

Appendix A: Ecosystem Approach + Natural Capital Checklist

How is your partnership currently using the Ecosystem Approach and considering Natural Capital ?

Name of partnership: Malvern Hills AONB

Start date: 04/01/19

Completion date:

About your partnership -

- **Completed by whom? (Name and organisation): Paul Esrich & Karen Humphries, AONB Unit**
- **Which partners and other organisations were involved in undertaking this self-assessment?**
- **What is the area your partnership or project operates over (in km2)?: 105km2**
- **Proposed date for reviewing your Checklist:**

Checklist summary	Progressing towards meeting the Question				Meeting the Question	
Your assessment – of how far you are meeting each Question	No or very little evidence	Some evidence	Good progress	Near to meeting	Meeting	Exceeding
Description of progress	We have little or no evidence to demonstrate that we are underway with this criteria	We have evidence to demonstrate we are beginning to address this criteria – but we have not progressed far	We are at least half way to meeting this criteria and have identified actions planned to address the gaps	We have only one or two areas that require development and action to address these is underway	We have sufficient evidence to demonstrate we are meeting the criteria	We have met the criteria and can demonstrate good practice and/or innovative activity for this criteria
Question 1 – Is your partnership considering the range of Natural Capital* within your partnership area? Have you collated data to understand the state of your Natural Capital*? <i>* including landscapes and associated cultural heritage, see guidance for definition</i>	1	2	3	4	5	6
Question 2 – How are you considering the ecosystem services that come from the Natural Capital in your area? Are you actively seeking to understand and value the key benefits that people need and want from ecosystem services derived from natural capital in your project area? (Remember values can be both monetary and non-monetary)	1	2	3	4	5	6
Question 3 – How are you working in partnership with a wide range of stakeholders and local communities - including those who benefit from ecosystem services – to develop a shared delivery plan and deliver joint actions that enhance Natural Capital and the ecosystem services they provides?	1	2	3	4	5	6
Question 4 - Does your management planning prioritise actions that enhance and improve the resilience of your Natural Capital* to enable it to provide multiple benefits for people? <i>* including landscapes and associated cultural heritage, see guidance for definition</i>	1	2	3	4	5	6
Question 5 – How does your management planning address the current and future risks, pressures and long term changes (10+ years) affecting your Natural Capital, how it functions, and the multiple benefits/ecosystem services it provides for people?	1	2	3	4	5	6
Question 6 - Are you using monitoring and evaluation to feedback and adjust your management planning, priorities and actions? (i.e. adaptive management)? This can include qualitative assessment and feedback.	1	2	3	4	5	6

Question 1 – Is your partnership considering the range of Natural Capital* within your partnership area? Have you collated data to understand the state of your Natural Capital*?

** including landscapes and associated cultural heritage, see guidance for definition*

Question 1 – your final assessment	1	2	3	4	5	6
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Summary:

Yes. In 2017 the AONB Unit commissioned the Consultancy for Environmental Economics and Policy (CEEP) to produce a Natural Capital Scoping Study for the Malvern Hills AONB. The report was published in December 2017 and is available at: <http://www.malvernhillsaonb.org.uk/wp-content/uploads/2017/12/Malvern-Hills-AONB-Natural-Capital-Scoping-Study-2017.pdf>. The report summarises the Natural Capital (NC) Assets that exist in the AONB and assesses the contribution they make to different Ecosystem Services (ES) in relative terms. The NC assets assessed were as follows: Arable, Improved Grassland, Semi-improved and Neutral Grassland, BAP Priority Grassland, Woodland and Traditional Orchards. The indicative extent (in ha) of each NC asset is provided.

Other data sets include:

Information about rare species in the North of the AONB from the 'Finding rare species in the Malverns' project - ongoing

Condition data about historic houses and parks, local geology sites and footpaths collected as part of the State of the AONB survey work – 2018

Survey work relating to the Kings Third C17 ditches and banks of the North Malvern Hills

Dark sky monitoring – on going

Evidence and examples:

The Scoping Study was based on the best data available, provided both by the AONB Unit and a range of partner organisations. However, this data was incomplete and sometimes dated and as such the assessments carried out are indicative. No specific scores or values are provided but ES derived from the NC assets are graded as of high, medium or low importance to people and society. In broad terms the assessments show that:

