and services derived from the common (Fig. 1). In the case of products, the values attached to commons can be more easily captured, since tangible products (such as food, fuel, fruit and timber) can be appropriated, priced and sold. Managers need to find a means of harvesting the products sustainably, without jeopardising the future of the common, by constructing a pricing policy and creating markets for sale. Some products will reflect traditional uses of commons, such as meat and

Fig.1: Taxonomy of Products and Services from a Common



wood products, while others might represent newer trends and tastes.

Managers might also be able to capture some of the benefits of services that the common provides, such as providing a backdrop for recreational activities or hunting. Where the common is supporting a specific activity, the common's owner might expect payment in the form of a lease, licence or management agreement. More problematic for the owner is when the services provided by commons have traditionally been regarded as 'public goods', with an expectation that they will be

provided freely. Services that display characteristics normally associated with public goods are often difficult to charge for because they tend to be both non-rival (one person's enjoyment does not detract from another person's enjoyment) and non-excludable (it is difficult to exclude people from enjoying the benefits of the good). However, in order to 'capture' the public goods benefits of the common, and ensure that some of that benefit is returned to sustaining the common itself, we need to find ways of linking benefits to some sort of income flow. In short, we need to (i) directly charge beneficiaries for the services that the commons provide and/or (ii) secure some monetary payment that at least acknowledges the benefits that the commons are supplying to a wider public audience.

The appropriate means of deriving revenue from commons in the Chilterns will depend heavily upon related land management needs. First and foremost, managing bodies will need to decide on correct land management processes and then investigate means of paying for them, either through related charging or by creating quite separate income streams derived from activities that are compatible with, and possibly complementary to, management practices. Sections 3 and 4 of this paper examine the practical issues surrounding making the commons pay. In the meantime, it is useful to provide some examples of the types of products and services that a common might provide.

2.1 Selling Products from the Commons

Grazing

In an ideal situation, a grass common would be grazed by one or more commoners, whose livestock would keep in check the vegetation on the common. However, as a result of the failure to register them under the Commons Registration Act 1965 Act, grazing rights on



Grazing herd - Brill Common
(Photo: Roger Stone)

many of the Chiltern commons ceased to be exercisable after 31 July 1970. If no grazing rights remain, or those commoners with rights are not exercising them, then the landowner may let or use the surplus grazing. Where an owner chooses to graze a common in such circumstances, the rights exercised have the characteristic of a right of common. For example, there will be a need to limit the number of grazing animals according to the area available (to prevent the tragedy occurring) and an assumption that adjacent landowners will fence against the common.

Breeds used for grazing commons are normally hardy native breeds, well adapted to dealing with the scrubby vegetation and difficult terrain typical of ungrazed commons. The Grazing Animals Project (GAP) is part of the Rare Breed Survival Trust, and is a partnership of farmers, land-managers and organisations that are

committed to promoting the benefits of grazing. GAP provides information, advice, training and networking support to anyone interested grazing and has a website full of useful information.⁹

EXAMPLE: Burnham Beeches is located in Buckinghamshire, to the west of London and is a Site of Special Scientific Interest (SSSI), National Nature Reserve (NNR) and Special Area of Conservation (SAC). It is owned by the City of London and managed as a registered charity, under a management plan. When grazing and pollarding on the common stopped about 100 years ago, scrub and young woodland began to outgrow the open pasture and heath and the old pollards were left to compete for light and space with the younger trees. With the support of the visiting public, grazing animals have now been re-introduced to some parts of the Beeches, helping to keep the habitats open, and so making it better for people and wildlife. The benefits of using grazing animals, the challenges they pose, and the proposals for expanding the area grazed, are all explained in the leaflet *Restoring the pastoral landscape of Burnham Beeches*¹⁰ and in *Grazing Restoration Project fact sheet*.¹¹ Details about the grazing expansion project, using 'fenceless fences', the livestock used, frequently asked questions and a number of supporting documents and information leaflets are available on Burnham Beeches' Grazing Lowdown webpage.¹²

Game

Taking game from a common is the right of the owner of the common's freehold. Six species of deer are currently found in the wild in the UK, with roe, fallow and muntjac being the most commonly shot in the Chilterns. Although data on UK deer populations is generally sparse and approximate, there is general agreement that wild deer populations have been increasing. However, for most owners, deer stalking and venison revenues will merely help to defray the costs of forest management, rather than providing principal revenue streams.

The first step for any owner is to draw up, or have drawn up, a deer management plan, including a detailed description of the survey/census process used, and an evidence-based

⁹ Grazing Animals Project <http://www.grazinganimalsproject.org.uk/>

¹⁰ <http://www.cityoflondon.gov.uk/things-to-do/green-spaces/burnham-beeches-and-stoke-common/about-us/Documents/grazing-restoration-project-summary-2012.pdf>

¹¹ <http://www.cityoflondon.gov.uk/things-to-do/green-spaces/burnham-beeches-and-stoke-common/about-us/Documents/grazing-restoration-project-leaflet-2012.pdf>

¹² <http://www.cityoflondon.gov.uk/things-to-do/green-spaces/burnham-beeches-and-stoke-common/about-us/Pages/Grazing-lowdown.aspx>

rationale for recommendations concerning culling. A useful account of how to engage a reliable deer manager/stalker is given at <http://www.woodlands.co.uk/blog/practical-guides/deer-stalking-and-woodlands/#>, including practical tips on the management agreement, insurance, certificates and safety. Further information on deer management plans can be found at the Deer Initiative website.¹³

Owners of secondary woodland commons rarely walked by recreational users might explore the potential of letting stalking. A stalker who rents hunting rights from an owner might subsequently take fee-paying clients out and/or sell the venison. The stalking fees charged to the clients vary regionally and depend on whether charged per day or per deer shot: they can also depend upon the species, size and sex of the deer. Where such activities are profitable, some sort of payment to the owner in return for the stalking rights would seem reasonable.¹⁴ The consequences of letting stalking should be considered carefully. First, as profit becomes the focus of the activity rather than habitat management, let stalkers might be inclined to allow deer numbers to rise rather than control them. Also, if the stalker takes guests out, they could have varying skills and pose a safety problem on a well-used common.

EXAMPLE: Cervus UK¹⁵ leads hunting trips for both fallow and muntjac, over Hampshire, South Oxfordshire and the Cotswolds. The day rate per hunter is around £180, and includes two outings. Cervus currently manages the deer for Nettlebed common, but as part of an overall deer management plan for the Nettlebed Estate.

Many Chiltern commons are heavily populated with other recreational users and so introducing any deer management needs to be done carefully, with due consideration of the risks involved and close consultation. Managed stalking, carried out in conjunction with the owner of the common is advisable. Englefield Estate in Berkshire introduced stalking recently into a woodland that receives over seventy thousand visitors a year and has not encountered any problems or complaints. The Estate worked with the local Wildlife Trust and Parish Councils to publicise the stalking and let people know why it is required (to protect the habitat). Stalkers take half the sale value of the venison, with the Estate taking the other half, netting the Estate around £40 per animal. Overall, the stalking has turned a necessary habitat management activity from a cost to a small revenue stream.

Forestry grants are available to help pay for deer control and would at least contribute to the costs incurred in hiring deer management services.¹⁶ While not producing great revenue streams, having a stalker present, particularly at night, can be beneficial to the common in terms of preventing poaching, fly tipping, illegal camping and other unwanted activities.

Hay

Many Chiltern commons have become isolated from the farms around them because of the development of farming systems (for example from mixed to arable) and increased urbanisation. For commons that are traversed by roads, the risk of injury to animals or motorists is perceived as too high to justify turning stock out on to the common. On some commons, recreational use may also be so high that commoners are no longer willing to turn stock out, particularly where uncontrolled dogs are an issue. Taking a hay crop off the common can be an alternative solution to grazing and provide the owner with a valuable

¹³ <http://www.thedeerinitiative.co.uk/>

¹⁴ However, most professional stalkers would claim that any potential profits are so small as to prohibit onward payment to the owner.

¹⁵ <http://www.cervus-uk.co.uk/deer-management.asp>

¹⁶ For further information, see www.forestry.gov.uk

source of revenue. Mowing can also be used in restoration management to reduce dominant species that are difficult to control with grazing. Meadows are normally shut off from grazing, or lightly grazed in the spring and cut for hay later, when late flowering species have set seed and birds have nested (i.e. late June-July).

EXAMPLE: Lynchmere, Stanley and Marley Commons¹⁷

In 1998, The Lynchmere Society purchased 125 ha of Lynchmere, Stanley and Marley Commons (after a successful fundraising appeal and a maximum grant from the Heritage Lottery Fund). The commons had become largely overgrown by scrub birch, scots pine and dense bracken. A condition of the grant was that the commons be restored to lowland heath. The Society started with contractors, but now its own volunteers are fully responsible for maintaining the commons and returning it to managed heathland. Around 75 volunteers carry out a programme of tree and scrub clearance, bracken control and general renovation activities, which mostly take place over the winter months (October to March). Dates are published in the Society newsletter, parish magazine and on the Society's website and the volunteers' blog site. The commons are also grazed by traditional Sussex Cattle owned by a local smallholder, which help with control of bracken and bramble. The Society has also laid a hedge, planted and continue to maintain hazel coppice, established a community orchard and manage several wildflower hay meadows. In 2014, the volunteers collected and stacked 920 bales of wildflower hay, baled by a contractor from one meadow, which they sold at £2.50 a bale. The commons are a Local Nature Reserve and are managed under a Higher Level Stewardship grant from Natural England. All volunteer working is coordinated with the Society's management plan. The Society has five Volunteer Wardens.

