



EARCH INSTITUTE

Public perceptions of the impact of Agri-**Environment Schemes** on the landscape

FINAL REPORT

To Natural England

BY THE COUNTRYSIDE AND COMMUNITY RESEARCH INSTITUTE

Project Title:

Public perceptions of the impact of Agri-Environment Schemes on the landscape

Client Reference ECM 63819

Start Date 1st March 2022 Project Manager Chris Short

Countryside and Community Research Institute University of Gloucestershire Francis Close Hall Campus Cheltenham Gloucestershire GL50 4AZ ccri.co.uk Finish Date 31 March 2023 **Research Team** CCRI, LUC and Research

Duration 14 months Date of Report 22 May 2023

Box

Acknowledgements

The study was funded by Defra and managed by Liz Bingham of Natural England. Thank you to the Project Steering Group for their advice: Chris Bolton (Natural England) and Helen Baxter and Sarah Mcloughlin (Defra).

When quoting this report use the following citation:

Short C, Barkley L, James N, Grant M, Duncan S, Lawrie C, Hammonds R, Fleming A, Inwood H and Gaskell P (2023) Public perceptions of the impact of Agri-Environment Schemes on the landscape, Report to Natural England. Countryside and Community Research Institute: Cheltenham.

In memory of Hugh Inwood, whose expertise and insights contributed greatly to the report.

Contents

Contents	3
Figures	5
Tables	9
Glossary	9
Abbreviations	10
Executive summary	11
1. Introduction	18
1.1 Context and aims	18
2. Methodology	19
2.1 The quantitative sample and methodology	19
2.2 The qualitative sample and methodology	22
3. Literature review	27
3.1 Overview	27
3.2 Research Question 1	28
3.3 Research Question 2	30
3.4 Research Question 3	36
4. Quantitative survey of public views on the effectiveness of AES for their local landscape	42
4.1 Introduction	42
4.2 Summary of key findings	42
4.3 Use of local countryside landscapes	43
4.4 What is important in the countryside?	44
4.5 Participants' attitudes to their current landscape	47
4.6 Attitudes towards AES	49
4.7 Perceptions of landscape change	55
4.8 Reactions to the post-AES landscape images	57
4.9 Potential of AES to encourage countryside visits	64
4.10 Summary of countryside ratings and how they compare	65
4.11 Are countryside users' needs being met?	67
4.12 Engaging the public	69
4.13 Some views from the farming community	70

4.14 Some conclusions from the survey	73
5. Qualitative review of public views on the effectiveness of AES for their local landscape	75
5.1 Introduction	75
5.2 People's use of the countryside and the benefits it delivers	75
5.3 Landscape change	85
5.4 A wilder future and AES-driven change	99
5.5 Landscape character objectives	102
5.6 Future engagement or communication	104
5.7 Summary and recommendations for further research	105
6. Comparing the relationship between public and professional views on AES effectivenes landscape	s for 107
6.1 Introduction	107
Overview of comparison of technical and public perception findings	108
6.2 ALT 1: Chalk and Limestone Mixed	112
6.3 ALT 2: Eastern Arable	116
6.4.1 ALT 3: South east mixed – arable reversion	120
6.4.2 ALT 3: South east mixed – tree planting	123
6.4.3 ALT 3: South east mixed – riparian	126
6.5.1 ALT 4: Western Mixed – buffer strip	130
6.5.2 ALT 4: Western Mixed – woodland planting	133
6.6 ALT 5: Upland Fringe	140
6.7.1 ALT 6: Upland – riparian	144
6.7.2 ALT 6: Upland - walls, low input grassland, tree planting	148
6.7.3 Urban Fringe – hedges, tree planting, arable reversion	152
6.7.4 Urban Fringe – agro-forestry	155
6.7.5 Urban Fringe – archaeology, hedges, scrub	157
7. Discussion and key findings	159
7.1 Adding to understanding around public perceptions	159
7.2 Comparing public perceptions and professional opinions	160
7.3 Future considerations and development	162
7.4 Landscape objectives within AES	163
8. Conclusion and recommendations	164
9. References	168
10. Appendices	171

10.1 Outline of Rapid Evidence Assessment into the effectiveness of AES on the land	idscape,
and a gap analysis of evidence.	171
10.2 Recruitment questionnaire	176
10.3 Text of invitation to the online survey	178
10.4 Online survey questionnaire	179
10.5 Survey profile	189
10.6 Focus group and video diary recruitment questionnaire	192
10.7 The qualitative sample	199
10.8 Focus group discussion guide	201
10.9 'Before' and 'after' AES visualisations	205
10.10 Participant drawings from the focus groups	220
10.11 Scenarios to test in agricultural landscape types	223

Figures

Figure 2.1: Example 'before' image, showing a location within the existing landscape in the Battle/ Hawkhurst area	21
Figure 2.2: Example 'after' image from the Battle/Hawkhurst area	22
Figure 4.1: Frequency of local countryside visits	43
Figure 4.2: Leisure activities undertaken during local countryside visits	44
Figure 4.3: Importance of countryside purposes and characteristics	45
Figure 4.4: Importance of other countryside factors	45
Figure 4.5: Favourite countryside landscapes in England	46
Figure 4.6: Wordcloud on the topic of beauty in countryside landscapes	47
Figure 4.7: Attractiveness of the local countryside view ('before' image)	48
Figure 4.8: Ratings for local countryside view ('before' image)	48
Figure 4.9: Ratings for local countryside view by ALT (before image)	49
Figure 4.10: Beliefs about the local countryside	50
Figure 4.11: Overall attitudes to AES	51
Figure 4.12: Overall attitudes to AES, by AES locality	51
Figure 4.13: Perceived impacts of AES on the local countryside	52
Figure 4.14: Perceived policy priorities for AES	53
Figure 4.15: Perceived countryside-feature priorities for AES	54

Figure 4.16: Perceived preferences for potential AES impacts	54	
Figure 4.17: Perceptions of change in local countryside landscapes	55	
Figure 4.18: Perceptions of change in local countryside landscapes, by ALT		
Figure 4.19: Attractiveness, 'before and after' views compared		
Figure 4.20: Attractiveness, before and after views compared, by ALT		
Figure 4.21: Improvement of view, after image compared with before image	58	
Figure 4.22: Improvement of view, 'after' image compared with 'before' image, by ALT	59	
Figure 4.23: Ratings for local countryside view ('after' image)	60	
Figure 4.24: Attractiveness of post-AES landscape aspects ('after' image)	62	
Figure 4.25: Attractiveness of post-AES landscape features ('after' image)	63	
Figure 4.26: Intended frequency of countryside visits in the post-AES landscape	64	
Figure 4.27: Intended variety of countryside visit reasons in the post-AES landscape	64	
Figure 4.28: Comparative ratings for local countryside views (no image and 'before' image)	65	
Figure 4.29: Comparative ratings for local countryside views (no image and 'after' image)	66	
Figure 4.30: Comparative ratings for local countryside views ('before and after' images)	66	
Figure 4.31: Gap analysis for local countryside (no image and importance scores)	67	
Figure 4.32: Gap analysis for local countryside ('before' image and importance scores)		
Figure 4.33: Gap analysis for local countryside (after image and importance scores)		
Figure 4.34: Gap analysis for local countryside features (no image and importance scores)	69	
Figure 4.35: Interest in future volunteering	69	
Figure 4.36: Attitudes towards AES, farming community and other countryside users	70	
Figure 4.37: Perceived post-AES countryside changes, farming community and other countryside	71	
Figure 4.38: Perceived AES policy priorities, farming community and other countryside users	71	
Figure 4.39: Perceived AES feature priorities, farming community and other countryside users	72	
Figure 5.1: Stafford/Cannock ALT 4 Western Mixed drawings	78	
Figure 5.2: Battle/Hawkhurst ALT 3 South East Mixed drawing	78	
Figure 5.3: Bowness/Windermere ALT 6 Upland drawing	78	
Figure 5.4 Nelson/Colne ALT 5 Upland Fringe drawing	79	
Figure 5.5: Leicester, Urban Fringe drawing	79	
Figure 5.6: Thetford ALT 1 Chalk and Limestone Mix drawings	79	
Figure 5.7: Bedford/Colmworth ALT 2 Eastern Arable drawing	80	
Figure 5.8: Participants' countryside experience model	84	
Figure 5.9: ALT1 Chalk and Limestone Mixed, Thetford: before and after AES	87	
Figure 5.10: ALT2 Eastern Arable, Bedford: before and after AES	88	

Figure 5.11: ALT4 Western Mixed, Oundle: before and after AES	89
Figure 5.12: Urban Fringe, Leicester: arable option before and after image	90
Figure 5.13: Urban Fringe, Leicester: agro-forestry option after image	90
Figure 5.14: Urban Fringe Option, Leicester: heritage feature before and after image	91
Figure 5.15: ALT4 Western Mixed, Stafford: before and after AES	91
Figure 5.16: ALT3 South East Mixed, Battle: before and after AES	92
Figure 5.17: ALT6 Upland, Bowness: before and after AES	92
Figure 5.18: Taunton riparian context 'before and after' AES images	93
Figure 5.19: ALT3 South East mixed, Battle: riparian context 'before and after' AES images	94
Figure 5.20: ALT6 Upland, Bowness: riparian context 'before and after' AES images	94
Figure 5.21: ALT5 Upland Fringe, Nelson: before and after AES	95
Figure 5.22: Example outputs from the online 'collage' games	98
Figure 6.1: Attractiveness of baseline landscapes and views on illustrated changes	110
Figure 6.2: Technical findings for Alt 1: Chalk and Limestone Mixed	112
Figure 6.3: Before and after AES	112
Figure 6.4: Public views of the attractiveness of current and future landscapes – ALT 1: buffer str hedges	ips, 114
Figure 6.5: Public views of the impact of illustrated landscape changes ALT1: buffer strips,hedge	s 114
Figure 6.6: Technical findings for ALT 2: Eastern Arable	116
Figure 6.7: Before and after AES	116
Figure 6.8: Public views of the attractiveness of current and future landscapes – ALT 2: buffer str hedges	ips, 118
Figure 6.9: Public views of the impact of illustrated landscape changes ALT2:buffer strips, hedge	s 118
Figure 6.10: Technical findings for ALT 3: South east mixed	120
Figure 6.11: Before and after AES	120
Figure 6.12: Public views of the attractiveness of current and future landscapes – ALT 3: arable reversion	121
Figure 6.13: Public views of the impact of illustrated landscape changes - ALT 3: arable reversion	n 121
Figure 6.14: Technical findings for Alt 3: South East Mixed	123
Figure 6.15: Before and after AES	123
Figure 6.16: Public views of the attractiveness of current and future landscapes – ALT 3: tree plan	nting 124
Figure 6.17: Public views of the impact of illustrated landscape changes – ALT 3: tree planting	124
Figure 6.18: Technical findings for 3: South east mixed	126
Figure 6.19: Before and after AES	126

Figure 6.20:	Public views of the attractiveness of current and future landscapes - ALT 3: Riparian	127
Figure 6.21:	Public views of the impact of illustrated landscape changes - ALT 3: Riparian	128
Figure 6.22:	Technical findings for ALT 4: Western Mixed	130
Figure 6.23:	Before and after AES	130
Figure 6.24:	Public views of the attractiveness of current and future landscapes – ALT 4: buffer strips	131
Figure 6.25:	Public views of the impact of illustrated landscape changes - ALT 4: buffer strips, hed	ges 132
Figure 6.26:	Technical findings for ALT 4: Western Mixed	133
Figure 6.27:	Before and after AES	133
Figure 6.28:	Public views of the attractiveness of current and future landscapes – ALT 4: woodland planting	ป 134
Figure 6.29:	Public views of the impact of illustrated landscape changes - ALT4:woodland planting	135
Figure 6.30:	Technical findings for Alt 4: Western Mixed	137
Figure 6.31:	Before and after AES	137
Figure 6.32:	Public views of the attractiveness of current and future landscapes – ALT 4: riparian	138
Figure 6.33:	Public views of the impact of illustrated landscape changes - ALT 4: riparian	139
Figure 6.34:	Technical findings for ALT 5: Upland Fringe	140
Figure 6.35:	Before and after AES	140
Figure 6.36:	Public views of the attractiveness of current and future landscapes – ALT 5: stone wa hedges, fences, low input grazing	lls, 141
Figure 6.37:	Public views of the impact of illustrated landscape changes – ALT 5: stone walls, hed fences, low input grazing	ges, 142
Figure 6.38:	Technical findings for ALT 6: Upland	144
Figure 6.39:	Before and after AES	144
Figure 6.40:	Public views of the attractiveness of current and future landscapes - ALT 6: Riparian	146
Figure 6.41:	Public views of the impact of illustrated landscape changes – ALT 6: Riparian	146
Figure 6.42:	Technical findings for ALT 6: Upland	148
Figure 6.43:	Before and after AES	148
Figure 6.44:	Public views of the attractiveness of current and future landscapes – ALT 6: walls, low input grassland, tree planting	v 150
Figure 6.45:	Public views of the impact of illustrated landscape changes – ALT 6: walls, low input grassland, tree planting	150
Figure 6.46:	Before and after AES	152
Figure 6.47:	Public views of the attractiveness of current and future landscapes – Urban Fringe: an and hedgerows	able 153