- Arable land and improved grassland fall below the highest importance in terms of food provision because the land in the Malvern Hills AONB is only of medium productivity. These assets also score low for providing other ES when compared to other Natural Capital assets and even have a potential negative effect on water quality due to diffuse pollution issues.
- Semi-improved and neutral grassland is less productive in terms of food provision but more valuable for biodiversity and aesthetic values. These Natural Capital assets are also likely to have some positive effect on water quality regulation as opposed to their more intensively managed counterparts. Biodiversity Action Plan (BAP) priority grasslands, dominated by lowland dry acid grassland, provide an even higher biodiversity value. They also offer a high recreational value which is due to the good accessibility of BAP priority grasslands in the AONB, particularly on the Malvern Hills and Commons.
- Woodland and traditional orchards provide the most balanced level of ecosystem service provision across all assessed Natural Capital assets. Woodlands and traditional orchards are at least of medium importance for each ecosystem service and superior to other Natural Capital assets in terms of air and climate regulation services (mitigation and adaptation).

The global climate regulation services provided by Natural Capital in the AONB (carbon stored in vegetation and topsoils) are valued at £59 million (see Section 2.2.9 of the report).

Gaps, opportunities & areas for development:

A key evidence gap which precluded more detailed assessment of NC and ES was information about the current condition, quality and management of habitats. This gap meant that indications of value in the report were sometimes based on national trends rather than local evidence. Levels of confidence in the different assessments carried out are indicated in the report. The Unit doubts whether it is feasible/affordable to generate up-to-date information about the condition, quality and management of all the main habitats across the AONB.

A secondary aim of the Scoping Study was to assess the potential for valuing Natural Capital assets in the Malvern Hills AONB in monetary terms based on available data and evidence. Out of the 54 Natural Capital asset category/ecosystem services combinations provided 23 can (almost) be fully quantified in monetary terms whilst 8 can be partially quantified. However, for some calculations additional data would need to be generated to inform a monetary assessment. The study found that it will be possible to quantify the physical health value related to 'green exercise' and it may also be possible to quantify the mental health value attached to the AONB's Natural Capital. For the other Natural Capital asset category/ecosystem services combinations, robust scientific evidence suitable for monetary quantification is lacking and it was determined that these assets cannot be monetised.

The contribution of NC to human health was not considered as part of the Scoping Study and this is an area that we would like to explore further, given the popularity of the Malvern Hills and Commons for outdoor recreation, especially amongst those who live close by. As part of a modest visitor survey which was conducted in the area in the summer of 2018 we asked a series of questions designed to enable a consultant to monetise the area's contribution to health, for example, through understanding what activities people engage in and how long they spend in the area. Dependent on costs and checking the recent survey data it is expected that a limited assessment of health benefits could be commissioned shortly.

There is a need to communicate clearly with both partners and non partners about the natural capital work and about the Ecosystem Approach, so that they are familiar with the term and are encouraged to add to data collection.

Question 2 – How are you considering the ecosystem services that come from the Natural Capital in your area? Are you actively seeking to **understand and value the key benefits that people need and want from ecosystem services derived from natural capital in your project area? (Remember values can be both monetary and non-monetary)**

Question 1 – your final assessment	1	2	3	4	5	6
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Summary:

Thus far active attempts to 'understand and value' benefits from Ecosystem Services as Ecosystem Services have been limited. Rather, the services and benefits provided by Natural Capital have tended to be considered and incorporated in the broader context of projects and initiatives which help to conserve and enhance natural beauty.

Evidence and examples:

The recently completed Three Counties Traditional Orchard Project (funded by the Heritage Lottery Fund) has placed people at the centre of attempts to better understand traditional orchard heritage and to conserve and enhance traditional orchards. Over 300 volunteers have been involved in the project, learning about traditional orchards and their value and place in local history whilst also getting actively involved in managing and enjoying being in orchards (cultural services). The project has also involved identifying and growing rare varieties of fruit tree which were known to be present in the area in the past and then planting these trees back into traditional orchards (genetic diversity – provisioning services).

A project in development at present concerns management of roadside verge areas to enhance their biodiversity. A better display of native wildflowers in verges will benefit pollinators (regulating services) who will then be active in surrounding areas of farmland where they will benefit crop production (provisioning services). It will contribute to peoples' enjoyment of the area (cultural services) as well as the supporting services provided by biodiversity.

Responses collected as part of a visitor survey of users of the Malvern Hills and Commons have helped us to identify what people particularly like about the area and what they use it for. This then feeds back into management. For example, people said they particularly enjoyed/valued the views and this has helped us to bolster our work to safeguard these views. The visitor survey also revealed what recreational activities people engage in, how long they spend doing these activities and how much less they would exercise if the open spaces of the hills and commons were not available. These results are now being used in a study to assess the economic health benefits derived from this area. The study values the physical and mental health benefits of the area at £5.8m per annum. The study results will be presented to a local Health and Well-being Partnership with the aim of trying to encourage more preventative health interventions in the area.