Wood

While commons tend to be associated with open landscapes, some of the Chiltern commons are woodland or wood pasture. Nearly 10% of the common land remaining in the Chilterns AONB is ancient semi-natural woodland that has existed for more than four hundred years, albeit modified in appearance and context through time. Secondary woodland represents 26% of all woodland in the Chilterns, where trees have colonised and succeeded on land previously used for other purposes, typically grazing. The greatest concentrations of secondary woodland are found at Barton-le-Clay (Beds), Aldbury (Herts) and Ipsden (Oxon). In comparison to ancient woodland, secondary woodlands are usually quite small, normally 5 to 10 ha. The resultant growth in vegetation might comprise shrubs (such as gorse and bramble), woody shrubs (e.g. blackthorn, hawthorn, privet, dogwood, wayfaring trees) or secondary woodland (e.g. birch, pine, oak, ash and sycamore). Encroachment of secondary woodland species has had consequences on landscape, wildlife, archaeology and amenity.

If the woodland or scrub on a common needs managing, finding outlets for related products can help defray management costs. This might be selling timber or woodchips directly from the common, or by allowing the contractor to retain the timber in return for a reduced contract cost. Wood from the Chilterns is used for a variety of purposes including firewood, charcoal, fencing, building timber, woodcrafts and furniture. The Chiltern Woodlands Project¹⁸ promotes and encourages the sensitive and sustainable management of Chiltern woods and produces publications and training workshops (e.g. using mobile sawmills, thinning woodlands, or managing woodlands for woodfuel) for any owner wanting to make the best of their woodlands. It also offers consultancy services to develop woodland management plans, obtain felling consent and grants from the Forestry Commission, select and mark trees for felling, organise work using contractors, and carry out woodland

¹⁷ <http://thelynchmeresociety.org>

¹⁸ <http://www.chilternsaonb.org/woodlands-project.html>

ecological and archaeological surveys. An excellent brochure produced by the Trust for Oxfordshire's Environment, Making the Most of Your Oxfordshire Woodland, provides all sorts of ideas on products from woodlands, with case studies and costings.¹⁹

Small wood and garden products

Although High Wycombe has been the centre of the UK furniture industry for 200 years, the market for Chilterns wood has declined dramatically because of the prevalence of cheaper imported timber from Europe and America. The furniture industry has also substituted metal and plastic for wood in many of its products. Nevertheless, a growing number of small wood companies are dedicated to the milling and working of wood from England's woodlands, producing furniture, charcuterie boards, platters, name plaques, garden ornaments and other craft items.

EXAMPLE: Adam King, a woodturner and carver, makes 'besom brooms' (picture a traditional witch's broom) in his workshop in High Wycombe. The brooms are made from birch twigs, bound with binding wire or willow, and fixed with a hazel handle. Although some of his customers are indeed modern witches, the brooms are also practical tools.

Woodland owners also might be able to source markets for coppiced wood products, such as beanpoles and pea-sticks for allotments, willow for living willow garden structures and additional craft products. The best place to sell these is at garden fairs and festivals, farmers' markets and at the common's own festivals. Typical prices charged for products are around: £10 per bundle of 12 bean poles, £5 per bundle of vegetable/plant markers, £15-£60 for wooden name plaques, depending on quality, and anything from £2-£25 for small wooden toys, key rings and souvenirs. Coppice Products is a collective marketplace for producers, allowing traditional producers to find customers locally. It has an online coppice product shop and acts as a showcase for coppice workers.²⁰

EXAMPLE: Alan Waters began working woodlands when he was 14 years old and is now a self-employed, full-time coppice worker. Alan runs courses at West Dean College, near Chichester,²¹ and other locations, and sells his items through fairs. He features on various videos, explaining the craft of making 'faggots, pimps and benders' - all traditional items from coppice woodlands. A faggot is bundle of sticks (of around 18 inches long) that was used as fuel for kilns, but is now used in pizza and bread ovens and can be used for shoring up river banks in flood control. When used in ovens, faggots give off a very intense heat, very quickly. The Sussex 'pimp' refers to a bundle of kindling of some twenty five small lengths (often of birch) tied up with tarred string, with larger split sticks on the outside of the cylindrical shape (for appearance and better burning). They can be sold as kindling and are favoured by hotels because of their decorative appearance. Finally, a bender is a tent made of good, strong, bent wooden poles and a sheet.

Fuelwood

Recently, the Renewable Heat Incentives (RHIs)²² offered for biofuel boilers have revived the market for firewood by offering financial support to encourage the uptake of renewable heat. The RHI will pay per kWh of heat produced from renewable sources for 20 years.²³

¹⁹ <http://www.trustforoxfordshire.org.uk/Downloads/Woodland%20brochure%20web.pdf>

²⁰ <http://coppice-products.co.uk/>

²¹ <https://www.westdean.org.uk/CollegeChannel/Tutors/TutorProfilesandWork/AlanWaters.aspx>

²² The Renewable Heat Incentive has two schemes - Domestic and Non-Domestic, both of which are administered by Ofgem. They have separate tariffs, joining conditions, rules and application processes. <https://www.ofgem.gov.uk/environmental-programmes/domestic-renewable-heat-incentive>

²³ Domestic producers (i.e. householders) with biomass boilers and stoves, who are approved on an application submitted by 31 March 2015, will receive 10.98p for 7 years, by quarterly payment. Tariff changes due to degeneration will be announced by DECC by 1 March 2015 and updated on Ofgem's website by 15 March 2015.

Firewood can be produced by selectively thinning out poorer and deteriorating trees, so that others can develop into higher value, larger timber trees and also from coppice or woodland clearance. Firewood might be sold as firewood or chips. Logs are the traditional method for selling wood fuel and probably the easiest to produce, market and distribute. Most hardwoods can be used but some contractors prefer to use species such as ash and beech, which are the commonest trees in the Chilterns. Logs should ideally be dried for at least a year so that they produce more heat. Wood chips, which are used by biomass boilers, are normally demanded by customers such as schools, care homes and rural offices, which demand a regular and reliable source. The chips must be dried to a low moisture content and the producer would need access to a chipper, drying and storage facility: all of which demand considerable investment. All species can be used for chips, but hardwood logs sold for firewood have a higher value, so chips are most commonly made from lower value conifers. As a result, logs are likely to be a preferred product from a common, as they can be sold directly or through a contractor for a higher net return. Broadleaved stems (especially straight ones that can be easily converted using a firewood processor) sell for around £20m³ standing and £35+m³ stacked at a roadside.

EXAMPLE: on Nettlebed Common,²⁴ a major felling project undertaken by the owners of Nettlebed Common, Nettlebed Estate, recently cleared an area to be restored to grassland, which existed fifty years ago. A team of volunteers was then given permission to work in the central area, which is known to have been heathland in the past, in order to regenerate the heather, clearing by hand in order to avoid damage by heavy machinery. Most of the trees felled were sold as firewood to H G Matthews Brickworks, a family-run business which has been producing traditional handmade and machine-made bricks at Bellingdon, near Chesham since 1923.²⁵

Charcoal

The demand for charcoal in the UK market is around 60,000 tonnes per annum, of which up to 95% is imported from Africa and South America, often from non-sustainable sources. UK produced charcoal is generally of higher quality than imported charcoal: the wood used is typically less dense, giving the charcoal a carbon content as high as 96%, compared to only

60% to 70% in many imported varieties. This means that it is easier to light without the need for oil based accelerants and is capable of producing a consistent, even heat, more quickly.

Modern charcoal production has been made easier with the design of charcoal 'retorts': a modern kiln on wheels. A retort is a twin-oven kiln that can be used to convert wood, straw or other materials to charcoal and biochar. Inside the main casing are two main barrels, protected by an insulating fleece. In the centre (with a wall of fire bricks either side), is the burning chamber, where the fire is lit. The barrels are stacked with wood (or straw) and the doors sealed. Once the kiln reaches about 300°C the volatile gases begin to escape through the pipes at the bottom and are redirected into the fire chamber where they burn, raising the temperature to about 600°C.

Charcoal Retort
(Photo: Derek Tippetts)



²⁴ <http://www.nettlebed-commons.org/>

²⁵ <http://www.hgmatthews.com/>

Retorts offer improved production efficiency, resulting in higher quality charcoal. Since retorts can be removed from the site after production, they leave no impact on the woodland, and can be shared amongst a number of woodland sites. The output of a standard retort depends on the wood species burned and its seasoning. High quality charcoal can be produced within a day and 100% of loaded wood is charcoaled, with minimal ash or waste and up to 75% fewer pollutants when compared to traditional ring kiln methods. The cost of a retort is around £15,000 (plus VAT), so they need high throughput to justify the investment. Nevertheless, their portability makes them a sensible capital item to be shared amongst commons.

EXAMPLE: Pondhead Conservation Trust, New Forest²⁶ is a small registered charity that was set up in 2014 by a group of enthusiastic volunteers who wanted to manage a 76 ha block of woodland for biodiversity and public enjoyment. The woodland, which comprises oak standards with an understorey of hazel coppice, has not been grazed for well over a century. Much work has been done to get the woodland back into an effective coppice rotation, but more cutting is needed, providing a healthy supply of overgrown coppice wood

for some time. In order to defray some of the costs of management, the Trust have started charcoal production. A grant from the National Park Authority's Sustainable Development Fund and the New Forest Trust paid for a Charcoal Retort from Exeter Retort Company.²⁷ The Trust has undertaken four burns so far and is perfecting its charcoal making skills. Premium quality charcoal lights very easily and burns very cleanly, but it is lighter and bulkier than poorer quality charcoal and so needs bagging at smaller weights. The Trust plans to sell the charcoal locally, directly to consumers at £6 for 3kg bags, and wholesale to farm shops for £4 per 3kg bag. It is also hoping to sell 16-17kg 'bulk' bags to local hotels for around £150, sold in sacks purchased from garden centres for £3 each.