Figure 6.48:	: Public views of the impact of illustrated landscape changes – Urban Fringe: arable an hedgerows	d 153
Figure 6.49:	Before and after AES	155
Figure 6.50:	: Public views of the attractiveness of current and future landscapes – Urban Fringe: ag forestry	gro- 156
Figure 6.51:	Public views of the impact of illustrated landscape changes – Urban Fringe: agro-fores	stry 156
Figure 6.52:	Before and after AES	157
Figure 6.53:	Public views of the attractiveness of current and future landscapes – Urban Fringe: Archaeology, hedgerows, scrub	158
Figure 6.54:	Public views of the impact of illustrated landscape changes – Urban Fringe: Archaeolo hedgerows, scrub	ogy, 158

Tables

Table 2.1: Locations in which participants were recruited for the survey	21
Table 2.2: Breakdown of the qualitative research type and quantity by ALT24Error! Bookmark not defined.	
Table 5.1: Participants' perceptions of the character of their local area, by ALT	102
Table 6.1: Summary of agreement between technical and public perception findings	109

Glossary

Term	Definition
Agri-environment	Voluntary agreements which provide funding to farmers
scheme (AES)	and land managers to farm in a way that supports
	biodiversity, enhances the landscape, and improves the
	quality of water, air and soil.
Agro-forestry	A relatively new land management practice in the UK
	where trees are deliberately combined with agriculture on
	the same piece of land.
Agricultural landscape	A typology that recognises that if the effects of different
type (ALT)	agricultural policy scenarios were to be compared, there
	needs to be some form of spatial framework that grouped

	together landscapes of a similar type at the national level.
Arable reversion	The reversion of previously cultivated land to natural
	habitat, often grassland or other species rich land cover.
Buffer strip	Buffer strips are areas of permanent vegetation between
	fields and waterways. They aim to protect and/or improve
	water quality by preventing run-off from fields.
Landscape objective	The intended wider outcome of an AES, at the landscape
	scale.
Riparian	Relating to river banks; the area where land and river
	meets
Scrape	A shallow in-field depression that holds water seasonally.
	They create wetter areas that are beneficial to wildlife.
Swale	A marshy depression or shallow channel. They manage
	water run-off, filter pollutants and increase rainwater
	infiltration.

Abbreviations

Abbreviation	Definition
AES	Agri-environment scheme
ALT	Agricultural landscape type
ES	Environmental Stewardship
Defra	Department of Environment, Food and Rural Affairs
LCA	Local Character Assessment
LNRS	Local Nature Recovery Strategies
NCA	National Character Areas
NE	Natural England

Executive summary

Introduction

There is a growing body of research on public perceptions of landscapes, which has focussed on the benefits they wish to gain from their experiences in the outdoors (Research Box et al 2009 & 2011) and on their attitudes to change in the landscape (Swanwick 2009 & Rust et al 2021). This research was tasked with building on this work by examining the benefits the public wish to receive from those landscapes, as well as assessing their responses to how potential changes might visually impact landscapes. This also enabled a comparison between the views of professionals in the design and implementation of Agri-Environment Schemes (AES) for farmed landscape management, and the views of those who visit the countryside and their experience in those landscapes.

The aims of the project were to:

- Increase our understanding of public perceptions of the effectiveness of agri-environment schemes (AES) in delivering the benefits that they seek from their local landscape and the changes that might result.
- Shed light on how the public views and perceptions compare with professional opinions of the effectiveness of AES on landscape character, quality and function.
- Use these insights to provide recommendations on the future alignment of AES landscape objectives with the outcomes desired by the public.
- Provide some evidence for how important the public consider it is for a 'landscape objective' to be included in AES and what that objective ought to be delivering.

Methods

In order to determine which methods would be most effective to collect the information and to assess the existing evidence on the impact of AES on landscape, a Rapid Evidence Assessment (REA) was undertaken. By using a systematic approach (Mills et al 2021) it was possible to identify existing evidence and ensure an informed approach to the survey design. The review was undertaken to answer the following questions:

- What are the effects of AES on the landscape?
- What evidence is there regarding public attitudes to landscape and landscape change?
- Which methodological approaches are most effective at measuring public engagement around landscape and landscape change?

In order to collect data from those who use the countryside, locations were chosen that were close to the Rapid Survey (LUC and Rural Focus 2016) from the six Agricultural Landscape Types (ALT) plus urban fringe, riparian and woodland landscapes. Photos from this survey and more recent ones were then adjusted to show the potential additions that AES agreements might bring to the landscape. These photos were central to the two complementary survey approaches:

- A quantitative survey amongst a sample of over 500 countryside users who had recent experience of their local landscapes.
- Qualitative research with countryside users involving 27 online or face-to-face focus groups, in-depth interviews and video diaries.

Literature review

The literature review provided background research which this study has drawn and built upon. The literature review showed that there is extensive research that can form a baseline for this study. Research into the landscape impacts of AES generally found that AES have a positive impact on landscape character, although the degree of the impact is affected by several factors including the landscape type, levels of AES uptake and the specific AES options implemented. Cultural aspects are seen to be important in the landscape, including access, views and tranquillity. Different visualisation techniques were examined, highlighting the need for standardisation of base features and scale, and clarity of additional features in the photographs. However, gaps in the literature were found: for example, most studies have not focused on the urban fringe. Further, while there is literature that examines attitudes to changes in the landscape, this is most often from the perspective of landowners, farmers and land managers, or is location specific or too general.

Quantitative survey

During the summer of 2022, surveys were carried out with people who had accessed the countryside recently. The purpose of the survey was to gather information about the public's perceptions of AES and of the impacts that these schemes may have on the 'look and feel' (including colours, layout and general perceptions of changes) of their local countryside. Piloting highlighted the need for the photomontages to include all AES changes in the same image and to minimise foreground distractions.

Participants were recruited in towns close to the landscapes in the photos using a random 'next to pass' process carried out over a range of times and locations during weekdays and weekends. To be in-scope and therefore eligible for the survey, members of the public recruited in these cities, towns and villages were required to have visited their local countryside at least once in the previous year. In total, 561 people (45%) started the online survey, although about a quarter of these dropped out during the first stages of the survey. In the final analysis, a total of 420 participants completed all questions, an overall response rate of 34%.

At its heart, the online survey presented each respondent with a 'before' and an 'after' photograph. The 'before' image was of the countryside in their local area; the 'after' image had been manipulated digitally to illustrate potential types of AES intervention, such as wildflower margins, higher hedges, restored stone walls or land given over to new tree planting. Participants were provided with a limited and unbiased outline of AES in the survey and then asked how attractive they found each landscape, which landscape they preferred and also to judge these landscape images on a range of criteria, such as for 'inspiration and creativity' or 'flood alleviation'.

Key findings were that the countryside was most important for participants for the opportunities to experience wildlife, and for their mental and physical well-being. These people placed a very high importance on the protection of wildlife. Nearly half of respondents had discerned detrimental change(s) in their local landscapes over the past five to ten years. This perceived worsening was evident across all landscape types, but was particularly noticed in the urban fringes. A large majority thought AES were a good or very good idea. More than three-quarters thought they would be better for wildlife and climate change and beneficial for people overall, with a minority feeling that AES would make the countryside less beautiful, scruffier or less accessible. These responses are perhaps connected to the views that farmers should protect the countryside for future generations (95% agreed) and that it is very important to protect the countryside from further urban development (95% agreed).

In terms of AES priorities, all options were rated highly (over 67%), with the highest being:

- carbon capture (93% high priority);
- improving the biodiversity of watercourses (93%);
- creation or management of wildlife habitats (92%);
- the creation and management of woodland (92%);
- flood alleviation (91%); and
- soil protection/management (90%).

Participants' perceptions of the overall attractiveness of their local landscapes improved slightly in response to the 'after' image they were shown, compared to ratings for the 'present' images. When asked directly whether the 'after' view was an improvement, overall 50% said it was. The perceived improvement was highest in the Eastern Arable ALT (79% improvement) and lowest in riparian contexts (35%). It was felt that this sample of countryside users would make more frequent (and more varied) visits to the countryside if it was as shown in the 'after' image example. Indeed, the majority of respondents would want a more environmentally- and wildlife-friendly landscape even if it meant a scruffier, less tidy landscape (64%), less public access (55%) and some loss of views (50%). When responding to these changes, more were willing to volunteer to help create and maintain these landscapes and to understand the purpose behind these changes to the countryside.

Qualitative Survey

The qualitative research sought a deeper understanding of people's attitudes and responses to the countryside and potentially changing landscapes. It comprised 14 focus groups and 27 video diaries with follow-up discussions across seven different areas, including all the ALTs plus one urban fringe. The sample areas were also selected to closely match the location of the local AES 'before' and 'after' visualisations developed from photos. This was so that focus group members could be shown images of landscapes that they might know as part of the discussions around change. Each area comprised two groups of six people, designated as local countryside users, of either low/medium (monthly to once a week) or medium/high (once a week to everyday) frequency. Participants were recruited locally and then checked via a detailed screening questionnaire to ensure that a mix of participants was chosen according to an agreed sample matrix.

The focus groups were shown a series of visualisations from each ALT showing examples of places 'before' an AES had been implemented and 'after' it had taken place. They included some 'wildness' images intended to understand what respondents meant by 'wild' or 'scruffy'; these are characteristics that might result from some AES options. Projective techniques were used to supplement the spoken evidence; these included participants drawing their favourite local landscape, and a collage game where they could add additional features (e.g. trees, marshy areas) to a 'baseline' image.

To a large extent the findings of the qualitative survey echo the quantitative survey, by identifying that there is a strong degree of positive consensus about the 'after' AES images shown, and that these would not impinge on participants' enjoyment of the countryside. They were also supportive of the reasons for AES in terms of the ecological impact, potential climate change mitigation and possible improvements for wildlife and biodiversity. However, those who were less frequent users of the countryside, families and some less confident participants were concerned about whether the schemes would reduce access. More frequent users felt they would get around impassable areas easily. Some changes were perceived as implying that there would be no access (e.g. riparian), whilst others seemed to increase the perception of accessibility (e.g. wild flower margins). In addition, there were concerns that certain features, such as historic landmarks or iconic landforms, might be obscured, for example, by tall hedges or

more tree planting (although most thought this unlikely). Nevertheless, many liked having structure in the landscape and did not think that AES would obscure visual patterns, because not all fields would be affected.

Riparian areas appear to be an area with higher levels of uncertainty, with respondents showing concern about the potential changes. This highlights a need to better explain flood prevention techniques to the public. Some participants did not like what they perceived to be the 'congestion' of rivers by vegetation; others had concerns about the impacts both visually and on access and safety. Once the benefits of AES actions were communicated, and where it was deemed to fit into the landscape, participants thought it would be acceptable for the measures to be more extensive. However, it is highly likely that there are limits to this. These were not explored and have implications for the more extensive aspects of AES or 'rewilding' techniques generally.

Overall, there is a theme around engagement and communication regarding the management of local countryside that would need further development and testing. Participants initially assumed the changes were being made for wildlife, with only a few spontaneously linking them to increasing carbon capture, helping with climate change or preserving the historic environment. There was an awareness among participants of peat as a carbon store, but less understanding that bogs and water also capture carbon. There was good awareness that planting trees could help sequester carbon, but not that they could help with flood alleviation.

Some participants saw these actions as 'righting the wrongs of the past', but such an approach could alienate those who are more resistant to change. Participants were keen for changes to be communicated locally, so people understood the reason for them. Certainly, participants thought there was an appetite for getting more involved if the landowner was amenable; for example, encouraging schools to help create habitats or monitor the changes over time.

Comparing public and professional views on effectiveness of AES for landscape

This section compared the findings from the quantitative and qualitative survey with the results of the 'Rapid Survey' (LUC and Rural Focus 2016), which assessed the landscape effects of Environmental Stewardship (ES) scheme options in almost 600 locations across England. Overall, the comparison identified a number of areas of agreement, but also areas where the views of the public were different from the findings of the technical assessment.

The highest agreement tended to be in lowland landscapes judged by participants to be moderately or less attractive compared to others within the sample. In these locations, findings from both the professional and public perceptions indicated AES actions resulting in noticeable improvements in the character of the landscape, such as the enhancement of margins, wild seed mixes, hedges and, in less wooded landscapes, tree planting.

There were lower levels of agreement in several circumstances. First, in examples illustrating changes to the water environment (e.g. rewetting, naturalisation, enhanced wetlands and scrapes), which were generally less well received by the public than the professional assessment. In some cases, this reflects higher levels of appreciation for the 'before' image, but it is also a product of the public's concerns about issues such as accessibility to the water, safety and excessive vegetation. Second, examples illustrating changes in upland or upland fringe landscapes were also less well regarded by the public than the professional assessment would suggest. This appears to reflect the high levels of public appreciation for the landscapes shown in the 'baseline' images and a concern about landscape change within the uplands. Third, in examples illustrating tree planting in already well-treed landscapes, which raised concerns about the loss of views and an increased sense of enclosure.

Analysis of quantitative findings suggests there is an inverse relationship between the value that people attach to the baseline landscape image and the extent to which they consider changes illustrated in the 'after' image to be an improvement. Therefore, in landscapes rated as low value, such as Eastern Arable, the AES actions are seen as improving the landscape. However, in highly rated landscapes, like Upland Fringe, the changes are not seen as being an improvement. This is despite the aim of many options to maintain, enhance or restore landscapes and deliver wider environmental benefits. This suggests a gap between the objectives of AES and the values that people attach to the more valued landscapes.