Gaps, opportunities & areas for development:

In almost all cases we would benefit from actively seeking to understand the value of Ecosystem Services at project planning stage and to document this value both prior to project start-up and on completion.

Discussions with the University of Worcester on possible collaborative working in the future may reveal opportunities for helping to measure the flow of Ecosystem Services.

Question 3 – How are you working in partnership with a wide range of stakeholders and local communities - including those who benefit from ecosystem services – to develop a shared delivery plan and deliver joint actions that enhance Natural Capital and the ecosystem services they provides?

Question 1 – your final assessment	1	2	3	4	5	6
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Summary:

There are many different stakeholders involved in the AONB Partnership. The (new) AONB Management Plan does not contain a detailed shared delivery or action plan, it only identifies a small number of illustrative actions. Our approach is to identify actions in annual Business Plans in the run-up to (and sometimes during) each new financial year when partner priorities and resources are better known and articulated. It is intended that initiatives and projects related to NC and ES will be identified and delivered in the same vein, either directly through the AONB Unit or via the AONB Unit dove-tailing with and supporting the work of others.

As mentioned earlier, NC and ES have become more integral to the AONB Management Plan through the recent review process.

Evidence and examples:

The AONB Unit is working with a cluster of landowners and land managers in the western part of the AONB through its Facilitation Fund. The Unit is commissioning mapping work which will identify opportunities for bigger, better, more and more joined up habitat management to benefit key wildlife species in the area. This work is expected to be crucial in landowner discussions about how to improve parkland, ancient semi-natural woodland and traditional orchards and to build resilience at a landscape scale.

The AONB Unit is working with the Worcestershire Biological Records Centre, local people and local landowners on a HLF funded project to survey rare wildlife in the northern part of the AONB. Survey work is being focused on private land which has not benefitted from survey in the past. It is expected that the results from this work will feed into discussions with landowners and managers about actions that will benefit wildlife, where appropriate supported by partners such as the AONB Unit or Natural England.

The AONB Unit has begun to work with health related partners to develop/support joint actions that will contribute to people's health and wellbeing. For example, it is using the AONB Sustainable Development Fund to support an initiative organised by Freedom Leisure aimed at encouraging more local people to access the Malvern Hills. It is also exploring a joint project with Worcestershire County Council using community transport to enable people who may not be able to easily access the AONB to access heritage. The AONB Unit has recently commissioned an economic assessment of the health and well-being benefits of the AONB. The results of this work will be presented to the Malvern Hills Health and Wellbeing Partnership which includes staff representing a wide range of health bodies. It is hoped that the study will be a spring board to greater collaborative working.

Gaps, opportunities & areas for development:

1. There is a need to be even more proactive in liaising with partners to develop NC and ES planning and actions. The Facilitation Fund is taking us closer to those who own and manage land but there is a gap in our knowledge and experience in the area of land management which needs to be filled.
2. Using AONB Management Plans to help direct NELMS would be a great driver for putting NC and ES at the heart of more integrated planning. In the meantime actions drafted for annual work plans could be NC/ES proofed.
3. Early work by Natural England to highlight climate change adaptation opportunities in the area could be developed further and incorporated within planning discussions and action planning to inform and drive change in the area.
4. The AONB Management Plan contains an illustrative action to encourage use of the Natural Capital Planning Tool in the AONB. Discussions need to take place with Local Planning Authorities to explore whether this can be piloted in the area.
5. There is a need to build stronger relationships with local communities and community groups by improving our communication about the AONB and the opportunity to work in partnership with us.
6. We need to find better ways of making our plans and strategies more accessible to a wider range of people.

Question 4 – Does your management planning prioritise actions that enhance and improve the resilience of your Natural Capital* to enable it to provide multiple benefits for people?

* including landscapes and associated cultural heritage, see guidance for definition

Question 1 – your final assessment	1	2	3	4	5	6
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Summary:

To some extent yes, but not necessarily couched in those terms. A new management plan for the Malvern Hills AONB (2019-24) has recently been endorsed by the Joint Advisory Committee (JAC) and has been sent for formal sign-off by constituent local authorities. It will commence on 01/04/19. Within the introduction NC and ES are recognised as a common themes running through the plan but the document is structured along more traditional lines with chapters related to specific themes including landscape, biodiversity, historic environment etc. The focus of each chapter is its objectives and policies and implementing a number of these will deliver for NC, even if this is not specifically stated. Only a small number of illustrative actions are provided in the plan, the intention is to use the objectives and policies to drive appropriate and realistic actions with partners in each year. In the design of the management plan it may be possible to highlight areas which would specifically develop against NC.