Volunteers at Pondhead Conservation Trust
(Photo: Derek Tippetts)

Skins, Hides & Wool

The Nude Ewe is a non-profit Community Interest Company (CIC) supported by the Chilterns Conservation Board. Since Nude Ewe produces 100% pure undyed, unbleached British wool spun from local nature conservation flocks, it is able to charge a small premium. Proceeds from Nude Ewe sales are returned to the flock owners and help defray some of the costs of grazing. Such initiatives might be useful in adding value to existing grazing management schemes, but are unlikely to provide sufficient incentive alone to stock a common.

Bracken Sales

Bracken *Pteridium aquilinum* is a feature of many of the Chiltern commons and supports a number of other species. Traditionally, bracken would be kept in check by being cut and

²⁶ <http://www.pondheadconservation.org.uk/>

²⁷ See the Carbon Compost Company <http://www.biocharretort.com/index.html>

gathered for bedding for livestock and by grazing cattle trampling it. Nowadays, the bracken becomes more established, and a deep layer of litter develops below it, damaging wildlife habitat and underground archaeology by smothering other growth and altering the structure of the underlying soil. Bracken can grow three metres high and has a complex rhizomous root system which makes it difficult to eradicate. In addition, it can be poisonous to sheep, horses and cattle if consumed in significant amounts and its spores are carcinogenic. Sheep and deer ticks can colonise the litter layer of bracken and infest sheep, and Lyme's Disease is present in places (e.g. the New Forest), which can be passed to humans.

Careful thought needs to be given to how bracken should be managed on a common and as part of a long term programme of vegetation management. Natural England provides useful guidance on this.²⁸ If appropriate, bracken might be baled and sold. A handful of commoners in the New Forest still cut bracken in late summer, when the fronds are beginning to turn, and bale it for bedding for ponies, cattle and hounds. When dry, bracken is light and easy to handle and animals tend not to eat it, as they might with straw bedding. Bracken breaks down more quickly than straw, meaning that it makes good, quick manure.

EXAMPLE: Bracken from the New Forest Commons is cut by the Forestry Commission in the autumn, using a tractor-mounted forage harvester. The bracken is blown into a hopper, enabling it to be removed from the site and to a central storage area, where it is piled in a heap. The heap has to reach a minimum temperature of 60°C to enable composting, which can be aided by regular turning of the heap two or three times over a year and by adding water. The temperature is maintained throughout composting to eradicate any traces of carcinogens that may be present in the bracken, especially in the spores. The current size

of this annual programme is approximately 65 ha across the Forest, commencing from late August to the end of October. On average, the Forestry Commission produces 2000m³ of forage harvested material per year, at a cost of around £200/ha. The resultant 'peat free' compost is sold to various nurseries and garden centres, including Kew Gardens. The composting operation does not generate a profit, but sales of compost effectively reduce the annual bracken management cost from £18,000 to £3,000 in the Forest overall. A site can be forage harvested for about four to five seasons after which the bracken becomes too sparse.²⁹

Bracken composting,
New Forest
(Photo: Victoria Edwards)



²⁸ Natural England (2008). Bracken Management and Control, Technical Information Note 048, Natural England: Peterborough. <http://publications.naturalengland.org.uk/publication/35013>

²⁹ More information can be found at [http://www.forestry.gov.uk/pdf/Brackencontrol.pdf/\\$FILE/Brackencontrol.pdf](http://www.forestry.gov.uk/pdf/Brackencontrol.pdf/$FILE/Brackencontrol.pdf)

Food Products

Fruit and vegetable growing and a healthy diet are important. Organic methods of production are better for wildlife by stopping the use of biocides and reducing uncertainty in the general food chain about long term human health and environmental consequences. If food can be produced from the commons, then there is the potential to create a local market, either from direct sales off the common (an honesty box scheme) or through farmers' markets, food festivals³⁰ and fairs, and through local shops. Flowers and fruits readily found on a common, such as elderflower, elderberries, sloes, damsons, apples and blackberries, can be made into a range of products from preserves (jellies, jams, chutneys, syrups, cordials) to fresh pies and other deserts. Nuts from hazel and sweet chestnut are also marketable.

Native Americans, Pacific Islanders and Asians have traditionally eaten soft fern heads ('fiddleheads') in the spring, including those from the bracken family. The fronds are harvested when still tightly coiled, about six to eight inches in length.³¹ Apparently the flavour is delicate, similar to the taste of kale or chard, and the texture like asparagus. While the fiddleheads are high in vitamins A and C, a good source of niacin and manganese, high in fibre and even contain some protein and iron, they are also thought to be carcinogenic and current thinking is that they need specific preparation methods, should probably be eaten in moderation, and never raw. It seems unlikely, therefore, that anyone in Britain will succeed in making a commercial harvesting business out of bracken as a food crop.

It should also be possible to plant up a common into a community orchard for even more abundant harvests. Community orchards can help bring a community together in planting the trees, caring from them and later harvesting the produce. According to Common Ground,³² an organisation dedicated to promoting the planting of new orchards and the re-establishment of abandoned orchards throughout England, there are already more than 300 community orchards in the UK run by and for local people. Chiltern Ridge Apple Press will press, pasteurise and bottle and label apple juice for £1.65 per 50ml bottle.³³ Since branded apple juice retails at around £3 per bottle, there is a small profit to be made for the community. Alternatively, by using a grant to purchase a press, the community could press juice itself.³⁴

EXAMPLE: Chorleywood Community Orchard was launched in 2008 and in February 2009 volunteers planted the first 24 apple trees in the surroundings of Chorleywood House Estate, a Local Nature Reserve in south-west Hertfordshire. The orchard has 140 fruit trees, a mixture of apples, plums and cherries, all carefully chosen either because they are old Hertfordshire varieties or are known to thrive locally. As well as activities for the local community throughout the year, an annual Apple Day is held each October, where visitors can enjoy a BBQ and a wide range of apple-related attractions, such as apple tasting, a treasure hunt, a baking competition and bee keeping demonstrations. A traditional apple press and crusher makes bottled apple juice and chutneys, jams and jellies are sold. More recently, the Community Orchard has started making cider.³⁵

³⁰ Thame Food Festival takes place in late September every year, with Patron TV chef and writer, Lotte Duncan, and food Ambassador Raymond Blanc. <http://www.thamefoodfestival.co.uk/>

³¹ Bracken is known to contain carcinogens, specifically a substance called ptaquilosid, but evidently it is not thought to be harmful when fronds are eaten in appropriate quantities

³² <http://commonground.org.uk/>

³³ <http://www.chilternridge.com/crajown1.htm>

³⁴ Communities and Local Government has produced a useful guide to Community Orchards at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/11466/1973262.pdf

³⁵ <http://www.chorleywood-orchard.org.uk/index.html>

2.2 Selling the Services the Common Provides

As well as providing more obvious use benefits, such as grazing and recreation, commons have the potential to provide specific services for which payments might be made.

Recreational Services

The most obvious is the service that a common provides is supplying open space for recreation. The public are entitled to walk on registered common land without confinement to paths, usually under the Countryside and Rights of Way Act (CRoW) Act 2000. Different to public rights of way, these 'rights to roam' allow the public to use registered common land for activities such as walking, sightseeing, bird watching, picnicking, climbing and running.³⁶ The CRoW Act does not convey the right to participate in driving a vehicle, cycling, fishing, horse riding, camping without the owner's permission, light a fire or have a barbecue, or hold a festival or other event without permission.³⁷ This might present opportunities for charging for these services.



Activities on Brill Common
(Photo: Roger Stone)

As well as organising events on the common, owners and managers may wish to charge organised groups who use the common, especially where a private company is the supplier. For example, it is expected that companies providing Nordic Walking classes and similar fitness classes obtain permits when using Forestry Commission land, and pay for such permits. Charges are small, but a permit system has the added advantage of ensuring that the recreation supplier is fully insured and has undertaken appropriate risk assessments before taking clients on to the land. Charges are normally

waived or severely reduced for charities undertaking fundraising events, and activities under the Duke of Edinburgh Award.

EXAMPLE: in the New Forest the Forestry Commission charge around £50 to £60 per activity (e.g. running, Nordic walking), which allows the permit holder to go out as many times as they wish in a year. Nationally, dog sledding (with wheels) is charged at around £250 per event. National mountain bike events are charged £2 per bike and £100 overall. Triathlon events in the New Forest are charged £120, the drag hunt pays £300-£400 a year, and orienteering organisers are charged £50 per event.

Corporate team building days are excellent ways of enlisting the help of volunteers in activities such as scrub clearance and coppicing while deriving some income from the event. Commons Friends Groups could team up with local consultants and/or hotels in providing such events.

³⁶ <https://www.gov.uk/common-land-village-greens>

³⁷ It is worth noting that some commons have access rights which predate and take precedence over the CRoW Act and on many of these there is a right to ride as well as walk.

EXAMPLE: Chilterns Rangers CIC is a community interest company formed in June 2013. Based in High Wycombe, it operates in and around the Chilterns AONB. Its purpose is to improve the local environment and to enrich the lives of the local community through practical conservation work and volunteering opportunities. Chilterns Rangers work in partnership at a range of sites for other landowners in the public, private and charitable sectors. Their aim is to engage, inspire and facilitate local communities, including local businesses, to get involved in this work. The Booker Common Woods Preservation Society (BCWPS) invited Chilterns Rangers to help them develop a 2 km walk with the help of the Society's volunteers. Shrubs, bushes and trees have been cut back to widen the path and allow light in. Cut material has been chipped and the chips used to improve the surface of the paths. Information boards and signposts are to be erected to mark the route.

Events

Holding an event on the common, such as a festival, farmer's market, or simply a community picnic, can provide an important social gathering for a community. The goodwill built up from such events can also pay back benefits to the common in the form of new volunteers, a greater sense of stewardship, and a renewed enthusiasm for community action. Events can also act as a market and showcase for local produce.

EXAMPLE: Chalfont St. Peter holds an Annual Feast Day that draws over 7,000 people to Goldhill Common. The 33 acre common has been registered since 1899.