Discussion and key findings

This study has added to our understanding of the public's perceptions of landscape change and the role of AES in making the countryside more environmentally resilient. In most cases, the findings are in line with other studies, notably the broad level of support for AES being seen as having a positive impact on landscapes. The research extends the landscape analysis by including the urban fringe, and it is here that some of the most divergent findings around the potential of AES are found. These landscapes were used frequently, but they are seen as being of lower scenic value in the 'before' photos. The 'after' photo, showing the possible AES interventions, is rated more highly, suggesting that there is room for greater potential enhancement in these landscapes.

While the sample was an appropriate size for this project, it was not large enough to examine the impact of other variables such as age, social data, impact of environmental values, ethnicity and place of upbringing. There remains a very important group that were not included in this study: those who do not visit the countryside very often, but would like to. Nevertheless, this study does add to our understanding of what those who use the countryside think, and the clear message is that they are supportive of the types of changes that AES is looking to encourage.

A key aspect of this project is comparing the views of countryside users with an assessment of similar landscapes undertaken by professionals; the findings are reported in the quantitative and qualitative chapters. Overall, there would appear to be a strong level of agreement between the public and professional assessment and comments across all landscapes. Agreement is strongest in lowland landscapes rated by the public as being moderately or less attractive compared to others in the sample.

In Upland Fringe and Upland landscapes, the changes suggested by AES were rated less highly by the public compared to the professionals. It is worth remembering that the sample comprises those who live close to and use the landscapes that are represented in this study. As the baseline images were viewed as 'iconic' or 'high value', the introduction of some changes was a concern, meaning the rate for 'post AES changes' was a few percentage points lower than the before picture. Overall, however, the images were still deemed to be attractive, which suggests more explanation is required. Other changes related to water environment and tree planting also highlight the need for a greater understanding around the management of land for a range of functions that are not directly related to food production.

Overall, the comparison between the public and professional assessment of landscape change highlights the need for clear explanation and communication of some AES actions. The key areas of divergence relate to the more sensitive landscapes in the uplands and AES actions that go beyond biodiversity, where the professionals' greater understanding of these actions leads to a more positive assessment.

The approach of using standardised images with a similar scale and clarity of features was confirmed as being appropriate to meet the study's objectives.

However, most of these were associated with current AES activity, which links to supporting a range of environmental outcomes, rather than enhancing landscape per se. The qualitative survey also highlights the desire for those who access the countryside to understand more about the changes being introduced. Where effective, this will lead to better AES actions and provide benefits to nature, for example through less disturbance of wildlife. What is clear is that the public will continue to access the countryside to engage with nature and to seek tranquillity for their physical and mental wellbeing.

Conclusions and recommendations

Public perceptions of landscape change: The study fills a gap in understanding and methods assessing attitudes to landscape change among those accessing the countryside in a range of landscape types where AES actions are considered. The results confirm that among the public who use the countryside, AES interventions are seen as having positive impacts on a range of landscapes. This is strongest in urban and arable landscapes. When assessing highly regarded landscapes, such as upland and upland fringe, participants viewed changes less positively than professionals assessing the same landscapes.

Recommendation:

Consider further projects that extend the current work to assess the public's response to AES/ELMS actions beyond the current suite of interventions, to include changes relating to more radical interventions for nature recovery and climate change.

Landscape resilience: The study has also suggested that, among the participants involved, there is some understanding around the idea of 'landscape resilience'. For example, the acceptance that some change within local landscapes was needed in order to respond to environmental recovery and climate change, and a recognition that these landscapes had changed over the past decade while still containing important characteristics or key features ('anchors'). The research suggests that there would be benefits to be gained from exploring what a resilient landscape is, and how it might be managed. This would seem to be a conversation that many users of the countryside would be willing to participate in. Policymakers also need to have a greater understanding of 'landscape resilience', to be able to better communicate the importance of landscape resilience to land managers and the wider public, and to design schemes in a way that helps landscapes to become more resilient.

Recommendation:

Consider developing a project to explore and develop the concept of landscape resilience in order to inform policy and land management decisions; convey the importance of landscape resilience to land managers and the wider public; and so that it can be considered in the design of AES. (Also see p17 'Landscape objectives within AES').

AES impact and options: Given that the evidence concerning the main landscape improvements relates to the urban fringe and mainly arable landscapes, consideration might be given to how AES can be tailored for these landscapes. Previous themes within 'classic' CS have focused on farmland close to population centres in the 'Countryside around Towns' and the Community Forest initiative created woodland, much of it on local authority land. Extending AES to include the enhancement of environmental features on land managed within the urban fringe would benefit those living within those areas.

Recommendation:

Consider a review of AES options and actions with a focus on the areas around cities, towns and communities in order to benefit nature, tackle climate change and improve the attractiveness of these landscapes.

Understanding perceptions of landscape change: In order to increase our understanding of the public's perceptions regarding landscape change, we need to consider variables such as age, social data, impact of environmental values, ethnicity and place of upbringing within any sample.

Recommendation:

Consider developing future surveys regarding AES and landscape change that focus on specific groups in order to extend our understanding of occasional and specific users/non-users of the countryside.

Access to nature: To assess the potential of AES to enhance the land around areas where people live, it would be useful to explore further the physical and mental wellbeing and other benefits that the public experience when visiting the countryside, through sources such as the People and Nature Survey (PANS) and analysis of changes in behaviour following the COVID-19 pandemic.

Recommendation:

Synthesise existing sources of evidence on the health and wellbeing benefits gained from being in and experiencing nature across society, identifying existing approaches to embedding them in AES.

Landscape objectives within AES: There is considerable information available about landscape character across England, and this is supported by the findings of this report. This project has highlighted that people value the landscape, understand variations in character, its contribution to sense of place and patterns of past and present landscape change. In discussions, those surveyed are interested in and willing to contribute to a greater understanding of land management that benefits nature and increases an area's resilience to climate change. These findings suggest there is a strong case for ensuring AES deliver positive outcomes for the landscape - including through defining an overall objective and ensuring that scheme components such as options are designed with the landscape in mind. This would provide further detail and clarity around the local implementation of AES through the forthcoming Local Nature Recovery Strategies (LNRS).

Recommendation:

Ensure that AES design considers positive outcomes for landscape in terms of the overall objectives and options. Considering a range of communications regarding the intended outcomes sought through AES activity would be welcomed by countryside users, potentially through the development of LNRS.

1. Introduction

1.1 Context and aims

There is a growing body of research on public perceptions of landscapes, which has focussed on the benefits they wish to gain from their experiences in the outdoors (Research Box et al 2009 & 2011) and on their attitudes to change in the landscape (Swanwick 2009 & Rust et al 2021). 'Nature connectedness' has become a measure for policy makers and is now squarely linked to health and wellbeing strategies in England. As a result of the COVID-19 pandemic, more people have engaged with the outdoors and there is reportedly a new appreciation of landscape emerging (ONS 2023 & Smith et al 2023). At the same time there is, perhaps, a greater consciousness of climate change and the need for action to mitigate against this (EC 2020). People may be willing to adjust their travel patterns or daily life, but it is important to establish if this receptiveness to change extends to potential landscape changes that are being planned as part of the delivery of the 25 Year Environment Plan (Defra 2018).

One of the main policy mechanisms used by successive governments since the 1990s has been the offer of agri-environment schemes (AES) to farmers and land managers. AES are voluntary agreements which provide funding to farmers and land managers to farm in a way that supports biodiversity, enhances the landscape, and improves the quality of water, air and soil. In this sense they can change the way a landscape looks, and this project seeks to understand how these changes in the local landscapes are interpreted by those who visit the countryside. Given that the UK has left the Common Agricultural Policy, new schemes are being developed and the findings of this project could feed into this process. This research was tasked with building on recent work (Rust et al 2021) which explored how the public want their farmed landscapes to look, by examining the benefits and purposes they wish to receive from those landscapes. This also enabled a comparison between the views of professionals in the design and implementation of AES for farmed landscape management and the views of those who visit the countryside and their experience in those landscapes.

The aims of the project were to:

- Increase our understanding of public perceptions of the effectiveness of AES in delivering the benefits that they seek from their local landscape, in relation to the changes that have been happening through AES.
- Shed light on how the public views and perceptions compare with 'expert' opinions of the AES' effectiveness on landscape character, quality and function. The work will also provide an opportunity to 'test' the expert approach and findings with the public.
- Use these insights to provide recommendations on the future alignment of AES landscape objectives with the outcomes desired by the public.
- Provide some evidence of how important the public consider it is for a 'landscape objective' be included in AES and what that objective ought to be delivering.

2. Methodology

The research used two complementary approaches, which are explained in more detail in this section:

- 1. A quantitative survey amongst a sample of countryside users who had recent experience of their local landscapes.
- 2. A qualitative research with countryside users involving focus groups, in-depth interviews and video diaries.

2.1 The quantitative sample and methodology

During the summer of 2022, the study team carried out an online survey with members of the public in England. The purpose of the survey was to gather information about the public's perceptions of AES and of the impacts that these schemes may have on the look and feel of their local countryside. The surveys were conducted in accordance with the Market Research Society code of conduct which encompass the requirements of the UK's Data Protection Act 2018 and the General Data Protection Regulation 2016 and 2018. Defra's Survey Control Unit approved the survey forms and information sheets.

2.1.2 Survey questionnaire

The questionnaire for the online survey was developed by the study team, piloted in one of the ALTs (ALT 4, Western Mixed, in Bridgwater/Langport in the south-west region) and finally agreed with the client steering group before the start of the main survey fieldwork period. A copy of the online survey questionnaire is provided in Appendix 10.4.

Eight short online interviews were conducted for the purposes of trialling the effectiveness of the image mock-ups and deciding on the method for the questionnaire. The main conclusions from the piloting were that:

- Images containing a single change needed too much explanation and did not stand on their own. As a result, it was decided to use a single image with all the changes in combination.
- Images should be carefully cropped to ensure that the views are not dominated by unnecessary detail, such as the rough land in the foreground.

2.1.3 Survey recruitment

As part of its project brief, Natural England set out a grid of ALTs in England that this study was required to address (see Appendix 10.11). The grid included contexts other than ALTs alone – it also included the landscapes of urban fringes, riparian areas and areas of woodland. The study team then identified specific locations within each cell of the grid, chosen to represent a broad selection of English ALTs. For each location, example photographic images were identified to be representative of the countryside within these ALTs.

Having identified ALT locations, the research team then carried out a face-to-face recruitment process for a random (next-to-pass) selection of members of the public in villages, towns and cities within the chosen locations. These people were intercepted and recruited for a later online interview. Recruitment took place on weekdays and weekends in a range of locations (shopping centres and other well used areas) to ensure as broad a mix of people as possible and to ensure that the survey did not inadvertently focus on non-workers.

To be in-scope and therefore eligible for the survey, members of the public recruited in these cities, towns and villages were required to have visited their local¹ countryside at least once in the previous year. This was to ensure they had at least some direct countryside experience on which to base their perceptions and opinions. Representatives from the farming community within the same area were also recruited. A total of twenty interviews from the farming community was the target for each ALT. It is important to note, therefore, that the survey relates to a sample of **countryside users** based within or close to a carefully chosen group of English urban areas (located in or near typical landscapes of a representative selection of ALTs). Therefore, the survey does <u>not</u> represent the views of the general population in England.

The recruitment survey was carried out over a four-week period from 1st to the 31st August 2022 (see Appendix 10.2). A total of 1,253 recruited people agreed to complete the online survey and provided their email addresses so that the survey invitation could be emailed to them shortly afterwards (see Appendix 10.3). The online survey was available for them to respond to until 12th September. Not everyone completed the whole survey, despite several reminders and the opportunity to take part in a £500 prize draw.

In total, 561 people (45%) started the online survey, although about a quarter of these dropped out during the first stages of the survey, presumably because they were insufficiently interested in the subject. As shown in the appendices, the initial recruitment questionnaire refers to talking to 'local people about their use of the countryside locally'. This was felt to be the broadest entry point in which to engage people. The email invitation builds on this while the online survey starts with statement 'perceptions of agri-environment schemes'. This more precise reference to the project work might have made some of the respondents feel less able to participate in these early stages. In the final analysis, a total of 420 participants completed all questions, an overall response rate of 34%.

With a sample of this size, some care should be taken when interpreting and comparing the results for specific sub-samples of the survey, for example for individual ALTs or the farming community.

2.1.4 Survey locations

The locations for the recruitment survey are shown in Table 2.1, below, along with the corresponding ALT landscape and the sample size for each ALT. As Table 2.1 shows the target of securing at least 420 interviews, and at least 30 interviews in each ALT/scenario mix, was met, except for the Uplands ALT (27). The results are analysed in Chapter 4.

At its heart, the online survey presented each respondent with a 'before' and an 'after' photograph. The 'before' image was chosen to be a good example of the countryside in their local area; the 'after' image had been manipulated digitally to illustrate the types of intervention that could apply as a result of AES locally, using professional knowledge. For example, some 'after' photographs showed the introduction of wildflower margins, fields that had higher hedges, restored stone walls or land given over to new tree planting.