Evidence and examples:

Paragraphs 1.20 – 1.24 of the management plan provide an introduction to NC and ES for the AONB.

Landscape Objective LO2 – Advocate and implement appropriate adaptation and mitigation measures to address climate change.

Biodiversity policy BP1 – Enhance the wildlife value of the countryside and achieve greater buffering and connectivity between key habitats within the AONB and the countryside beyond.

Historic Environment Policy HP3 – Promote greater public understanding of, and engagement with, the historic environment of the AONB.

Farming and Forestry Policy FP1 – Ensure that agricultural practices include:

- Sustainable production of produce;
- Sustainable utilisation of soil, minimising erosion;
- Effective water catchment management;
- Avoidance of direct pollution and measures to reduce diffuse pollution;
- Farm waste minimisation and recycling.

Farming and Forestry Policy FP2 – Bring woodlands, orchards and other characteristic habitats into favourable conservation condition through encouraging and supporting management regimes that provide an economic return.

Farming and Forestry Policy illustrative action – Identify the natural and cultural capital and ecosystem services to be key components of future agri-environment, land management and rural development support mechanism in the AONB.

Built development illustrative action – Explore the use of the NC Planning Tool to assess development proposals for their likely impact on the AONB's NC and the ES it provides to people.

Recreation and Access Policy RP5 – Develop, support and promote programmes and projects that improve health and well-being for all, especially those that are most in need.

Recreation and Access Policy RP6 – Increase the range of opportunities for those with restricted mobility and health impairments to experience the AONB.

We are currently working on guidance for external lighting and are in the process of designating dark sky areas, both of which support our ambition of improving tranquillity.

We are about to publish views guidance which will provide advice to developers and farmers about protecting long distance views within and from the AONB.

Our work with the Facilitation Fund will provide opportunities to plan projects which improve connectivity between land holdings in the AONB.

The Malvern Hills Trust is one of our AONB partners and produced a 5 year management plan for a large part of the AONB which is actively managed by the Trust IN 2016. This includes a detailed action plan which aims to conserve and enhance both natural and cultural assets.

Gaps, opportunities & areas for development:

Whilst the management plan is felt to enhance and improve the resilience of NC there are undoubtedly opportunities to better structure the document such that NC provides a more central focus. However, this won't happen now until the new plan is reviewed. It is also felt that such a re-structuring needs to be predicated on better NC data as well as on a better understanding of the relationship between NC and Natural Beauty.

Current gaps etc include:

- a focus on catchments, although this is not easy for us since the AONB occupies just a small % of two main catchments and so there is limited opportunity in considering such work within the AONB alone;
- a more progressive look at future landscapes beyond the constraints of existing character assessments;
- a way of directing future land management schemes towards NC objectives in the AONB, though the AONB landscape strategy may provide a starting point.

Question 5 – How does your management planning address the current and future risks, pressures and long term changes (10+ years) affecting your Natural Capital, how it functions, and the multiple benefits/ecosystem services it provides for people?

Question 1 – your final assessment

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Summary:

As in the response to question 4, whilst the (new) AONB management plan recognises NC and ES as common elements the document is structured along more traditional lines with chapters related to specific themes including landscape, biodiversity, historic environment etc. Within that context current and future risks, pressures and changes are recognised as 'issues' within the plan. Objectives and policies at the end of each chapter then set out how those issues will be addressed. However, the structure of the plan in themed chapters does not necessarily lend itself well to a portrayal of the sometimes complex and multi-layered relationships which exist when considering NC and ES. In respect of timescales the AONB management plan is a 5 year document and some issues relate to that time period of time but objectives and policies should, in most cases, relate to the 20 year vision contained in the plan.