Filming

Use of the common for filming might involve anything from period drama to adverts and corporate videos. Filming is such a specialist business, owners would be wise to work through location scouting companies in the first instance.³⁸ Companies will negotiate fees for the owner and take a commission (around 20%) of the final facility fee. The scouts will also take on management of the production, ensuring that production companies or photographers are fully insured for damage and public liability, drawing up the contract, and ensuring that the common is left in its original (or better) state.

Ecosystem Services

As well as providing a service by supplying important habitat for people to enjoy activities, commons provide essential 'ecosystem services', including supporting services, such as nutrient and water cycling, and regulating services, such as pollination. A market is beginning to develop for these non-market services, whereby developers are required to contribute to the ongoing costs of maintaining ecosystem services on one piece of land in return for the permission to develop on another site.

There are three instances when land might be sought by developers:

- to provide Suitable Alternative Natural Green Space (SANGS), as a condition of permission for development that is close to a European or UK conservation site (Special Protection Area (SPA), Special Area of Conservation (SAC), or Site of Special Scientific Interest (SSSI));
- to offset biodiversity loss on a development site; and/or
- to translocate species from a development site.

SANGS

SANGS came about as an attempt not to breach the EU Habitats Directive and its requirements to address the cumulative impacts of development on protected sites. SANGS

³⁸ Such as <http://www.saltfilm.com/>

are intended to provide alternative green space to divert visitors away from sites of European importance and prevent an increase in visitor pressure. Natural England provides guidance on SANGS for SPAs and SACs to the relevant planning authorities.³⁹ The specific type and extent of SANGS to be delivered depends on the SPA/SAC and can be delivered through either upgrading an existing area of informal open space or through the provision of a new area. Natural England has produced a range of criteria for assessing whether a site will qualify as a SANGS. Although SANGS can be created from existing open space that is already accessible, such as a common, it should be shown that it could be changed in character to make it more attractive to the specific group of visitors who might otherwise visit the SPA/SAC being protected. For example, a common might try to discourage potential visitors from an SPA/SAC by providing more accessible and attractive paths to dog walkers, or supplying a children's play area. A proposed SANGS should not already have a high nature conservation value, or it will be discounted in terms of its overall mitigation value by the appropriate planning authority.

Since the SANGS policy was approved in 2007, almost 40 SANGS have been created. However, with more than 80 SPAs in England, and demand for new homes, there are plenty of local authorities struggling to find sites. Funding for SANGS and Green infrastructure (GI) is generally collected by the local planning authority (LPA) from the developers under Section 106 agreements,⁴⁰ Communities Infrastructure Levy, roof tax, or Landfill Communities Tax. For larger developments, the developer might fund the SANGS/GI.⁴¹

Biodiversity Offsetting and Translocation

The term 'biodiversity offsetting' is used to describe how the residual impacts of development on biodiversity can be offset through investments in habitat restoration and creation elsewhere. Offsetting is currently required and practiced under the EU Habitats Directive in order to maintain the integrity of the Natura 2000 network, but it is thought that there is significant potential to extend its coverage to tackle biodiversity losses outside protected areas. Although reports suggest that the Government might be less enthusiastic about implementing biodiversity offsetting than was first suggested, landowners would be advised to keep up to date on the development of a market which could yield significant financial benefits.

Many individual wildlife species receive statutory protection under a range of legislative provisions, such as the *Wildlife and Countryside Act 1981*,⁴² *Habitats Regulations 1994*,⁴³ *Protection of Badgers Act 1992*. Other species have been identified as requiring conservation action as species of principal importance for the conservation of biodiversity in England. Local planning authorities (LPAs) are expected to take measures to protect the habitats of these species from further decline through policies in local development documents and ensure, where appropriate, that these species are protected from any adverse effects of development by using planning conditions or obligations. If protected species are likely to be deliberately disturbed by development operations, the activity can be licensed by Natural England and the LPA can impose a condition to ensure that the

³⁹ For an example in the Thames Basin see <http://www.bracknell-forest.gov.uk/sangs-guidelines-and-checklist-12-06-08.pdf>

⁴⁰ Section 106 of The Town and Country Planning Act 1990 enables local authorities to negotiate contributions towards a range of infrastructure and services, such as community facilities, public open space, transport improvements and/or affordable housing. Such agreements between developers and local planning authorities, which are negotiated as part of a condition of planning consent, are known as Section 106 agreements, or planning obligations.

⁴¹ For more about the importance of SANGS, see the paper in this series Local Spaces : Open Doors.

⁴² The offence of intentionally disturbing protected species occupying places used for shelter or protection was first introduced in Section 9 of the Wildlife and Countryside Act 1981 (WCA) and applied to species listed on Schedule 5 to the Act. Section 9 of the WCA was later amended by the Countryside and Rights of Way Act 2000 to include both intentional and reckless disturbance.

⁴³ A similar but slightly wider offence was introduced by the Habitats Regulations 1994, which prohibited deliberate disturbance of a European Protected Species wherever it occurred.

affected species are caught from the area to be disturbed and taken to a suitably managed part of the site or to another location.

Common land could be used to compensate for any biodiversity loss that has not been mitigated on development land, and/or to act as receptor land for translocation of species from a development site. Landowners can sell 'conservation credits' to developers who need to offset their environmental impacts by creating or restoring wildlife habitats on an 'offset' or 'receptor' site. A standardised system is used to measure the environmental value at both the development site (in units) and offset/receptor site (in credits) to ensure that overall environmental gain is achieved.

Offset and translocation sites could be created on common land of any type and size where good land management can create environmental uplift. Since the main focus of biodiversity offsetting is long-term replacement of land lost to development, any common accepted as an offset site would need to be managed and protected in the long-term. A management plan would be used to establish what would be delivered, by whom, over what period and at what cost, detailing the steps to be taken to improve the common. The cost of management would be determined by the landowner and paid by the developer in agreed instalments over the duration of the management plan. There are no legal restrictions or designations associated with biodiversity offsetting and it does not create any extra obligations for public access, nor affect the ownership or common rights in any way.

Generally, translocation should only be regarded as a last resort option, as it is better to retain species on site. Evidence would need to be provided that the common was a suitable receptor site, including ensuring that the land had sufficient carrying capacity to support the animals that would be moved. Presence of the new population would need to be compatible with existing management objectives for the common and the requirements of existing species. The common's management plan would need to be revised to accommodate the new species and/or populations. Legal agreements are then negotiated and prepared and a detailed agreement of site area and required works is drawn up, including costs and fees associated with the translocation. Once agreements have been signed, the site is prepared as agreed and the species are delivered by the developer to the site. Ongoing site management, to maximise the species' chances of success, is normally undertaken for up to ten years and paid for by the developer.

Funds for biodiversity offsetting and translocations are generally provided by the developer and can be substantial. House building and transport infrastructure construction, especially projects such as Crossrail and HS2, are likely to increase the need for translocation sites in the south east, where the most demand for translocation is likely to be for reptiles. During the development of the M3 through Twyford Down, grassland was relocated and development of HS1 resulted in the relocation of coppice stools, albeit it with limited success. It is difficult to obtain data on the levels of fees paid by developers for translocation, although some very high figures are suggested in scenarios where developers are 'held hostage' by receptor landowners who have the ability to unlock the restriction placed on their permitted development. However, landowners and managers need to be very sure that the payment received reflects the true costs of maintaining suitable habitat for the translocated species in the long term: often costs are underestimated, leaving the landowner inadequately compensated for the service provided.

EXAMPLE: Little Linford Wood near Milton Keynes is a 105 acre ancient semi-natural woodland. In June 1998, 41 Dormice were brought to the wood, some from captive bred stock and some translocated from woodlands felled to build the Channel Tunnel rail link in Kent. The Dormice were released by a soft release method that involved feeding the

Dormice in release cages for a couple of weeks before a hole was opened in the cage allowing them to escape. The re-introduction has been very successful and the Dormice have since thrived, spreading to all the suitable areas of the wood. In September 2004, 117 Dormice were recorded within the wood on one day. Recorded numbers have been much lower recently, but the Dormice have been found to be breeding up to a mile away, both north and south along the M1 motorway verge, and in hedgerows around the wood.

There are some risks to a common in providing ecosystem services, particularly those related to development mitigation, including: Legal (e.g. breach of statutory legislation); Financial (e.g. underestimating ongoing management costs); Environmental (harming nature conservation value, especially through inappropriate translocations); Reputational (furthering development and destruction of habitat elsewhere). Managers should approach charging for the provision of ecosystem services with some caution, and only proceed where they are certain that there are net benefits for the environment.

3 Legal & Other Restrictions

Before embarking on any management regime, it is a good idea to step back and consider who needs to know about it, whether their consent is required, and how best to communicate with them. In every case, the agreement of the owner will be required, but there may be legal requirements for further consent from, for example, the planning inspectorate, Natural England, or local planning authority. In any event, it is good practice to consider all stakeholders and to consult widely. This section addresses legal restrictions and section 4 considers consultation and other practical management issues.

3.1 Section 38 Consents

The consent process under S.38 of the Commons Act 2006 ensures that works on a common will only take place when they maintain or improve the condition of the common or, exceptionally, where they confer some wider public benefit and are either temporary in duration, or have no lasting impact. This includes structures (e.g. fences, grids, banks and ditches) and surface alterations. The need for consent applies even to short lengths of fences and temporary fences (apart from those exempted, below), banks or ditches put on the edge of the common to exclude vehicles, or winter shelters put up for grazing animals.

Consent is not needed for minor and exempted works that do not prevent or impede access onto or over the common, including undertaking or erecting:-

- **Habitat management practices** such as mowing, burning or cutting vegetation, planting trees and shrubs (but not for forestry purposes), dredging and clearing ponds or other water bodies, creating scrapes for nesting birds and protecting or renovating turf;
- **Management** for people such as placing seats, small signs and noticeboards, new gates and stiles in existing fences, creating or widening unsurfaced or loosely surfaced paths (e.g. gravel or stones), setting out areas for sports or games (without any permanent construction), and repairing car parks, roads or footpaths with a similar surfacing to that already used;
- **Temporary fencing** for no more than 28 days and 200 m sq.;
- **Temporary shelter** for up to 14 days for sick or injured animals requiring treatment or recuperation, and installing feeding and watering troughs.