The 'after' image was shown twice, first with no descriptive text and the second with a brief text description of the observable changes. In the example 'before and after' images below (see Figures 2.1 and 2.2), the 'after' image shows more riverside vegetation, a reinstated river curve and a new shallow scrape. The descriptive text is also shown below Figure 2.2.

¹ By 'local' we mean within a drive of approximately 30 minutes.

Agricultural Landscape Type (ALT)	Survey Locations	Sample size
ALT 1, Chalk/Limestone Mixed	Thetford, East Anglia	62
ALT 2, Eastern Arable	Bedford, East Anglia	49
ALT 3, South-east Mixed	Wokingham, South East	51
ALT 4, Western Mixed	Stafford, West Midlands	37
ALT 5, Upland Fringe	Nelson/Colne, North West	34
ALT 6, Upland	Bowness/Windermere, North West	27
Urban Fringe context	Leicester, East Midlands	62
Riparian context	Bowness/Windermere, North West	43
	Battle/Hawkhurst, South East	44
	Bridgwater/Langport, South West	31
Woodland context	Stafford/Cannock, West Midlands	32
	Battle/Hawkhurst, South East	43
	Leicester, East Midlands	30
Total		545

Table 2.1: Locations in which participants were recruited for the survey

Participants in the survey were asked how attractive they found each landscape, which landscape they preferred and also to judge these landscape images on a range of criteria, such as for 'inspiration and creativity' or 'flood alleviation'.



Figure 2.1: Example 'before' image, showing a location within the existing landscape in the Battle/Hawkhurst area.



Figure 2.2: Example 'after' image from the Battle/Hawkhurst area. This image shows vegetation in the field and beside the river that has been allowed to grow up. The natural curve of the river has been reinstated. A shallow scrape has been created to provide an area for insects, which wading birds can feed on.

2.2 The qualitative sample and methodology

2.2.1 The data sample

The qualitative research sought a deeper understanding of people's attitudes and responses to the countryside and potentially changing landscapes. The methods used were similar to those adopted for the Experiencing Landscapes projects², which looked at the cultural services³ and experiential qualities that landscapes provide. These methods were updated to make use of newly available techniques such as video diaries captured on mobile phones.

The qualitative research comprised 14 focus groups and 27 video diaries with follow-up interviews ('mobile ethnography' – see 2.2.3). These were conducted across seven different areas, including all the ALTs plus one urban fringe. Six of the groups were conducted face-to-face in local venues, in sample areas which were chosen to represent a contrast of geographic location i.e. North, Midlands and South. The remaining groups were conducted online, as were the individual interviews with people who had completed video diaries. Online research became commonplace during the COVID-19 pandemic and a hybrid methodology – i.e. a mixture of both face-to-face and online data collection – was proposed at the time of project development (December 2021/January 2022). The fieldwork was conducted in August 2022 and was not subject to any COVID-19 restrictions.

The sample areas were also selected to closely match the location of the local AES 'before' and 'after' visualisations developed from photos. This was so that focus group members could be

https://www.millenniumassessment.org/documents/document.319.aspx.pdf)

² These Natural England commissioned projects sought, among other things, to understand whether such cultural services and experiential qualities correlated to particular landscape characteristics or features. See Research Box, LUC & Minter, 2009 & 2011.
³ Cultural services are the non-material benefits that people obtain from ecosystems, such as aesthetic inspiration, cultural identity, a sense of home, or spiritual experience related to the natural environment (see

shown images of landscapes that they might know as part of the discussions around change, including how the areas may alter through AES (see below for further information). Each area comprised two groups of six people, designated as local countryside users⁴: one group of medium low and low frequency countryside users (less than once a week to monthly or less but not never) and one of medium high and high frequency countryside users (once a week to everyday).

Participants were recruited by local recruiters who subscribe to the Market Research Code of Conduct and are Interviewer Quality Control Scheme trained. On-street, door-to-door and telephone recruitment was used alongside social media platforms to find participants in each ALT sample area. Respondents were then put through a detailed screening questionnaire (see Appendix 10.6) to ensure that a mix of participants was chosen according to an agreed sample matrix (see Appendix 10.7 for an overview of the final sample and Appendix 10.5 for the final sample's characteristics). This was designed to broadly match England's population, as follows:

- socio-economic group (using the ABC1C2DE method of classification);
- age (bracketed into 18-30 years, 31-45, 46-60, 60+);
- gender;
- ethnicity;
- mobility/health;
- time living in the area;
- town/village/rurally isolated (self-defined);
- reason for using the countryside; and
- frequency of visiting the countryside.

⁴ As the research focused on 'local' countryside, the researchers distinguished between countryside 'usage' and countryside 'visits', with the former conveying a more commonplace encounter with potentially well-known landscapes and the latter being more akin to tourism and possibly taking place outside one's local area.

Location of Agricultural Landscape Type (ALT)	Focus Groups	Ethnographic videos and interviews
ALT 1 Chalk and Limestone Mix	2 x Online	4
Thetford, East Anglia		
ALT 2 Eastern Arable	2 x Online	4
Bedford/Colmworth, East		
ALT 3 South East Mixed	2 x Face to	3
Battle/Hawkhurst, South	Face (F2F)	
ALT 4 Western Mixed	2 x Online	4
Stafford/Cannock, Midlands		
ALT 5 Upland Fringe	2 x Online	4
Nelson/Colne, North		
ALT 6 Upland	2 x F2F	4
Bowness/Windermere, North		
Urban Fringe	2 x F2F	4
Leicester/Soar Valley/Charnwood/Six Hills, Midlands		
Total	6 x F2F	27
	8 x Online	

Table 2.2 Breakdown of the qualitative research type and quantity by ALT

As the research was to gauge the perceptions of members of the general public, people in certain professions (such as those related to agriculture or environmental conservation) were excluded from the research (see full list of excluded professions in Appendix 10.6, Question 2). Table 2.2 shows the type of focus group (face-to-face or online) and the number of video diaries conducted in each sample area.

2.2.2 Focus groups

The focus groups followed a pre-agreed discussion guide (see Appendix 10.8) to which the Project Advisory Group had initial input. The final version was approved by the Project Advisory Group for use. Each focus group was recorded, and notes and partial transcripts were made for the purposes of analysis; full transcription was not possible within the project's budget. In the focus groups, stimulus material was used to help understand how participants reacted to AES-driven change. This comprised:

- A series of visualisations from each ALT showing examples of places 'before' an AES had been implemented and 'after' it had taken place. Further explanation on how this was done is given in Chapter 5. These are referred to as 'before and after images' in the report.
- 'Wildness' images, intended to understand what respondents meant by 'wild' or 'scruffy'; this is a characteristic that might result from some AES.
- Prioritisation lists, as shown in the discussion guide (see Appendix 10.8). These included matters such as: more woodland/trees on agricultural/pastoral/arable land; rushy/marshy grass; longer grassland, left unmown; wildflower field margins/buffer strips; wetter ditches; swales, ponds, bogs; taller, uncut hedgerows; and rivers/streams being left to take their own course.

- Projective techniques were used to supplement the spoken evidence from the focus groups and interviews. These included:
 - Drawing local landscapes on blank paper. At the start of the focus groups, participants were asked to draw their favourite local landscape or place on blank paper. This acted as an ice-breaker activity, as well as encouraging people to be creative in the rest of the session. These drawings are useful in enabling people to think about landscapes and the components of landscapes that they value.
 - A collage game, taking place at the end of the discussion. For the online groups, this involved adding visual examples of potential AES changes digitally, such as a marshy patch or a line of trees, into a baseline image. The baseline images used were sometimes a 'before' image from an ALT and sometimes an unconnected generic image. For the in-person focus groups, participants drew in pairs into the baseline image which was on paper.
 - A drawing game. Taking place at the end of the discussion, this involved adding aspects from the list in the discussion guide of potential AES changes into a baseline image. The baseline images used were sometimes a 'before' image from an ALT and sometimes an unconnected generic image. The following list was used:
 - more woodland/trees on agricultural/pastoral/arable land;
 - rushy/marshy grass;
 - longer grassland, left unmown;
 - wildflower field margins/buffer strips;
 - wetter ditches;
 - swales, ponds, bogs;
 - taller, uncut hedgerows; and
 - rivers/stream being left to take their own course.

2.2.3 Video diaries

The second qualitative method used was in the form of video diaries with a follow-up interview, sometimes called 'mobile ethnography'⁵. In total, 27 participants completed video diaries for the project, four per ALT or urban fringe area (one participant from the Battle area withdrew and was unable to be replaced). Recruitment was undertaken via a screening questionnaire which considered a range of demographic factors, as for the focus groups. Participants were also asked to fill out a consent form for their videos to be used in the research. The final samples of participants for each of the qualitative methods used in the research is shown in Appendix 10.7.

The ethnographic diaries⁶ are intended to show how participants experience their local landscape without any interventions from a member of the research team. Participants were given a short brief, then asked to undertake and film a self-led walk or cycle ride in their local countryside, either on their own or with family. The completed videos were sent to the research team, who viewed each prior to a short online interview with the participant. These interviews were open-ended, and the questions asked depended mainly on the content of the video; for example, if the participant

⁵ Mobile ethnography in market research is defined as: "an innovative market research technique that combines traditional ethnography with mobile research. Ethnography in market research involves observing consumers in a natural environment, allowing you to gain a reliable understanding of their behaviour, values, and beliefs." (<u>https://www.driveresearch.com/market-research-company-blog/what-is-mobile-ethnography</u>)

⁶ An ethnographic approach aims to study particular phenomena from an individual's point of view, and to explore the similarities and differences between these perspectives.

had shown something they thought was particularly beautiful they were asked to explain this further. If there was time remaining, participants also completed a collage game (21/27 completed this task). This was the same as the ones used in the focus groups and completed during the online interview.

The focus groups and video diary interviews were analysed together using 'grounded theory' approaches. This entails:

- developing and testing hypotheses within moderated groups;
- content analysis of recordings and transcripts;
- triangulation of concepts across demographics and attitude types; and
- developing conclusions, models of thinking and practical insight from the emergent patterns.

Verbatim quotes are given in the report to illustrate and evidence the discussion. Unless otherwise stated, all quotes are from the focus groups; those from the video diaries are indicated by 'VD'.

3. Literature review

3.1 Overview

The literature review was conducted as a Rapid Evidence Assessment (REA) using a systematic approach developed by Mills et al (2021) to identify existing evidence and ensure an informed approach to the survey design. The REA assessed a wide range of material through a number of search engines and organisational repositories with agreed search terms and criteria (see Appendix 10.1). This included reviewing research papers and grey literature sources to assess the existing evidence on the impact of AES on landscape and the methods and outcomes of previous research into public attitudes to landscape and landscape change.

This chapter presents the summary findings of the literature review, followed by the detailed review of relevant literature against the three research questions:

- What are the effects of AES on the landscape?
- What evidence is there regarding public attitudes to landscape and landscape change?
- Which methodological approaches are most effective at measuring public engagement around landscape and landscape change?

Some literature sources have been reviewed under more than one research question. Crossreferences are noted in the text where this occurs.

3.1.2. Summary

Key findings:

- There is an extensive suite of research into the landscape impact of AES which provides a robust and comprehensive baseline against which public attitudes to landscape can be compared.
- Research into the landscape impacts of AES generally found that AES has a positive impact on landscape character, although the degree of the impact is affected by several factors including the landscape type, levels of AES uptake and the specific AES options implemented.
- Existing studies into the impact of AES on landscape have not focused on urban fringe areas, although some of the studies have incidentally included urban fringe locations.
- Research into attitudes to landscape has shown that people value 'cultural' aspects of the landscape, such as access, views and tranquillity.
- Research shows consistently that individuals' unique characteristics, such as age, social and economic status, environmental orientations, ethnic origin and place of upbringing and residence have a significant influence over their cognitive and emotional perceptions of landscape.
- Despite several existing studies on what people value in landscapes, research examining the public's attitudes towards changes in the landscape remains

limited. Studies that included a public element are either geographically specific or not landscape specific.

- Existing studies into people's perceptions on landscape focused on the attitudes of farmers and landowners/managers, rather than the public.
- Of the studies reviewed, there is good evidence to show that people were very willing to participate in surveys using a manipulated base photo with computer generated changes, or with a photomontage approach, and they found it easy to comment on the changes illustrated.
- Several studies have informed the survey and visualization design for this current research, such as standardisation of base features and scale, clarity of additional features in the photos, and formatting considerations for the surveys.

In conclusion, the literature review has highlighted some limitations in the existing published research on the wider public's attitudes to landscape change which this project aims to address. This project decided to utilise tried and tested methods of examining public engagement with landscapes by using photomontages and survey methods to engage with a wide range of people across England.

3.2 Research Question 1

Review studies into the effects of AES on the landscape that:

i. cover site-based assessment of the effects of scheme options on the landscape;

ii. provide a technical benchmark against which public attitudes will be compared; and

iii. provide sample squares close to urban areas.

BD5303: Cumulative impact of Environmental Stewardship on landscape character (2013), DEFRA

This study developed a sampling framework that allows the landscape effects of AES to be assessed from the national to the local level. It developed rapid, consistent, repeatable and rigorous methods for assessing the landscape effects of Environmental Stewardship (ES) and subsequent AES, across 18 different survey locations (each comprising four to five survey squares). This detailed survey method laid down a baseline and explored the different landscape effects of ES in the field.