Evidence and examples:

1. The management plan recognises that new activities and developments within the AONB and its setting are adding noise, light and movement into the landscape over a period of time and that this can impact on peoples' tranquillity, sense of place etc (cultural services). A policy seeks to address these effects by ensuring that future change and development is informed by AONB guidance documents, including on lighting.
2. The management plan recognises that a decline in pollinator numbers is a significant threat to local wildlife, peoples' enjoyment of the area and the agricultural economy. Policies seek to address this by conserving, enhancing and expanding key habitats as well as by enhancing the wildlife value of the countryside and achieving greater buffering and connectivity between key habitats.
3. The management plan recognises that traditional orchards are a key habitat which are particularly susceptible to development pressures because of their proximity to settlement. They are flagged in the Natural Capital Scoping Study as delivering a variety of ES (provisioning, regulating and cultural services). A policy in the plan contains a presumption against the loss of traditional orchards or their change to other uses.

Gaps, opportunities & areas for development:

Future management planning would benefit from an articulation of how NC and ES relate to natural beauty and a clear portrayal of the interrelated nature of many aspects of NC and ES. There is overlap and some duplication of issues in the management plan but this is intentional and reflects a desire to make the document as easy to use as possible for a wide audience.

Question 6 – Are you using monitoring and evaluation to feedback and adjust your management planning, priorities and actions? (i.e. adaptive management)? This can include qualitative assessment and feedback.

Question 1 – your final assessment	1	2	3	4	5	6
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Summary:

Yes. The AONB Partnership produces a State of the AONB report every five years, see for example: <https://bit.ly/2N2pdI7>. This contains data on a core suite of indicators which provide an overview of the health of the AONB. Data for this report is collected early in the year in which the Management Plan is reviewed. This ensures that any issues or problems identified in the data collection can be highlighted and addressed through the new management. In addition, the AONB Unit carries out additional monitoring from time to time, for example on broader landscape change (<https://bit.ly/2E67Weg>) and levels of traffic use (<https://bit.ly/2WZQJe8>).

Evidence and examples:

Data collected on the condition of Local Geological Sites (LGSs) in 2014 showed that there had been a deterioration in condition (61.5%% of sites in desirable condition compared with 75.6% in 2008). To address this issue the AONB Unit and a major landowner in the area supported a group of geoconservation volunteers to develop and implement a maintenance programme for a number of these sites. In 2018 data showed that this approach had been successful, with 83.3% of LGSs now in desirable condition.

Data collected for the 2018 State of the AONB report revealed that one of the registered parks and gardens in the AONB was assessed as being in vulnerable condition as a result of fragmented ownership, lack of succession planting and the absence of a management plan. Through the AONB Facilitation Fund the AONB Unit has now contacted the landowners concerned and is working with them, and Historic England, to develop a management plan for the site.

In its report entitled '10 years of landscape change in the Malvern Hills AONB' the gradual loss of mature/veteran trees in hedgerows and fields and the absence of any recruitment of young trees was identified as a clear threat to the character of the AONB. This threat has been given greater prominence in the new AONB Management Plan and the AONB Unit has provided grants to a small number of landowners in recent years to plant new trees in hedgerows.

In recent years there has been an increase in development in the setting of the AONB, including large scale development which has had a negative impact on views from the high ground of the AONB. The new AONB Management Plan now contains a policy stating that strategic allocations of land for development should be informed by a Landscape Sensitivity and Capacity Study (LSCA) or by Landscape and Visual Impact Assessment or Appraisal. The AONB Unit has recently collaborated with one Local Planning Authority to commission and manage a LSCA for the setting of the AONB around Malvern. This work will form part of the evidence base for the revision of the Local Development Plan. In addition, the AONB Unit has supported the development of a Neighbourhood Development Plan by Malvern Town Council which identifies key views and contains a policy protecting them.

Gaps, opportunities & areas for development:

The scale and extent of the State of the AONB monitoring work is limited by available resources. This means that we do not know about the current condition of certain features of the AONB and so cannot respond accordingly. However, prompted by Historic England we are currently piloting the collection of data on locally important buildings in one part of the AONB and are collecting information on the current condition of these buildings as part of this work. This will form a baseline against which future change can be monitored. We are exploring whether this work, which in the pilot area is being supported by the Parish and District Council, could be rolled out to other parts of the AONB.

A key threat to the AONB is change taking place under permitted development rights, for example, replacement of curtilage hedges and characteristic stone walls with ubiquitous close board fencing. We are currently exploring a collaboration with a different Parish Council to see if this change can be documented through analysis of Google Maps imagery.

The potential loss of Monitoring Environmental Outcomes in Protected Landscapes (MEOPL) data cut to AONB boundaries, provided in the past by Government Agencies, is a serious threat to our monitoring work.

We could do more to understand the qualitative experiences of those who live, work and visit over the wider AONB area, especially the areas outside the hills.