Similarly, certain works are exempted from the need to obtain consent, even though they can impede or prevent access. For example, where a fence is needed for grazing in order to exercise a right of common, or for nature conservation purposes, and it is temporary, then

provided it fences less than 10 ha or 10% of any registered unit (whichever is the less) and only for up to six months, then it is considered exempt.⁴⁴ It is also possible to enclose up to 1% of the registered unit for up to one year to carry out work which benefits the common (e.g. to experiment on the effects of different management) or to protect vegetation (e.g. a rare flowering plant). Where works are exempt from the need for consent, a form should be completed declaring why consent has not been sought, and submitted to the Planning Inspectorate and erected on site, so that everyone can understand why consent has not been sought.

When consent is required, the application will require a description of the proposed works, information on why the works are needed, whether alternatives have been considered, and what consultations have been carried out. If the proposal involves fencing, a series of additional questions must be answered, for example about the types and height of fence, number and location of access points, and gates.

3.2 Other Consents

Highway Authority

Consent of the Highway Authority (HA) (usually the County Council) is normally required to put any gate or structure (such as stile or cattle grid) across a highway for the purpose of containing land for farmed livestock, forestry or horses. A highway includes a road, bridleway and footpath. An application for cattle grids and associated by-passes needs to be made to the HA under Section 84(2) and Schedule 10 of the Highways Act 1980. Cattle grids on main highways (A and some B roads) are usually not acceptable. The HA will take the advice of the police and may ask for a traffic census and a public consultation to be undertaken. The cost of providing and installing the cattle grid will usually be borne by the applicant and the HA may also ask for a capitalised sum towards maintenance, as it will be the HA's responsibility once installed.⁴⁵

Planning consents

Any new buildings constructed on commons will need planning consent, as will some signs, fences and other structures. Normally local planning authorities will not require an application for planning consent for fences and gates, provided these are set back from the highway (two or more metres) and are a normal height for stock fences (1.1-1.3 metres). However, different authorities have different interpretations of the need for consents, and so it is always worth checking with the planning authority.

Designated conservation sites

For any common that has been designated a Site of Special Scientific Interest, Natural England must be consulted about proposed works. Similarly, if it is in an Area of Outstanding Natural Beauty, then the AONB partnership ought to be consulted. If there are any Scheduled Monuments then formal consent must be obtained from Historic England (formerly English Heritage) for any works which may affect the monuments. Many commons will be recognised as Local Wildlife Sites (LWSs): wildlife-rich sites selected for their local nature conservation value. LWSs can contain important, distinctive and threatened habitats and species and not only provide wildlife refuges in their own right, but can act as stepping stones and corridors to link and protect nationally and

⁴⁴ This exemption can be for a single or for several enclosures provided the total area is within the 10 ha or 10% limit and provided the same land has not been similarly enclosed in the previous six months.

⁴⁵ If there are objections, the proposal will be forwarded to the Secretary of State (SOS), who may determine the matter, or hold an informal hearing or more formal public inquiry. If approved by the SOS, no further consents are necessary under Section 38.

internationally designated sites. However, their designation is non-statutory and their only protection comes via the planning system. The National Planning Policy Framework for England (NPPF)⁴⁶ retains protection for Local Wildlife Sites and provides the direction for local authorities to identify, map and protect them through local plans. The new policy also requires protection of Local Wildlife Sites to recognise their importance and the contribution that they make to wider ecological networks, as stated in the Government's own Natural Environment White Paper.⁴⁷

Cross compliance and common land

Any landowner who claims agricultural payments under the Single Payment Scheme must comply with cross compliance rules across all of their agricultural land, not just the land that they claim payments for. The responsibility for cross compliance with common land is shared with the other stakeholders, such as the commoners.

4 Management Considerations

Determining the right path for future management can take a long time and demands patience and good communication. People involved in managing commons talk about 'having to play the long game' and that 'it is never possible to please everyone'. Before addressing how a landowner or manager can maximise the benefits and minimise the costs of producing new products and services from their commons, it might be useful to identify some of the issues that they will face.

4.1 Social and Environmental Costs and Benefits of Products and Services

The management of commons can throw up some difficult issues related to different management practices. This section reflects on some of the more important social and environmental issues.

Grazing management issues

Traditionally, lowland grassland commons were maintained as open landscapes by graziers. When grazing on a common is reduced or ceases, scrub will begin to encroach, resulting in a decline in the quality and biodiversity of ground vegetation. Typically the range of flowering plants, invertebrates and birds associated with heath and grassland will diminish.⁴⁸ Scrub will also affect the visual character of the common and reduce the level and extent of recreational use. Eventually the common will revert to secondary woodland, as has occurred on many Chiltern commons.

Reintroduction of stock to a common is an obvious means of managing the land for amenity and environmental benefits. Nevertheless, there are several barriers to reintroducing grazing. First, since many lowland commons are traversed by roads, traffic and the related dangers to stock and to motorists on unfenced roads can be a major deterrent to reintroducing grazing. Second, depending on how long the common has been ungrazed, the changes in vegetation may mean that stock cannot be introduced without works being carried out first, such as tree felling, scrub clearance and burning. Third, although it is an accepted customary duty for adjacent owners to fence against a common, boundary fencing may be in a very poor state of repair, or no longer present. Fourth, there may not be a natural water supply on the common and the costs of piping water to a trough may prove

⁴⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

⁴⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228842/8082.pdf

⁴⁸ Natural England (2010). Commons Toolkit, Guidance Note 6: under grazing, Natural England: Peterborough, p.57 <http://publications.naturalengland.org.uk/publication/36015>

prohibitive. Fifth, many lowland commons are heavily used for recreation, making grazing problematic, particularly if dog walking is prevalent and might disturb the grazing animals or create public safety issues. Finally, the grazing stock need to be cared for and the labour input needed is often relatively high for the number of stock to be supervised on the common.

EXAMPLE: in Ashdown Forest Natural England are funding a three year project (within a Higher Level Stewardship scheme) which aims to trial the close-shepherding model found on the continent in countries such as Holland, where shepherded flocks on heathlands are a common sight. This type of management relies on using a full-time shepherd and dogs to manage a sheep flock which will graze the heathland thus eliminating the need for stock-fencing. The flock will be carefully managed in order that it does not curtail use of the Forest for leisure activities. It is hoped that this will also mark a return to traditional management practices within the Forest.

EXAMPLE: 'virtual fencing' has been used at Burnham Beeches to stop grazing livestock from straying since 2012. The 'invisible fence' system used in the trials combines buried cables with collars on the animals, so there is no need for gates. As a result, access is improved and, as the cable is buried, there is nothing to spoil the view. The system works by transmitting a radio signal along the buried cable, which is picked up by collars worn by the livestock. If an animal approaches the cable, the collar emits an audible warning; if they get too close they receive a small electric shock. The shock is similar to that given by a traditional electric fence and after one or two shocks they learn to keep away. Tests were first conducted within fenced paddocks before being introduced to 'virtual paddocks' which cross public roads, allowing the livestock to graze both sides. The trials have been a success with the fence working well, the livestock remaining within the grazed areas at all times and no incidents with road users - in fact, tests showed that cars visibly slowed as they approached and drove through the enclosures.⁴⁹ Virtual fencing has now been introduced under a trial at Chorleywood, with Longhorn bulling heifers, and is proving equally successful.⁵⁰

4.2 Management Plans

Putting together a management plan for a common is a sensible way to approach new management activities and is a great tool for securing funding applications. The plan will help managers identify what the important features of the common are, what needs to be done to maintain or improve it, how they can sell or obtain funding for the different products and services on the common. Thus, the management plan can address not only the land management activities needed (such as scrub clearance, coppicing) but also a whole host of activities that will need to be achieved to sell related products and services.

The first port of call for any manager should be Natural England's set of 17 fact sheets, *Stimulating Action on Local Commons*, written for local groups considering action for the better management of their common land. It is especially aimed at commons where traditional agricultural management is limited or has ceased.⁵¹ Also useful is the *Commons Toolkit*, produced by the Foundation for Common Land, which combines 20 fact sheets and guidance notes, providing practical guidance for those involved with commons management, although this is more geared to agricultural management.⁵²

⁴⁹ <http://www.cityoflondon.gov.uk/things-to-do/green-spaces/burnham-beeches-and-stoke-common/about-us/Pages/Grazing-lowdown.aspx>

⁵⁰ For details, see <http://www.eblex.org.uk/wp/wp-content/uploads/2014/09/GC-case-study-September-170914.pdf>

⁵¹ <http://publications.naturalengland.org.uk/publication/115021>

⁵² <http://publications.naturalengland.org.uk/publication/36015>

Both land management practices and the related income-generating solutions for commons have to meet the demands of all the common's stakeholders. Stakeholders will include the landowner, commoners, County, District and Parish Councils, the Local Access Forum, local wildlife, amenity, history, sporting and archaeological societies, residents living around the common, visitors from nearby towns and the users of the common. Users should ideally be consulted directly, and certainly through their representative organisations. All potential income sources need to be evaluated within the context of stakeholders' interests, a changing socio-economic environment and the realities of environmental change. Publications *A Common Purpose - A guide to community engagement for those contemplating management on common land*,⁵³ and *Finding Common Ground*⁵⁴ (from the Open Spaces Society) provide excellent advice on how to go about consultation properly when seeking Section 38 consent and management undertakings generally. Hampshire County Council's website has a useful DVD on creating a 'Common Vision'.⁵⁵

It is important for commons managers to consider different ways of achieving management objectives for the common and try to come up with the best possible solution for the common, not necessarily the easiest solution. This is certainly true when applying for Section 38 consent for works on the common, as the Secretary of State will consider whether a more acceptable outcome could be achieved by adopting a different approach. For example, if an application proposes the erection of temporary fencing to prevent livestock from wandering on to a road running through a common, the Secretary of State might want to know whether the applicant has explored the option of a temporary speed limit, or warning signs instead.