The information collected through these different forms of analyses provides the most comprehensive evidence to date on the landscape effects of AES and particularly ES. The study confirmed that ES is meeting the objective of maintaining and enhancing landscape character and quality. The study identified that the location of options can be very influential in defining their impact on the landscape, both strategically and at the local scale. Arable options are particularly influential. In the right location these can significantly enhance the landscape - for example, helping to define the boundary of large-scale field systems. However, in the wrong location, they can detract from the landscape, as when placed in blocks randomly imposed on the established field structure.

The study includes several sample squares on the Oldham fringe, an urban fringe landscape within National Character Area (NCA) 54: Manchester Pennine Fringe (Upland Fringe Agricultural Landscape Types (ALTs)). Although ES was primarily found to have a strongly positive or positive impact on landscape character, the effect of ES in urban fringe areas was found to be neutral.

LM0456: Monitoring the impact of Environmental Stewardship (ES) on Landscape Character and Quality (2016), DEFRA

This project analysed the impact of Environmental Stewardship options on the character and quality of the landscape, using the Rapid Survey sampling method developed in the previous study (BD5303). The study sampled 596 survey sites (comprising one-kilometre squares) in a range of different agricultural landscapes across England.

The project results showed that, overall, the majority of options assessed in the field were found to be conserving or enhancing landscape character by protecting, restoring or creating important landscape features. As a result, ES was found to be meeting the objective of maintaining and enhancing landscape character. The survey was designed to include a wide range of AES options and landscape features across a number of landscape 'themes' (linking to those developed as part of LM0429). The project results and photographs were compiled into a database, which enables the user to search the results by ALT, NCA, landscape theme and AES option.

Urban NCAs were excluded from the assessment. However, some of the survey squares were located close to urban areas including Southampton, Rotherham and Slough.

LM0429: Developing Indicators and Thresholds for Monitoring the Landscape Impacts of Environmental Stewardship at the National Character Area Scale (2013), DEFRA

The Indicators and Thresholds project used a data-led approach to evaluate the landscape effects of AES at the NCA level, using a methodology devised during the BD5303 project (summarised above). Relevant landscape themes and objectives were chosen for each NCA based on the key landscape characteristics of the NCA. The results of the project found that AES was having a strongly positive or positive impact on the landscape in the majority (77%) of NCAs. The results can also be analysed by ALT or landscape theme.

This study did not include site-based analysis of the landscape impacts of AES but was informed by the findings of the concurrent BD5303 study. The data-driven study was rolled out across all NCAs (except those classified as 'urban'), including some noted as having 'urban fringe' key characteristics.

LM0483: Monitoring the impacts of AES on landscape character, quality and resilience (2019), DEFRA

The method developed as part of study LM0429 was repeated in 2019 using data from 2018. The report found that AES uptake had decreased in many NCAs and was often less than the defined threshold. The results of this update found that AES was having a strongly positive or positive impact on the landscape in 60% of NCAs. A new landscape theme, 'water management', was introduced for this study. The results can be analysed by ALT or landscape theme.

As with contract LM0429, this study did not involve site-based analysis of the impact of AES options on the landscape. Instead, it used a data driven approach and assumptions from the related site-based work in the related projects to infer landscape impacts based on the decline in AES uptake between 2013 and 2018.

3.3 Research Question 2

Evaluate previous research into public attitudes to landscape and landscape change to identify:

- i. studies examining attitudes to farming and woodland landscapes, and to change affecting those landscapes;
- ii. public attitudes to landscape change; and
- iii. information on public attitudes to landscape.

Mills et al (2021) Developing Farm-Level Social Indicators for Agri-Environment Schemes: A Focus on the Agents of Change.

This was a literature review to inform the development of social indicators to measure the level of farmers' engagement with their AES agreement and the social sustainability outcomes from participation.

The paper identified:

- indicators that measured the quality of AES engagement based on farmers' willingness and ability to engage with a scheme and their level of connectedness with others; and
- social indicators that measured the impacts of AES engagement on the farmers' quality of life, health and wellbeing.

The study found that various factors influenced farmers' willingness to engage – their attitudes and beliefs about farming (self-identity), engagement with advice and training, and their level of AES experience. The study also highlighted that farmers' interest in (and awareness of) the environment, which encompassed wider landscape and cultural assets such as historic buildings, field and farm boundaries, and archaeology, determined their eagerness to engage. There were also differences in the capacity of landowners to engage.

The paper identified a lack of attention to the social aspects of AES monitoring and evaluation to date. This has meant that social indicators have not been conceptualised (and put into action) as much as environmental and economic indicators. It stated that there was 'growing recognition that without more explicit consideration of the farmers involved in land management as agents of change, the required environmental improvements will not be achieved' (Mills et al., 2021).

Swanwick (2009) Society's attitudes to and preferences for land and landscape

Discussion paper about the attitudes of the public and use of land by society. The paper outlined that:

- Attitudes and preferences concerning land have traditionally been dominated by expert or professional views, rather than those of the wider public.
- Attitudes are reflected in behaviour: notably, patterns of consumption through recreational activity, as well as in expressed preferences.
- Attitudes are shaped by several different factors, especially age, social and economic status, ethnic origin, familiarity, place of upbringing and perhaps most importantly, environmental value orientations.
- Residency, particularly whether urban or rural, shaped public attitudes.

The paper notes that there is currently an apparent polarization in society. At one end of the scale is older, affluent, better educated, more environmentally conscious people, often in social grades AB (higher managerial and professional occupations), and at the other end of the scale are younger aged people, ethnic minorities, and those in the DE social grades (semi-skilled and unskilled manual occupations and unemployed). These groups, and those between the extremes, have very different values and attitudes.

Gobster et al (2007) The shared landscape: What does aesthetics have to do with ecology?

This research discusses how landscape patterns elicit aesthetic responses (e.g. how a landscape is perceived by a person) of immediate pleasure or displeasure and how this can be used as a starting point for formulating actions to affect landscape change.

The author suggests that 'future landscape patterns, human experiences and actions can be devised to create landscapes of all types that are ecologically beneficial and simultaneously elicit aesthetic pleasure'. However, they also discuss the disjuncture between ecology and landscape – specifically, functional ecological processes and human perception of a pleasing landscape appearance may be misaligned in some cases. This has the potential to encourage ecologically damaging landscape change. This study also discusses enhancing people's ecological knowledge.

The research discusses how different landscape types (wild, agricultural, cultural, and metropolitan landscapes) and the effects of different personal-social situational activities or concerns are valid variables. It also notes that despite environmental and human events occurring at widely differing scales, human engagement with environmental events occur at a certain scale, that of human experience with surrounding landscapes. Known as the "*perceptible realm*" (*Gobster et al., 2017*), this is the most important scale at which landscapes are perceived and at which humans intentionally change landscapes.

Berit and Buchecker (2008) Aesthetic preferences versus ecological objectives in river restorations.

Different computer-generated photo edits of scenarios of river restoration were shown in conjunction with a survey. The written survey was based on two previous case studies of Swiss rivers, was sent to a random representative sample, and the collected data was analysed using Statistical Package for the Social Science (SPSS). A Likert scale was used to assess "aesthetic preference", "perceived naturalness "and "perceived satisfaction of needs". Aesthetic preferences were then compared to eco-morphological quality (the ecological role of a being and its morphological adaptations). Scenarios compared river restoration alongside access infrastructure and river restoration and no access infrastructure. The study concluded that for a river restoration scenario, the naturalness of the visualisation (as perceived by the public) appears to influence the aesthetic appeal positively, implying that people enjoy most what appears natural to them in this context. There was a strong positive relationship in this study between ecological quality and aesthetic preferences.

Cusworth and Dodsworth (2021) Using the 'good farmer' concept to explore agricultural attitudes to the provision of public goods. A case study of participants in an English agrienvironment scheme

This was a qualitative study into views of farmers towards the transition to the public goods model of subsidisation. It discussed the perception of farmers that AES did not look neat and so were at odds with the notion of being a "good farmer", thus were culturally unattractive for the farming community. The research was based on 65 in-depth semi-structured interviews with 40 different interviewees (25 of the 40 gave a repeat interview 1 year after the

initial interview). The interview sample was heterogenous with arable, mixed and livestock units all represented.

The farmers interviewed generally perceived the provision of public goods as positive, providing that the money they received was sufficient to support a viable business. The majority of the discussion related to the provision of environmental public goods. Access to natural areas for recreation and the preservation of cultural heritage was also discussed but to a lesser extent. Willingness to participate in AES was linked with the level of remuneration proposed.

ADAS/University of Leeds (2017) New Agricultural Landscapes: 44 Years of Change. Farmer Survey

A continuation of a longitudinal study started in 1972 which captures the attitudes of farmers to past landscape changes and perceptions of future changes, linked to context and drivers of change. Semi-structured interviews were conducted with four farmers within the 10 New Agricultural Landscape study areas across England (a total of 40 interviews).

The study found that: 'In summary, farmers' attitudes and perceptions of landscapes and landscape change will be framed by:

- I. Intrinsic factors of the farmer that determine their attitudes to the landscape,
- II. External factors that structure their views of and decision-making in relation to the landscape, and
- III. Farm business factors that determine their ability to make decisions and implement practices that impact on landscape quality.'

LUC/Small Town & Rural Development Group (2005) Cairngorms National Park: Landscape Change scenarios: Final report.

Public likes and dislikes were captured in relation to illustrated landscape change. The study showed that the public have a high appreciation of the landscape. Responses suggested a general resistance to landscape change.

Comments were not limited to landscape, but also to other environmental issues, such as biodiversity, access or recreation or the indirect socio-economic effects of the given change.

Comments suggested strong support for maintaining or increasing the perceived naturalness of the landscape, including its biodiversity. Responses to woodland creation varied, depending on the phase of woodland expansion shown – indicating that communication around the aims and objectives of projects should be undertaken if the work is to be done under AES.

NE0109: Social Research Evidence Review to Inform Natural Environment Policy ((2011), DEFRA

Stage 1 of this report undertook a review of social science evidence as a scoping exercise for stage 2.

Stage 2 conducted three in-depth evidence reviews. The first of these was "Public perceptions of Landscapes and Ecosystems in the UK" which summarized social research evidence, focusing on what people value from landscapes and how these values might be affected by future change.

Visiting the countryside is considered by the majority to be "crucial" or "very important". The research found that people value landscapes for their intrinsic value and cultural services. This may be an emotional or rational response. Individuals differ in their demographic, situation and awareness and these factors influence their perception of landscape. Despite these individual differences, broad trends could be identified.

The authors tentatively identified broad preferences for certain landscape and ecosystems types:

- the coast;
- mountains and hills, water, rivers and streams, woodlands, and rural villages;
- field systems, hedgerows and field walls, and country lanes; and
- bogs, marshes and moorland.

There is diversity in the value people put on landscape – such as a sense of place, abundant wildlife, easy access and relative tranquillity.

The report explained that people access landscapes for different purposes and at different times. See Experiencing Landscapes (2019) project summary below, which refers to a "portfolio of places" particular to each person. The majority of visits are close to home. Place attachment occurs – where meanings or emotions are associated with a location by groups or individuals. This theory provides a useful background to explain why there is sometimes resistance to change.

Howley et al (2012) Exploring public preferences for traditional farming landscapes

A survey of 430 members of the public living in Ireland was conducted in the summer of 2010. The paper examined visual preferences towards farming landscapes. The main findings were that:

- individuals rated agricultural landscapes in terms of beauty quite highly;
- given a choice, individuals prefer traditional over more intensive farming landscapes;
- age, gender and place of residence significantly affect visual preferences; and
- environmental values were found to have a significant effect on visual preferences.

King and Martin (2021) Exploring Public Recognition and Perceived Cultural Value of the Special Qualities within English Areas of Outstanding Natural Beauty

This study used a questionnaire to discern whether the public recognised the special qualities of AONBs. Survey respondents were asked several questions in relation to their views on the agricultural sector and the environment in general, before being asked to indicate how well they rated 16 landscape images. When presented with the set of landscape images, respondents were asked to rate them on a scale of 1 to 6. With 1 being '*not very highly*' and 6 being '*very highly*'.

The findings noted that the public value landscape heterogeneity. Special qualities of the protected landscapes which were perceived as having the highest value by the public were often related to cultural ecosystem services, such as access, views and tranquility.

The study did not include specific analysis on public attitudes to landscape change.

Moore and Tully (2017) Connecting landscapes: examining and enhancing the relationship between stakeholder values and cultural landscape management in England Note: This report is also referenced within Question 3.

The results of the study show that stakeholders recognise (and desire) that the landscapes which form the focus of the study include social and cultural 'services' and are not limited to the 'natural' environment or economic metrics. The paper does not include specific analysis of attitudes to landscape changes, but includes the statement that 'Some emphasised notions of 'preservation' (protecting heritage; maintaining wildlife), yet many implicitly recognised the contradictions in sustainability; that landscapes are, by their very nature, dynamic (Antrop, 2006).'

BE0141: Citizen engagement on the environment (2021), DEFRA

Note: This report is also referenced within Question 3.

This study aimed to collect a vast amount of data from a diverse range of citizens on environmental attitudes, values, and priorities. Data was collected following a mixed method approach, incorporating the following aspects: In-depth interviews, self-reflection, focus groups, pre and post questionnaires, and data monitoring.