If works require Section 38 consent, the approval process can take from six months to a year or more, so forward planning of works is essential. The consultation is detailed in the 2006 Act and demands a very prescriptive stakeholder consultation process.

4.3 Management Groups and Collective Action

Before any serious management planning can take place, the stakeholders of a common will need to form a management entity. Management can be undertaken by:

- the landowner;
- informally by landowners and commoners, together with other interested parties (e.g. local residents), through a 'Friends Group';
- formally, by setting up a statutory Commons Council, where the stakeholders sit on the council, vote on decisions, and the decisions of the council are legally binding.

Friends Groups are voluntary groups that encourage co-operation over the management of a common. Friends groups have been started in many local communities to care for their local common and routinely take on the hands-on management tasks, such as scrub clearance, sometimes under the guidance of a management committee or a specialist body such as a Wildlife Trust. Many Friends Groups have a website, and produce a regular newsletter, advertising events and featuring articles of local interest. However, a voluntary group of this nature is not a legal entity and so cannot take action against anyone who compromises the management agreement or the rights of the commoners. Decisions taken by the groups often have to be unanimous, and their rules, which affect only their members, cannot be enforced through the courts.⁵⁶

⁵³ <http://www.foundationforcommonland.org.uk/news/207-new-revised-edition-of-a-common-purpose-guide-is-out>

⁵⁴ <http://www.oss.org.uk/wp-content/uploads/2009/02/Finding-common-ground-2A.pdf>

⁵⁵ <http://www3.hants.gov.uk/hampshire-countryside/countryside/commons-registration.htm>

⁵⁶ See also the paper in this series, Local Spaces : Open Doors.

The Commons Act 2006 established **Commons Councils** as statutory organisations, set up to help the agricultural management of common land. These are less relevant to the Chilterns and further information on Commons Councils, including a technical guide from DEFRA on setting up a council, can be found at the government website.⁵⁷

Some commons, such as Nettlebed and District Commons, benefit from more formal legal entities, established by statute, and have been able to make modern management work by using these historic bodies. Irrespective of the legal status of the managing body of a common, its ability to generate support for the common and organise volunteers into tackling practical management tasks is likely to be its most important feature. Encouraging volunteer groups engenders sense of ownership and pride. There are several websites that provide more information and ideas on how to do this, such as Volunteering England (part of the National Council for Volunteer Organisations),⁵⁸ The Conservation Volunteers⁵⁹ and Commons Fact sheet 4: Getting Started, in the Natural England *Stimulating Action on Local Commons series*.⁶⁰ Fit for Funding also offers useful general advice.⁶¹

EXAMPLE: Nettlebed and District Commons has a board of nine Conservators, set up by its own act of parliament, The Nettlebed and District Commons (Preservation) Act 1906. The Conservators work voluntarily as a team to manage the common, working closely with the owners of eight separate commons, covering some 560 acres. Their work includes preventing boundary encroachments and organising and taking part in routine maintenance, such clearance of pathways, tree surgery, grass cutting, and litter collection. Some of the more practical work is carried out by Sonning Common Green Gym volunteers, or Friends of Nettlebed group. The Conservators manage the commons' finances, which are part raised through subscriptions to the Friends of the Common, and from South Oxfordshire District Council and the local Parish Councils. The Friends of Nettlebed common has a quarterly newsletter, available at their website.⁶²

EXAMPLE: Marlow Common comprises 27 acres of oak and birch woodland to the west of Marlow. Its management has recently been taken over by the Chiltern Society, which has formed a new Friends of Marlow Common group.

5 Funding - for where the market falls short

Many commons will be fortunate enough to be able to use volunteers to keep their management costs down. Others may find useful streams of revenue, as detailed in this paper. However, most commons will still need to find ways of funding land management practices, either partially or wholly by grant and fundraising activities. This will be particularly true if a professional contractor or adviser is needed for more complicated or technical work, or when work has to be done quickly.

Managers need to plan fundraising, like any other management task on the common. It is best to consider what the requirements are for a common and the sort of timescale over which the funds will be needed. Talking to other owners, managers, or friends groups to see how they approached funding might be useful before deciding whether to apply to a funding body, or whether to undertake fundraising activities. Although applying for funding may seem like less work, never underestimate what it takes to get an application right:

⁵⁷ <https://www.gov.uk/common-land-management-protection-and-registering-to-use>

⁵⁸ <http://www.volunteering.org.uk/component/gpb/im-setting-up-a-volunteer-programme-what-do-i-need-to-consider>

⁵⁹ <http://www.tcv.org.uk/community/set-new-group>

⁶⁰ <http://publications.naturalengland.org.uk/publication/115021>

⁶¹ <http://www.fit4funding.org.uk/support-pages/starting-up/setting-up-your-group/>

⁶² <http://www.nettlebed-commons.org/index.html>

valuable time that can be productively used in fundraising activities or in approaching sponsors. Most funding bodies have a dedicated grants officer who can provide really good guidance, so it is always worth talking to them before putting in an application, to check eligibility or for help with an application.

Checking local funding sources, such as parish and district councils, is always worthwhile: many local authorities, especially within AONBs and National Parks, have sustainable development funds for small environmental works.⁶³ District and county councillors can often identify an officer of the Council who can advise on any departmental funding available, or on appropriate local Trusts.

Although most funding bodies have a limited set of priorities, it is relatively easy to angle a project towards their objectives (such as increasing community involvement, or providing access for normally excluded groups) and so make the specific grant work for a particular common's needs. However, it is crucial that managers remain clear as to the purpose of their search for funds and not lose focus of the original intention for funding. By not sticking to the management plan, managers searching for funds can end up serving the grant, rather than it serving the common's purpose. Details of different funding sources are provided below.

5.1 Local sponsorship and Fundraising

Many organisations, public and private, now take their corporate social responsibility (CSR) seriously and are looking for opportunities to involve their staff in local fund raising and volunteering. Staff volunteering days have the advantage of winning valuable public relations publicity for the organisation, while providing a useful vehicle for staff team building. Work might involve digging out ponds, clearing scrub, building play areas, designing or making signs. Local Nature Partnerships (LNPs) are “strategic partnerships of a broad range of local organisations, businesses and people with the credibility to work with, and influence, other local strategic decision makers”.⁶⁴ They should prove useful networks to facilitate more involvement of businesses with commons.⁶⁵ Relevant local businesses may be willing to pay for small works, contribute labour, equipment or materials, or sponsor an event. Friends groups themselves are often rich sources of local talent, made up of skilled people who are often willing to donate their time to designing leaflets and websites, researching the common, carrying out maintenance work, giving talks and leading walks.

As well as applying for grants and loans, commons can set about raising their own funds for management works. Some Friends Groups levy a small membership charge and any surplus beyond administration is put towards projects on the common. Fundraising activities can be a good source of small, but regular income. Fact sheet 15 in Natural England's *Stimulating Action on Local Commons* series is about fundraising and is a good start to generate some ideas.⁶⁶ Websites might also help, such as the Institute of Fundraising's *Easy Fundraising* website⁶⁷ and some private sites, such as Neill Wilkins' brilliant *Better Fundraising Ideas* website.⁶⁸ Brill Common in Buckinghamshire has come up with a way of funding a grazing herd through community ownership.

⁶³ Chilterns Conservation Board's Small Grants Scheme has now closed, but the Board hopes to continue to make small contributions to selected projects that meet the Board's priorities. www.chilternsaonb.org/conservation-board/funding-for-projects

⁶⁴ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/192580/local-nature-partnerships-overview120402.pdf

⁶⁵ Relevant LNPs for the Chilterns are Oxfordshire LNP, coordinated by Wild Oxfordshire <http://www.wildoxfordshire.org.uk/>; and Buckinghamshire and Milton Keynes Natural Environment Partnership <http://www.bucksmknep.co.uk/>

⁶⁶ <http://publications.naturalengland.org.uk/publication/115021>

⁶⁷ <http://www.easyfundraising.org.uk/fundraising-ideas/>

⁶⁸ <http://www.better-fundraising-ideas.com/>



Volunteer movers -
Brill Common
(Photo: Roger Stone)

EXAMPLE: Brill Common, an area of about 30 hectares, was grazed by sheep until about 20 years ago. Once grazing ceased, the common became neglected and overgrown with grass, self-seeded trees, brambles and scrub. In 2007 a small herd of Dexter cattle was introduced to help maintain the common and return it to its original state. In 2011, when the grazier decided she could not continue indefinitely, the Brill Village Community Herd Society was initiated. An Industrial and Provident Society was formed, which is a type of non-profitmaking organisation. Members join for an annual fee of £5, which includes a £1 non-returnable share. Applications to join the Society exceeded expectations and the capital needed to purchase the herd was raised by appeal from membership

donations. There are currently around 400 members. The herd is managed mostly by villagers. The cattle are allowed to graze in areas surrounded by electric fencing. There are several gates in the fence through which the public can walk so access to the common is not restricted. The herd is moved at regular intervals to ensure that the grass is grazed to a conservation plan: slotted fencing has made this task much easier lately. Goats have also been introduced to eat the brambles. Some 35 volunteer Lookers take it in turns to ensure that the cows are checked on a daily basis, that the water troughs are full, and the electric fence is operational. Around 50 volunteer Movers are available when it is time to take the herd to a new area, and dismantle and move the fencing and replace posts. In addition, the Society employs a Warden, an experienced herds person, to check the cattle twice a week. Hay gathered from the common is fed to the cattle in the winter, adding to the project's environmental sustainability. The operational costs are met by subscriptions, donations, an Environmental Stewardship grant from Natural England, and a contribution from the Parish Council. In 2014, total costs for the Society were in the region of £5,000 (each cow costs about £500), which included necessary equipment purchases and replacements. The Society has agreed to work to a five year plan, which was prepared by an ecologist from the Farming and Wildlife Advisory Group (FWAG). The Annual General Meeting is a welcome social event each year, with supper and speaker, and a bi-annual newsletter helps keep the membership informed. The project has been very successful in involving villagers in management of the common, whatever their age or availability.

5.2 Charitable Sources

Many charitable trusts and foundations exist, giving grants for all kinds of projects. Some of these have a national remit, others are much more locally focussed. Currently less than 3% of grants made by charitable trusts in the UK are directed towards environmental and conservation work. Nevertheless, there are numerous sources for small, one-off grants to assist in practical conservation work. The internet has many websites for the various charitable bodies and trusts providing grants. Key charities and foundations for small grants for commons work can be found on the Environmental Funders Network.⁶⁹ Grants Online is also a useful starting point.⁷⁰

⁶⁹ <http://www.greenfunders.org/>

⁷⁰ <http://www.grantsonline.org.uk/>

EXAMPLE: Trust for Oxfordshire's Environment (toe²) was set up through the Oxfordshire Rural Community Council (ORCC) to initiate and support community environmental projects in Oxfordshire, building on work developed by its predecessor TOE, a funder of community and environmental projects from 1998 to 2010.⁷¹ toe² is a charity, a non-profit making company and an ENTRUST registered environmental body. It channels funds from a wide range of sources, including statutory, companies, trusts, individuals and the Landfill Communities Fund (LCF), to provide information and grants to community environmental projects. It funds improvement of biodiversity of local habitats; increased access to and wider promotion of the countryside and green spaces; and projects that encourage and develop the sustainable use of renewable resources in local communities.

Community Funds

Community foundations manage funds provided by local and other donors for causes in a local area. Community foundations tend to support community-based charities and voluntary groups whose work benefits local people. The four Community Foundations relevant to the Chilterns are:

- *Heart of Bucks*, Buckinghamshire's Community Foundation⁷²
- Bedfordshire and Luton Community Foundation⁷³
- Hertfordshire Community Foundation⁷⁴
- Oxfordshire Community Foundation⁷⁵

The UK Community Foundation acts as the umbrella organisation for all community foundations.⁷⁶

Other funds might be available locally, for example through schemes such as Waitrose's Community Matters.

EXAMPLE: Waitrose Community Matters scheme has donated £14 million to local charities since its launch in 2008. Waitrose donates £1000 each month to be shared amongst three local charities. The local charitable causes are chosen by a panel from applications received. Customers of Waitrose receive a small plastic token at the checkout, which they place in the box of the good cause they'd most like to support. The more tokens a cause gets, the bigger the proportion of the £1000 they receive. Organisations wishing to be supported should pick up a leaflet at their local Waitrose store for more information.

Landfill Tax Grants

In order to encourage individuals, local authorities and businesses to recycle more and so send less rubbish to landfill sites, the government imposes a tax on every tonne of waste that goes to landfill. Some of the revenue from this source is available for environmental projects on sites within a certain distance of a landfill site, through the Landfill Communities Fund (LCF). A regulating body (ENTRUST) oversees the financial aspects and ensures that funds are properly given. ENTRUST has six main areas of work ('objects') that qualify for funding under the Landfill Communities Fund (LCF) and three are suitable for common land:-

- **Object A** - the remediation or restoration of land which cannot now be used because of a ceased activity that used to take place there;

⁷¹ <http://www.trustforoxfordshire.org.uk/>

⁷² <http://heartofbucks.org/>

⁷³ <http://www.blcf.org.uk/>

⁷⁴ <http://www.hertsfcf.org.uk/grants>

⁷⁵ <http://oxfordshire.org/>

⁷⁶ See <http://ukcommunityfoundations.org/>

- **Object D** - the provision, maintenance or improvement of a public park or another public amenity; and
- **Object DA** - the conservation of a specific species or a specific habitat where it naturally occurs.

A Friends Group would need to register with ENTRUST as an 'Environmental Body' in order to be eligible for grant award, at a cost of £100. However, the Royal Society of Wildlife Trusts (RSWT) operates a small grant system funded through LCF for the county wildlife trusts and others, acting itself as the enrolled body. There will, of course, be less money around as more waste is recycled or incinerated.

EU and Government Funding

Agri-environment payments are part of the Rural Development Programme of the Common Agricultural Policy, which is currently being revised. In England, only around 5% of the land included in agri-environment schemes is thought to be common land⁷⁷ and although around 68% of all common land is included, the majority are in upland areas and comprise large tracts of land.⁷⁸ In the Chilterns, where commons are fragmented and traditional agricultural practices have ceased, agri-environment payments are of less relevance. However, they might be used to reintroduce active management and to control the encroachment of coarse vegetation and scrub, especially where the site has a nature conservation designation (e.g. a Site of Special Scientific Interest).⁷⁹ Further details can be found at the government's website.⁸⁰ For woodlands, information about grants and felling licences is available from the Chiltern Woodlands Project⁸¹ and full details are shown on the Forestry Commission website, with links to new grants under the Common Agricultural Policy (CAP) reform.⁸² In addition, funding through LEADER, a European Union funded delivery mechanism designed to support rural businesses, may be available in the Chilterns.⁸³

Heritage Lottery Funding

Heritage Lottery Funding (HLF) is intended to “help conserve the UK's diverse heritage for present and future generations to experience and enjoy”. It is worth commons communities keeping up to date on what HLF is funding, as categories change. The application guidance for the specific grant programme applied under dictates what outcomes the project is expected to make.⁸⁴

Visitor Giving Schemes

Tourism in the Chilterns AONB relies on the landscape, including the contribution made by the commons. Although visitors might contribute directly to some of the larger organisations who own and manage Chiltern commons, there is an argument for a more collective approach to recouping some of the benefits visitors enjoy through a Visitor Giving scheme shared by all. Visitor giving is “a way of offering visitors an opportunity to give something back to looking after the places they love” (Visit England, 2015). Money raised by tourism businesses through Visitor Giving schemes can contribute to a wide range of

⁷⁷ Short, C. & Waldon J. (2013) The apportionment of agri-environment schemes monies on common land in England. Report to the European Forum for Nature Conservation and Pastoralism. Foundation for Common Land: Penrith.

⁷⁸ Foundation for Common Land. (2009). Trends in pastoral commoning, NE commissioned report NECR001. Natural England. (2013b). Common Land and Shared Grazing, supplement to the Environmental Stewardship Handbook, Natural England: Peterborough.

⁷⁹ For more information see the paper in this series, Local Spaces : Changing Environments.

⁸⁰ <https://www.gov.uk/rural-development-programme-for-england>

⁸¹ <http://www.chilternsaonb.org/woodlands-project.html>

⁸² <http://www.forestry.gov.uk/forestry/INFD-6DFK2U>

⁸³ Those interested should keep informed of the progress of the Chilterns' bid for LEADER funding at <http://www.leader-programme.org.uk/>

⁸⁴ <http://www.hlf.org.uk/looking-funding/difference-we-want-your-project-make>

important landscape and environmental projects across a region, including commons' management. Schemes already operate in other places, such as the Cotswolds AONB⁸⁵ and New Forest National Park. Visit England has produced a toolkit to help destination organisations and others in managing Visitor Giving.⁸⁶ Schemes are very time consuming to set up, because of the huge amount of effort needed to engage local tourism businesses. For that reason, successful schemes are likely to be forward-funded by a grant to employ a full time development officer, or initiated by a group of volunteers, as was the case in the New Forest.

EXAMPLE: the New Forest Trust was established to raise money “to secure the wellbeing of The New Forest for those who live in it and for those who love it, now and in the future.” The Trust currently lists some 52 partner tourism organisations which offer some sort of financial support, such as offering diners a 'signature dish' and donating £1 to the Trust for each sale. The Trust also offers a friends membership, invites donations and bequests and operates the Love the Forest Scheme: a way in which visitors to the New Forest are able to make a contribution to its upkeep by a small donation when they pay for their accommodation, meal or drinks at participating businesses. Work funded by the Trust includes: Pondhead Inclosure (see earlier) where the Trust is supporting a team of local volunteers to establish a Community Woodland; working with the New Forest Land Advice Service in eradicating Himalayan Balsam from the River Blackwater; funding a trial of reflective stickers to go on the bottoms of ponies and donkey to make them visible at night and so less susceptible to traffic accidents; helping to fund radio transmitters to track bats in flight and the purchase of 20 new bat boxes.⁸⁷

6 Conclusion, Practical Tips and Further Research

This paper has investigated ways of making small, fragmented lowland commons pay their way. A whole host of options are available, from jam and faggot sales to EU grant applications. An overriding conclusion of the work is the need for collective action on Chiltern commons and a Commons Association that can act as an umbrella organisation, championing their cause, drawing attention to their collective value, providing networking opportunities, disseminating information on fund raising and management, and brokering services that single commons cannot achieve on their own. The four-year Chilterns Commons Project has provided all of these services. When the project finishes in July 2015, a Chilterns Commons Association could carry on its valuable work.