While 'environment' is not always equivalent to 'landscape', the results of the study did provide some insight into public attitude to landscapes. Respondents mentioned that they valued natural landscapes for the sense of freedom, discovery and restoration that they provide. The report did also note that the public's environmental attitudes are influenced by deeply rooted values and beliefs, which are varied across the population.

Research Box (2022) Visualising new tree and woodland opportunities: Forestry Commission

This study used six online focus groups, three in-person creative sessions and nine ethnographic videos and associated interviews to examine the attitudes of the public to existing woodland and tree planting in three different study areas. Several techniques were used to engage the participants. This included using images with photomontages, stills and visualisations for order ranking, as a basis for hand-drawn or computer modelled collage creation or drawing games depicting tree planting of different types on the base landscape.

Stark changes in landscape such as felling elicited negative and emotive responses. The authors noted that "Perceptions of tree planting can be very positive, particularly where old heritage industrial sites are regenerated (National Forest, Durham) or where ancient woods are being restored."

It was noted that several of the changes illustrated on the base images were not very easy for the participants to perceive, and they did not notice rewilding, the extension of existing woodlands, and small plantations when these changes were illustrated.

Cotswolds AONB (2019), Cotswolds@50/Future Landscapes

This project, described under Research Q3, held four community workshops which were seeking views from a range of interested parties in the Cotswolds Area of Outstanding Natural Beauty (AONB) on potential landscape changes and their impact by 2040. The aim was to engage local communities in creating a vision for the future Cotswolds using three scenarios. The preference across the workshops was for a mix of the 'localism' and 'enhanced protection/conservation' scenarios that were used. There was support for local energy generation, as well as some tree and woodland expansion. Financial incentives, such as AES, were seen as a key part of the delivery when implemented with more localised decision making.

NECR024: Experiencing Landscapes: Capturing the 'cultural services' and experiential qualities of landscape (2009), Natural England

Natural England commissioned extensive qualitative social research to provide baseline evidence of the cultural services and experiential qualities that landscapes provide, focusing on eight National Character Areas across England. It is generally recognised that England's landscapes provide a range of 'services' which contribute to people's quality of life, including spiritual enrichment, cognitive development, reflection, recreation and aesthetic enjoyment. The range of cultural services and experiential qualities provided by landscapes were explored, including how and why the public values them. The project conducted a review of existing evidence and an assessment of methodologies.

To undertake the qualitative research, focus groups, extended creativity sessions and postexperience in-depth interviews were used to capture data on the value of landscapes and the cultural services/experiential qualities. Landscape value to groups with different perspectives and demographic factors were explored. People often had a portfolio of places they would access for different types of experience, including somewhere nearby and easily accessible (such as a local park or riverbank), and somewhere a bit further away but more varied (often a place with a combination of features, such as woodland, fields and a river).

A central finding is that the study confirmed many long-held views on the importance of landscape to people and the wide range of services and benefits provided. Landscapes provide a wide range of interlinked cultural services, valued for their contribution to human wellbeing and quality of life.

NECR045: Experiencing Landscapes: Towards a judgement-making framework for 'cultural services' and 'experiential qualities. (2011), Natural England

The project aimed to extend and build upon the findings of NECR024 to investigate the cultural services derived from different NCAs across England. This used a similar methodology to gather qualitative data and also included focus groups, extended creativity sessions and post-experience in-depth interviews.

This second phase of the study captured and presented a range of experiential benefits and cultural services that landscapes provide to people in six additional NCAs and synthesised the analysis and findings with the conclusions from Phase 1. This confirmed the range of cultural services and experiential qualities provided across a range of landscape typologies. The research concluded that *'all landscapes matter, even if unremarkable'* although attachment is stronger in distinctive landscapes. Landscape is also complex, more than the sum of its parts, and delivers a range of cultural services.

Rust et al (2021) What does the UK public want farmland to look like?

This study explored several questions on the aesthetics of environmental measures on farms, and what "environmentally friendly" looks like to the public. The methods used are described in the following section. The approach provided a national impression of favoured landscapes with some attention to local variations, gained through the use of local workshops. In these preferences were shown for particular landscapes combinations and it was felt these reflected local heterogeneity. Overall there was support for landscapes which improved biodiversity, such as for pollinators and increased tree cover, but not containing larger predators. The national survey showed awareness of the multi-functional nature of farmed landscapes. The project also highlighted that demographics have a complex role in the area of landscape preferences with factors such as education and disposable income also influencing awareness and preferences.

3.4 Research Question 3

Identify methodological approaches to public engagement around landscape and landscape change, including:

i. the relative benefits of using realistic, but modified photomontages;

ii. illustrative sketches and less realistic, though immersive, CGI type approaches; and iii. approaches to sample selection to inform survey design.

King and Martin (2021) Exploring Public Recognition and Perceived Cultural Value of the Special Qualities within English Areas of Outstanding Natural Beauty

AONB landscapes have 'special qualities' (SQs) which are those aspects of the areas' natural beauty, wildlife and cultural heritage which make the area distinctive and are valuable, particularly at a national scale. This study used a multi-modal approach, including an online questionnaire which included the presentation of photographs (although these were not modified photomontages) to provide information on the level to which SQ's reflect public preferences and values within landscapes.

Results from the study indicate that when participants were presented with the same landscape image there were discrepancies as to what was perceived as '*special*'. There was also a general preference towards a heterogenous landscape, indicating that when considered in isolation, no one SQ could be more crucial than another.

NECR024: Experiencing Landscapes: Capturing the 'cultural services' and experiential qualities of landscape. (2009), Natural England

Note: This report is also referenced within Question 2.

This project undertook an extensive programme of qualitative research using a variety of survey methods including focus groups, extended creativity groups and in-depth interviews/discussions. A sample of demographics targeted an equal mix of socio-economic groupings and gender across the eight locations the project focused on, with a mixture of people living in the area, working or using the area.

Moore and Tully (2017) Connecting landscapes: examining and enhancing the relationship between stakeholder values and cultural landscape management in England

Note: This report is also referenced within Question 2.

This study involved qualitative and quantitative stakeholder studies to explore how stakeholders perceived and valued the cultural landscape of two specific sites in the Cotswolds AONB. Methods included perception mapping (asking participants to draw the boundary of their definition of the cultural landscape(s)) and to annotate this with values/activities/opinions, semi-structured interviews and online surveys. Photographic/computer-generated imagery approaches were not used.

The interviews and focus groups focused on 57 targeted stakeholders (who directly engage in the landscape, rather than visitors), aiming to include as broad a demographic as possible. The stakeholders selected in this study were chosen as "landowners, farmers, residents, and members of professional organisations: e.g., AONB; Natural England) who most directly engage in these landscapes, as opposed to those (e.g., visitors) with more external perceptions, partly as the latter have been the subject of other surveys".

BE0141: Citizen engagement on the environment (2021), DEFRA Note: This report is also referenced within Question 2.

The study collected data by a mixed method approach, incorporating the following aspects: In depth interviews, self-reflection, focus groups, pre and post questionnaires, and data monitoring. The study also included 'Distributed Dialogues' and 'Public Dialogues'. 'Distributed Dialogues' which was an innovative approach to engage with many people through educational and practical activities at existing events to collect data about participants' perceptions of the environment. The 'Public Dialogue' events were more targeted and comprised workshops that were specially recruited for.

LUC & Small Town and Rural Development Group (2005) Cairngorms National Park Landscape Change Scenarios: Final Report and Proposals for Pilot Study ,Report to Cairngorms National Park Authority.

Note: This report is also referenced within Question 2.

The report explored the advantages and disadvantages of different techniques used to represent landscape change such as:

- sketches and hand drawn images;
- computer generated images; and
- photographic manipulation.

It also discussed whether to use views or maps, aerial photos, static images or videos. Public attitudes towards landscape change, and the advantages and disadvantages of different techniques of engagement were explored. Techniques of engagement included postal surveys, telephone interviews, face-to-face interviews, focus groups, photo elicitation and exhibitions.

Panoramic photos were taken of views representing different landscape character types in the Cairngorms. Panoramas were produced to create a sampled image. This was shown during street surveys and focus group discussions. People were very willing to participate and found it easy to comment on the changes illustrated.

LUC, Small Town and Rural Development Group & University of Sheffield (2006) Landscape Change Scenarios. Ayrshire Pilot Study. Final Report.

Public likes and dislikes were captured in relation to illustrated landscape changes.

The most appropriate scale to consider public perceptions was explored, as well as what visualization techniques to use to illustrate the changes and different techniques to actively engage the public. The landscape changes included renewable energy infrastructure, agricultural cropping, field boundaries, farm woodlands and forestry, mineral extraction and housing development.

Cloning and masking techniques were used to prepare images and image construction was discussed in detail. Digitally manipulated baseline photos showing landscape changes were shown in a face-to-face public survey and focus groups. Base photos followed by digitally manipulated photos were shown as a comparison. The report concluded that the visualisations produced were very realistic and successful. People understood what the photographs were showing and were able to identify changes, even the more subtle ones. People were willing and interested in engaging with the survey process. It was concluded that it was important to use local landscape examples.

The survey concluded that positive responses were associated with field boundary enhancements and, in some cases, smaller windfarm development, afforestation and biomass cropping.

Rust et al (2021) What does the UK public want farmland to look like?

This study explored several questions on the aesthetics of environmental measures on farms, and what "environmentally friendly" looks like to the public.

Ten realistic images were manipulated to layer specific landscape components on a master image. Images were based on a standardized field foreground and sky backdrop. As far as possible, perspective, weather, and topography were kept consistent in the images so respondents could focus on the variable components of the landscape. Additional features were then photoshopped on to represent the features in the survey such as livestock and wind turbines.

To select the features shown, a database of images was used and the most frequent images that represented key components of the diverse UK agricultural landscapes were selected. The images included landscape features such as crops, wildlife, agroforestry, and renewable energy installations. A survey was drafted and piloted, and the readability of questions checked. Then 2050 surveys were completed nationally on panels representative of the UK demographic. In addition to the modified photos, a smaller survey group in North-East England were given tools to construct a collage of what they wanted their ideal UK landscape to look like. Participants had an affinity for landscapes that either focused on "*agricultural or wild biological diversity*". However, outputs of the collage session were all visual, so they were difficult to interpret and compare quantitatively. The study highlighted the importance of collecting socio-demographic data due to influence these variables had on participants' aesthetic preferences.

Sheppard et al (2011) Future Visioning of local Climate Change

Phase 1 of this project developed a conceptual framework of the visioning process by drawing on available data. Models and best practices were developed using local knowledge and multidisciplinary expertise, through workshops with scientists, practitioners and community stakeholders. Products include visioning material for each community or neighbourhood, illustrating different adaptation and mitigation strategies. Visualization media was considered – 2D photorealistic tools like Photoshop or 3D tools like ArcSCENE, Google Earth and SketchUp. When combined with future scenarios, these 3D images became 4D visualisations of future scenarios. The authors asserted that the preparation of imagery should follow a standard process with agreed decision-rules to ensure defensibility. Input was sought during the process from local working groups on representative locations for viewpoints, themes and local conditions to be shown. Visualisations consisted of a standardized base photo with computer generated additions to represent different climate change scenarios.

In Phase 2, the visioning packages were then shown to a range of audiences in a variety of settings for discussion, learning and comment. Visualisations were shown to 100 participants locally in the community. Evaluation methods on the effectiveness of the process and any change in attitudes towards different climate change scenarios was undertaken using questionnaires, written comments, participant observations and post-workshop interviews. The credibility of the visualization tools and effectiveness of the visioning process was rated generally as high. Some participants made recommendations for enhanced or additional products. Awareness of local climate change impacts, and of the types of response options to mitigate climate change, increased significantly following the workshops, as well as people's stated motivation to act to prevent climate change. This was accredited to the impactful visuals used.

Shepherd (2001) Guidance for crystal ball gazers: developing a code of ethics for landscape visualisation

This paper discussed influences on the preparation of visualisations in the real world including content choices, viewpoint location and conditions of lighting, weather and season and the importance of the context in which visualisations are produced. It set out several general principles that are relevant to this report:

- Accuracy: Realistic visualisations should simulate the actual or expected appearance of the landscape as closely as possible (at least for those aspects of the landscape being considered).
- Representativeness: Visualisations should represent the typical or important range of views, conditions and timeframes in the landscape which would be experienced with the actual project and provide viewers with a choice of viewing conditions.
- Visual clarity: Details, components and the overall content of the visualisation should be clearly communicated.
- Interest: The visualisation should engage and hold the interest of the audience without seeking to entertain or dazzle the audience.
- Legitimacy: The visualisation should be defensible through making the simulation process and assumptions transparent to the viewer.

Grammatikopoulou et al (2021) Heterogeneous preferences for agricultural landscape improvements in Southern Finland

This case study focused on an urban fringe area in an agricultural landscape in Finland. A questionnaire survey was mailed to all households in the postal area that overlapped the study area. 2,172 households were contacted (both landowners and non-landowners), of which 630 responded.

Attributes to consult on were selected by conducting a literature review on what might be relevant features having a positive effect on scenic beauty. These options were further refined and developed by expert consultation and a field trip and discussions with local officials. The attributes selected were:

- proportion of uncultivated land;
- number of plant species;
- presence of grazing animals;
- management and condition of water buffer zones; and
- the state of production buildings.

A pilot study then tested the questionnaire, the attributes and their levels. Respondents were made aware that they were answering the questions based on a hypothetical voluntary landscape value trade scheme, which would fund any potential change. The results indicated that the general Finnish public would be more willing to pay for grazing horses and cattle and renovation of buildings and least willing to pay for the removal of buildings or uncultivated land.

The report concluded that when taking landscape preferences into account, it is important to recognize that citizens are unlikely to be a homogeneous group. Rather, they are a collection of individuals with different, and sometimes contradictory, landscape preferences for landscape preservation or improvements.

BD5303: Monitoring the effects of Environmental Stewardship on Landscape Character and Quality: 5. Report of Findings: Public Engagement (2013), DEFRA

The aim of this study was to 'assess whether the ES options selected in an area support the maintenance and enhancement of landscape elements and landscape character that communities recognise and value'. The first stage involved a literature review of methods and research on how local communities perceive their local landscapes and changes occurring within it. This provided evidence that visual research techniques would help people to understand and engage with the approach better than a heavy text-based approach. It also concluded that a 'choice experiment approach' could yield appropriate results and therefore the methodology combined these two elements. Engagement with the public was done by a voluntary online survey and face-to-face interviews; the very low take-up of the on-line survey prompted the suggestion that 'street surveys combined with online surveys would be an appropriate method for this consultation'.

Berit and Buchecker (2007) Aesthetic preferences versus ecological objectives in river restorations.

Note: This report is also referenced within Question 2.

This study investigated public perceptions on the aesthetic attractiveness of different restoration scenarios. A written survey was sent to a random representative sample throughout Switzerland (with 28.7% take-up of the survey). Survey respondents' views on the two scenarios was impacted by the presence of different vegetation cover meaning that perceptions of naturalness impacted the overall view of the infrastructure. This affected the results significantly in terms of aesthetics compared to a control, where only in-channel changes were shown, meaning that the framing of the photo is important. The paper also found that satisfaction in terms of recreational and leisure activities compared to visual attractiveness, could be better calculated by 'video-based experiments' and 'verbally formulated quality criteria'.

NECR180: Econets, landscape & people: Integrating people's values and cultural ecosystem services into the design of ecological networks and other landscape change proposals (2015), Natural England

This study explored effective ways of capturing public perceptions of landscape change, aesthetic and cultural values, and the ways and benefits of using this information when planning and designing ecological networks. This research was specifically on 'econets' - ecological networks. AES options would constitute an econet locally. Four methodologies were tested: a focus group workshop; research held during a community event; a face-to-face interview survey; and a self-completion interview survey. No photographic representations were used.

The report recommended that the following methods are used (together or in alone) in any future studies of cultural values and public perceptions of econets:

- 'a methodology which combines quantitative and qualitative research
- mapping exercises
- interactive tools (interactive GIS and maps, satellite GPS, tablets or smartphones)
- online tools (Google map/earth, ESRI, ArcGIS Online)
- dedicated server (web-based interface, database, wiki)
- face-to-face interviews with local residents, visitor surveys and other questionnaires for data gathering
- community events for dissemination, raising awareness and capacity building
- workshops for in-depth discussion with local residents
- participatory econet design with both experts and citizens
- engagement of all actors for inclusive interdisciplinary econet planning.'

Stange et al (2021) Public perceptions of ecological restoration within the context of Norwegian landscape management

This was an internet survey assessing public perceptions of the purpose and goals of ecological restoration, together with preferences for different landscape types common in Norway. Respondents were drawn from a Gallup panel for Norway. Survey invitations were sent to 7,000 individuals and 4,077 completed online surveys were received back. No primer text was included on any of the topics. A Likert scale ('completely agree' to 'completely disagree') was used to collate responses to different statements about nature restoration. Survey respondents marked agricultural landscapes as the most desirable, and there was also a balance between promoting landscapes void of human influence and those deemed to be cultural landscapes.

Cotswolds AONB (2019) Cotswolds@50/Future Landscapes

This report is also referenced within Question 2. This workshop reported on four community workshops which considered landscape change, how it might affect the Cotswolds National Landscape in the future and collectively identified a preferred direction that communities want landscape change to take. Three scenarios outlining intentionally exaggerated routes of change ('liberalisation', 'localism' and 'enhanced protection and conservation') were considered each with a corresponding image, based on a 'typical Cotswold view'. Alterations were made to the photograph to match the scenario and make the changes visible:

- Under the liberalisation image, hedges were removed or gappy ones retained, a large solar array was added and more housing (amongst other changes).
- Under the localism image, there was a small cluster of houses, a small solar farm, a farm reservoir, a species rich meadow, agro-forestry, and the retention of hedges.
- Under the enhance protection/conservation image, there was mixed woodland, a species rich meadow, a cluster of dwellings, local sheep breeds and walkers.
- Workshops provided a clear steer from the communities involved as to what they see as important and want to see in the future.

Following an assessment of all of these approaches, the decision was taken to adopt an approach using 'before' and 'after' photographs based on different ALT landscapes known to the respondents. This was informed by research undertaken by Shepherd (2021).

4. Quantitative survey of public views on the effectiveness of AES for their local landscape

4.1 Introduction

During the summer of 2022, the study team carried out an online survey with members of the public in England. The purpose of the survey was to gather information about the public's perceptions of AES and of the impacts that these schemes may have on the look and feel of their local countryside. Background information – in terms of reported behaviours and beliefs – was also gathered.

4.2 Summary of key findings

- The online survey was carried out with leisure users of the countryside; the largest group visited their local countryside several times a week, and the majority did so for a walk.
- The countryside was most important for participants for the opportunities to experience **wildlife**, and for their **mental and physical well-being**. These people placed a very high importance on the protection of wildlife.
- Nearly half of respondents had discerned **detrimental change**(s) in their local landscapes over the past five to ten years. This perceived worsening was evident across all landscape types, but was particularly noticed in the urban fringes. These changes were seen to be the result of housing, roads and industrial development on what had previously been 'green-space' land.
- After having been given a limited and unbiased description of **AES** based on publicly available sources, a large majority thought they were a good or very good idea. This is perhaps connected to the belief that farmers should protect the countryside for future generations (95% agreed) and that it is very important to protect the countryside from further urban development (95% agreed).
- Only a minority of respondents thought that AES would make the countryside less beautiful, more scruffy or less accessible. In contrast, more than three-quarters thought they would be better for wildlife, climate change and beneficial for people overall. This supports the findings in Rust et al (2021) for improved biodiversity within managed farm landscapes.
- There was thought to be four priorities for AES carbon capture (93% high priority), creation or management of wildlife habitats (92%), flood alleviation (91%) and soil protection/management (90%). A high priority was also placed on improving the biodiversity of watercourses (93%) and the creation and management of woodland (92%).
- The majority of respondents would want a more environmental and wildlife-friendly landscape even if it meant a scruffier, less tidy landscape (64%), less public access (55%) and some loss of views (50%). However, they would not want this more

environmental and wildlife-friendly landscape if it meant a reduction in food production or a potential loss of local identity and character.

- Participants' perceptions of the overall **attractiveness** of their local landscapes improved slightly in response to the 'after' image they were shown, compared to ratings for the 'present' images. However, when asked directly whether the 'after' view was an improvement, 50% said it was. The perceived improvement was highest in the Eastern Arable ALT (79% improvement) and lowest in riparian contexts⁷ (35%).
- There is some evidence to suggest that this sample of countryside users would make more frequent (and more varied) visits to the countryside if it was as shown in the 'after' image example. There is also evidence that a significant minority might be willing to volunteer to create or maintain the future landscape; a majority would like to receive information about local schemes.

4.3 Use of local countryside landscapes

The survey participants were quite frequent leisure users of their local countryside. A quarter (25%) visited these places on a daily basis and 40% did so several times a week. Older (40+) respondents were more likely to be frequent countryside visitors than those under the age of 40.

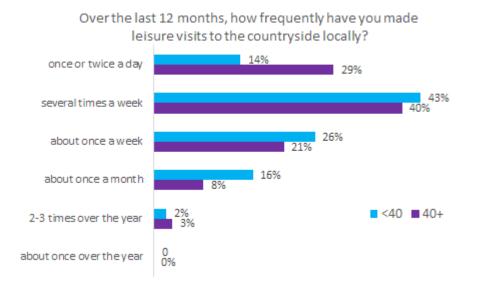


Figure 4.1: Frequency of local countryside visits (n⁸=420)

By far the most frequent activity during their countryside visits was walking. More than 90% of people said they had walked in the countryside during the past year; more than six in ten people (61%) had met with friends and family; and nearly a half (48%) had walked their dog(s). Infrequently mentioned activities included field sports (5%), climbing (3%) and horse-riding (2%).

⁷ The riparian images were thought to illustrate a lack of river management, with stagnant water and water full of weeds.
⁸ n indicates the number of participants who answered the particular question in the survey. As the methodology explains (p20) whilst 561 people started the online survey, about a quarter of these dropped out during the first stages of the survey and a total of 420 participants completed all questions. This explains why the 'n' number varies between figures.

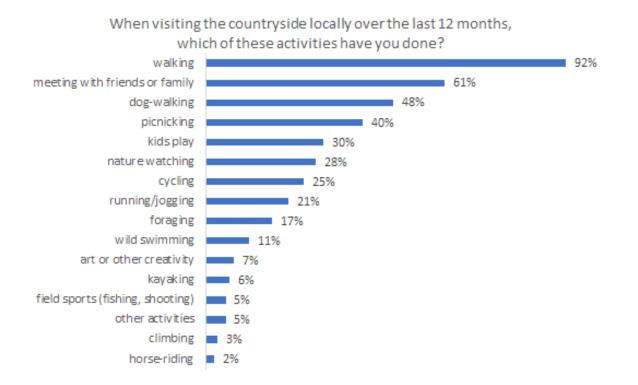


Figure 4.2: Leisure activities undertaken during local countryside visits (a multiple-choice question; n=534)

4.4 What is important in the countryside?

The survey sought to establish the perceived importance of participants' local countryside. They were presented with a pre-defined list of cultural and other ecosystem services, along with other factors that might be important, and were asked to rate each for its importance to them⁹. Cultural services are the non-material benefits people obtain from ecosystems; ecosystem services are the benefits to humans provided by the natural environment.

The top five most important features of their local landscapes (all with an importance rating of 90%+) were:

- the opportunities to see or hear wildlife 95% of countryside users said this was a very or quite important aspect of their local countryside;
- opportunities for mental well-being (94%);
- opportunities for recreation or exercise (93%);
- peace and tranquillity (93%); and
- scenic views (91%).

⁹ The list of the cultural and other ecosystem services is shown in summary in the next figure – the full wording can be found in Appendix 11.3 (e.g. see Question 6).

The local countryside can have various purposes and characteristics. How important do you think these are? ... (5-point importance scale, % saying quite or very important)

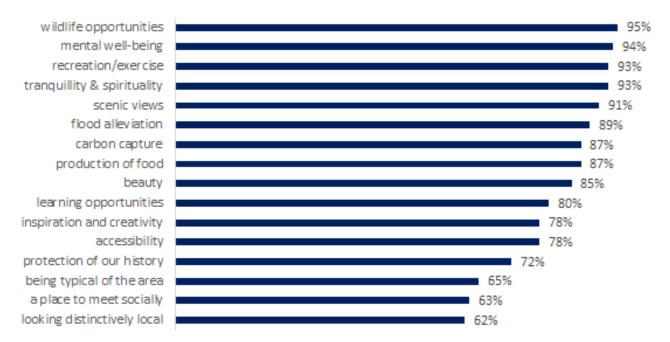


Figure 4.3: Importance of countryside purposes and characteristics. (The labels in this chart have been abbreviated for clarity; for a full description, see Appendix 10.4, question 6) (n=430).

A similar 'importance' exercise was carried out with another list of factors, this time combining landscape purposes (such as energy production) with its visual impacts (such as neatness). It may be noted in Figure 4.4 that people rated the protection of wildlife (99% very or quite important) over both food production (91%) and rural employment (90%). It may also be noted that 'neatness' of the landscape was the least important factor – with just over a third of people saying this is very or quite important.

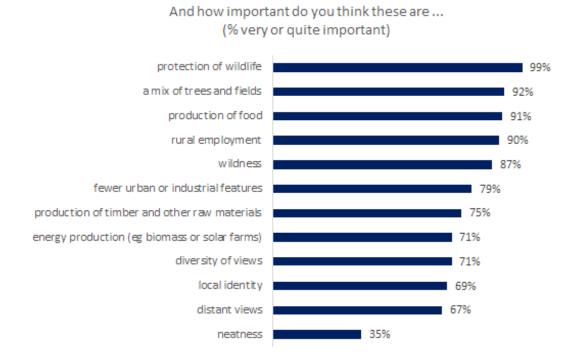


Figure 4.4: Importance of other countryside factors (n=430)

Natural England asked us to include a question about how people feel about the different 'generic types of countryside landscapes that exist in England, using a pre-agreed list of countryside types (such as the 'coastline and 'mountains and moors')'. The intention was not to make a link with ALTs but to see what sort of landscape respondents preferred. Respondents could choose up to three types and Figure 4.5 shows the percentages for their 'top choice'. Across the sample, 'top-choice' favourites were the coastline (20% top choice) and 'rolling hills and valleys (20%). Least favourite were lowland heaths (2%) and the fringes of town and cities (1%). It should be noted that no explanation was offered for any of the countryside landscapes listed.