The question, therefore, is how might such an organisation be funded in the future? A Visitor Giving scheme is one option (above), but would need forward-funding itself. Worth investigating is the scope for the biodiversity offsetting market to help fund an Association's activities. In order to market ecosystem services, such as translocation or biodiversity offsetting, commons need to be able to link up with developers and their advisors (environmental consultants and ecologists). It would be difficult for individual commons' owners or management committees to market their commons to potential end users. Networks and personal relationships will form an important component of any marketing strategy. Developers will seek a sustained service, which eases the frustration of sourcing mitigation land. Some form of collective marketing would be needed, with a third party broker. At present, *Environment Bank*⁸⁸ (a private sector company) is the only organisation specifically set up as a broker in the ecosystem services market place and it is currently

⁸⁵ <http://www.cotswoldsaonb.org.uk/?page=visitor-giving>

⁸⁶ http://www.visitengland.org/england-tourism-industry/DestinationManagersResources/visitor_giving.aspx

⁸⁷ <http://www.newforesttrust.org.uk/>

⁸⁸ <http://www.environmentbank.com/>

developing projects throughout the UK to test biodiversity offsetting. It is likely that other organisations, profit and non-profit making, will enter the marketplace. A Chilterns Commons Association could offer a collective brokering service, offering a GIS database of appropriate common land, allowing developers seeking mitigation land to source categories of land in specific locations.

In the meantime, those interested in helping individual commons need to continue with work as usual. In searching for ways in which people can help commons, a few key messages stand out:

- **Get a little help from your friends**

By harvesting the energy of local communities, either in fundraising or land management, individuals have the opportunity to alleviate the problems associated with managing commons today. Establishing a Friends Group can be the first step in securing sustainable management of the common.

- **Make good use of available resources**

There are ample resources available to managers of commons in terms of information and advice, from internet sources (many of which are listed in this paper) to organisations. Meeting with people from umbrella organisations and other commons can provide a rich source of inspiration for creative ideas, solutions for difficult problems, and enthusiasm for perseverance.

- **No one ever said it would be easy**

To get some sort of income stream from the common is going to involve a good deal of hard work and dedication. Those with enough enthusiasm to manage their common will face many obstacles along the way, but will also be rewarded by the eventual success of seeing a part of their local heritage saved for future generations and a community re-engaged with nature and itself. Saving a local common is not for the faint-hearted, but all those who make such valuable contributions clearly derive immense benefit themselves.

- **There is safety in numbers**

A key issue is the ability to benefit from economies of scale. It is sensible for commons to team up to reduce the costs of one-off capital items and regular maintenance costs, and to gain access to larger markets for products and services. Clusters of commons under different ownership and management, can work together to:

- obtain best prices on tenders offered for maintenance;
- share capital items (such as a coppice retort, mobile fencing, etc.);
- share marketing costs of products and services;
- join forces to sell in sufficient quantities to sizeable markets;
- benefit from investment in branding for local produce.

- **Be unique and distinctive**

There is no one-size-fits-all solution to making commons pay. This paper contains lots of information sources and ideas, but it is up to a local community, and those within it prepared to work for the common, to find the best means for them. It will be a journey of discovery, and that is probably what will make it all the more rewarding.

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Some Useful Online Links

COMMONS / COMMUNITY MANAGEMENT

Chorleywood Community Orchard www.chorleywood-orchard.org.uk

Common Ground <http://commonground.org.uk/>

The Lynchmere Society <http://thelynchmeresociety.org/>

Friends of Nettlebed Common www.nettlebed-commons.org

New Forest Trust www.newforesttrust.org.uk

Pondhead Conservation Trust www.pondheadconservation.org.uk

ECOSYSTEM SERVICES

The Environment Bank www.environmentbank.com/

FOOD

Thame Food Festival www.thamefoodfestival.co.uk

FUNDING

Bedfordshire and Luton Community Foundation www.blcf.org.uk/

Better Fundraising www.better-fundraising-ideas.com

Easy Fundraising www.easyfundraising.org.uk

Environmental Funders Network www.greenfunders.org

Fit for Funding www.fit4funding.org.uk

Grants Online www.grantsonline.org.uk

Heart of Bucks, Buckinghamshire's Community Foundation <http://heartofbucks.org/>

Heritage Lottery Fund www.hlf.org.uk

Hertfordshire Community Foundation <http://www.hertsfcf.org.uk/grants>

Landfill communities fund <http://www.entrust.org.uk/landfill-community-fund>

LEADER www.leader-programme.org.uk/

Oxfordshire Community Foundation <http://oxfordshire.org/>

toe² - Trust for Oxfordshire's Environment www.trustforoxfordshire.org.uk

UK Community Foundation <http://ukcommunityfoundations.org/>

HUNTING

Cervus UK www.cervus-uk.co.uk/index.asp

The Deer Initiative www.thedeerinitiative.co.uk/

POLICY & ADVISORY BODIES

Buckinghamshire and Milton Keynes Natural Environment Partnership www.bucksmknep.co.uk/

Chilterns Conservation Board for Chilterns AONB www.chilternsaonb.org

Foundation for Common Land <http://www.foundationforcommonland.org.uk/>

Gov UK <https://www.gov.uk/common-land-village-greens>

Grazing Animals Project <http://www.grazinganimalsproject.org.uk/>

Natural England www.naturalengland.org.uk

Open Spaces Society <http://www.oss.org.uk/>

Wild Oxfordshire <http://www.wildoxfordshire.org.uk/>

Royal Society of Wildlife Trusts: www.wildlifetrusts.org

RECREATION

Chilterns Rangers www.chilternrangers.co.uk/corporate/

VOLUNTEERING

Volunteering England www.volunteering.org.uk

Trust for Conservation Volunteers www.tcv.org.uk

WOODLANDS

Carbon Compost Company www.biocharretort.com

Chiltern Woodlands Project www.chilternsaonb.org/woodlands-project

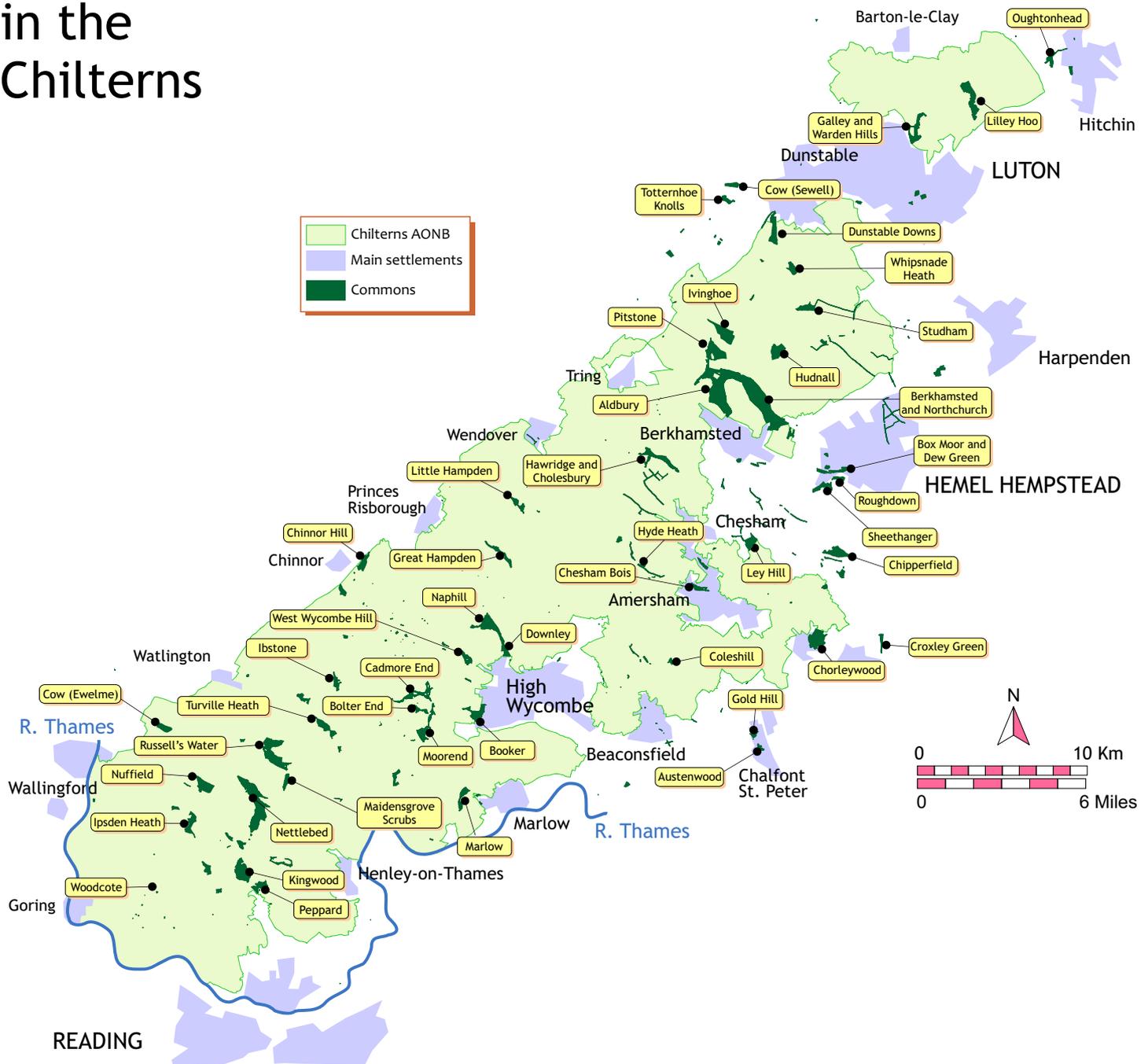
Forestry Commission www.forestry.gov.uk

Small Woodland Owners Group www.swog.org.uk

Ward Forester www.wardforester.co.uk/

Woodlands.co.uk www.woodlands.co.uk

Commons in the Chilterns



There are around 200 commons in the Chilterns, covering over 2000 hectares and ranging from strips of grass verge to rolling hectares of wildflower-rich grassland and woodland. They play a valuable role in the natural and cultural heritage of the Chilterns Area of Outstanding Natural Beauty.

There is more information about commons in the Chilterns online at www.chilternsaonb.org/commons

See the interactive map to find your nearest common, or contact the Chilterns Conservation Board on 01844 355500 or The Lodge, 90 Station Road, Chinnor, Oxfordshire, OX39 4HA.