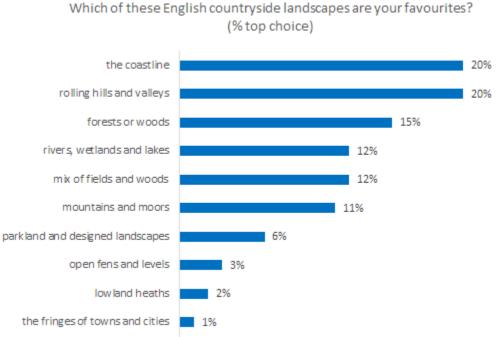


Figure 4.5: Favourite countryside landscapes in England (multiple choice, 3 options; n=429)

As shown in Figure 4.3, **beauty** was a mid-ranking characteristic in terms of importance¹⁰. We were asked to include a question about what 'beauty' means to people: "what does beauty mean to you in the context of countryside landscapes?" This open question probed this issue with some interesting outcomes, summarised in the word cloud (Figure 4.6). This shows all words mentioned by two or more people. As may be seen, the key associations with beauty in the landscape are nature, trees, wildlife, green, views and space. Participants were quite lyrical in their responses, as some example quotes illustrate.

"Beauty to me is attractive landscape with range of features – fields, trees, ponds, streams etc, but also alive with life – sounds, smells, movement."

"The simple perfection of nature itself, an array of colours and shapes that are supposed to be there that slightly change season to season every year. The harmony and balance of life. Plants, animals, insects and the earth benefiting from each other in every way they can and have to."

"Healthy flora and fauna, clean rivers and canals, no litter/fly-tipping, and lots of trees"

¹⁰ The term 'beauty' was not defined for respondents.

"Beauty means animals thriving, on a bed of grass, stone walls across the fields, trees blowing in the wind that change colour throughout the year, flowers growing."



Figure 4.6: Wordcloud on the topic of beauty in countryside landscapes

4.5 Participants' attitudes to their current landscape

As discussed earlier, people were presented with a photograph that showed a view of an example landscape in their local area. The locality where the photograph was taken was described, but no other information was given. They were then asked:

- How attractive do you find this countryside view?
- How would you rate the countryside in the image for ...? (This question examined a range of factors, the same as the first group of factors examined for importance in the previous section of this report.)

Across the ALTs examined in the survey, more than three-quarters of people found their local countryside to be attractive: 33% very attractive and 45% quite attractive. However, there are some observed differences between the ALTs. For example, if people lived in or near a riparian (i.e. river) landscape (98%), upland landscape (97%) or upland fringe landscape (97%), they thought them considerably more attractive than people whose local landscapes were urban fringe areas (63%) or chalk/limestone mixed countryside (64%). See Figure 4.7.

Overall, how attractive do you find this countryside view? (% very/quite attractive)

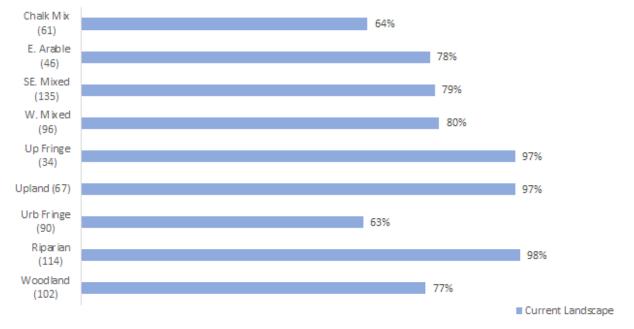
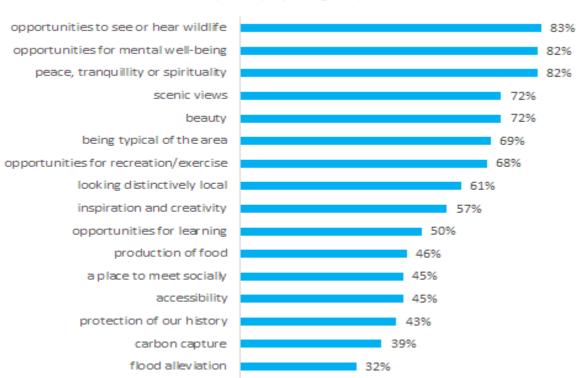


Figure 4.7: Attractiveness of the local countryside view ('before' image). The sample size is shown alongside each ALT

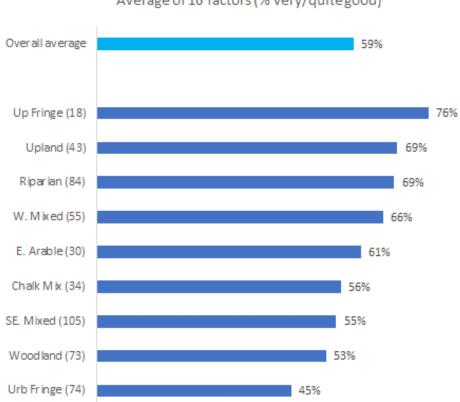
When asked to rate the countryside in the first local image (on a range of categories that included 'inspiration and creativity' and 'flood alleviation'), the top-three rated categories were: opportunities to see/hear wildlife (83% very/quite good), opportunities for mental well-being (82%) and peace, tranquillity, or spirituality (also 82%). See Figure 4.8.



How would you rate the countryside in the image for ...? (% very/quite good)

Figure 4.8: Ratings for local countryside view ('before' image). N=519

Perceptions do not differ significantly between different ALTs – at least, not in a consistent fashion. Taking all 16 factors and the nine ALTs together, the overall average for the current landscape view was a score of 59% very/quite good. The Upland Fringe ALT scored highest with an overall score of 76% (+17%) and achieving the highest score in ten of the 16 factors. Lowest scoring was the Urban Fringe, with an overall score of 45% (-14%) and with the lowest score for ten of the 16 factors.



How would you rate the countryside in the image for ...? Average of 16 factors (% very/quitegood)

Figure 4.9: Ratings for local countryside view by ALT (before image). N=359.

4.6 Attitudes towards AES

4.6.1 Context

By way of context, Figure 4.10 indicates people's current attitudes towards the countryside and the various changes that are taking place nationally. As may be seen, there is considerable belief in two ideas – that 'farmers should protect the countryside for future generations' and that the countryside should be protected from 'yet more urban development' (95% agree/strongly with both statements). It is clear that there is strong support for many aspects of environmental improvement and change, 'wildness' in particular. A total of 89% believe that wildness 'is a sign of habitats that are supporting wildlife' – and only 38% agree that the countryside should look tidy and not scruffy.

Do you agree or disagree with these statements that describe how people might feel about their local countryside? (% agree, agree strongly)

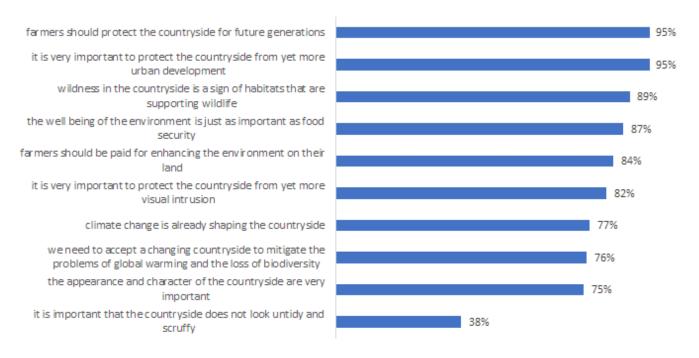


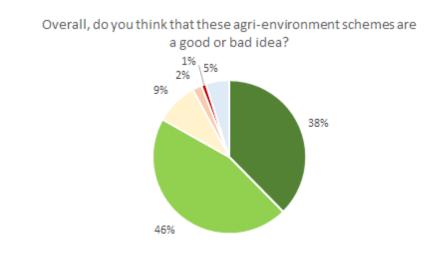
Figure 4.10: Beliefs about the local countryside (n=429).

4.6.2 Support for AES

People were given the following short description of AES by way of introduction. The intention was to provide a limited and unbiased explanation to all respondents that was crafted from publicly available material to ensure an even understanding of AES. The statement read as follows:

"The Government in England is changing the way it offers grants and payments to farmers and land managers. Some payments will continue to be linked to improvements aimed at benefiting wildlife and the environment – and new schemes will offer a range of options for farmers to manage their landscapes for flood alleviation and carbon capture, seeking to reduce the impact of a changing climate. Collectively these are known as agri-environment schemes. Participation by farmers is voluntary."

There is considerable support for the schemes from countryside users – 84% thought that they are a good or very good idea (Figure 4.11).



a very good idea a good idea neither a bad idea a very bad idea don't know

Figure 4.11: Overall attitudes to AES. N=497

However, support for AES from the countryside users interviewed in this study is not equal across England (Figure 4.12). There are higher-than-average responses from Oundle (97%) and Nelson/Colne (90%), in particular. Support was lowest in Stafford/Cannock (66%).

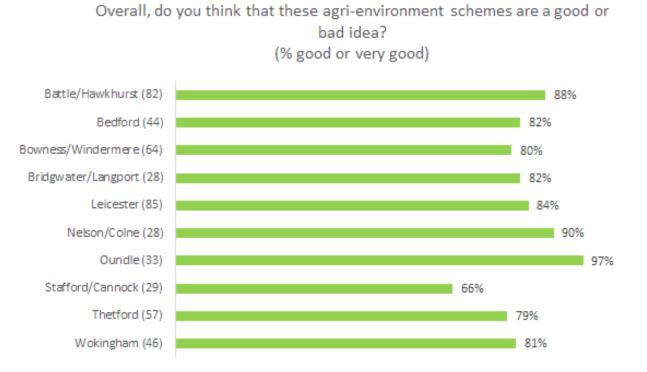


Figure 4.12: Overall attitudes to AES, by AES locality. The sample size is shown alongside each ALT

In total, 36 members of the farming community contributed their perceptions and attitudes as survey respondents (see section 4.13 for more findings from this group). There was a small difference in the responses from the farming community and the wider countryside-user population to this question, but not a statistically significant one. A total of 81% of the farming community were in support of AES, compared to the wider population average of 84%.

When asked why they thought AES schemes were a good idea, countryside users from all English survey areas who had said they were positive toward the

schemes often talked about the problems that farmers face and the benefits that the schemes could bring. This open-ended question resulted in responses such as the following:

"So the already struggling farmers don't sell their land for developments."

"Anything to encourage environmental responsibility has to be good. Currently farms are too reliant of pesticides / fungicides and herbicides."

"Because farmers will be rewarded for responsible farming practices and especially for farming less intensively, balancing production with environmental and access needs."

"Although food is a priority, farmers can make use of these grants to work together with wildlife organisations and help restore habitats lost in the last seventy years."

"Farmers are custodians of the countryside. They live and work there and so they need incentives to protect and promote the rural environment as a recreational space."

"Most farmers that I speak to are keen to make things better but need to be helped to afford change."

"To save the planet and all who live on the earth."

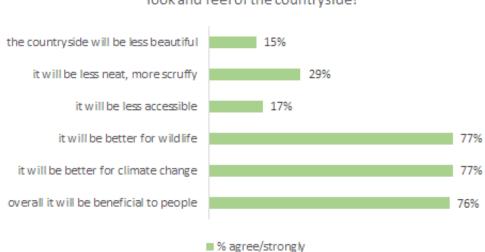
The perspective of those few people who thought that AES schemes are a bad idea was a little more varied. Food production is evidently more of a priority here, but there are also concerns about wasted resources and the importance of long-standing farming practices, for example:

"We need to be self-sufficient in producing our own food stuffs & not so reliant on imports"

"The government shouldn't pay the farmers but educate the whole nation on how to look after our countryside. Money can't solve our problems"

4.6.3 Anticipated changes resulting from AES

Respondents were asked what changes they thought these schemes might make to the look and feel of the countryside. A large majority (75%+) of countryside users in this survey saw AES as bringing potential benefits to wildlife, climate change and for people generally. The clear majority do not believe that the countryside would be less beautiful, less neat or less accessible.



What changes do you think these schemes may make to the look and feel of the countryside?

Figure 4.13: Perceived impacts of AES on the local countryside. N=484.

4.6.4 Priorities for AES

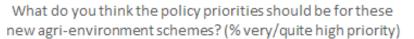
Respondents were asked what they thought the policy priorities should be for these new AES; they were given a list of possible priorities and asked to score them from 'very high' to 'very low'. The findings show that participants ranked all options highly, with four of these scoring 90% or more (very/quite high priority) and all of them scoring 67% or more.

The top four priorities were seen to be:

- action to capture more carbon, for example by planting trees and hedgerows (93% a very or quite high priority);
- creation and management of wildlife habitats (92%);
- capturing more water, to alleviate flooding of towns and villages downstream (91%); and
- soil protection and improvement (90%).

None of the policies were seen to be a low priority, but those with a slightly lesser focus were:

- conserving traditional farm buildings (67%);
- conserving archaeology (69%); and
- improving public access to the countryside (70%).



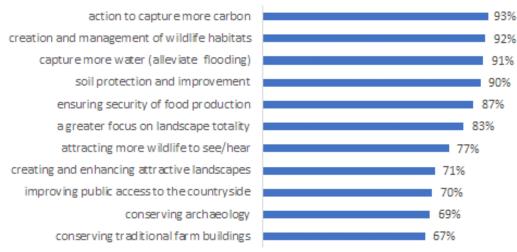
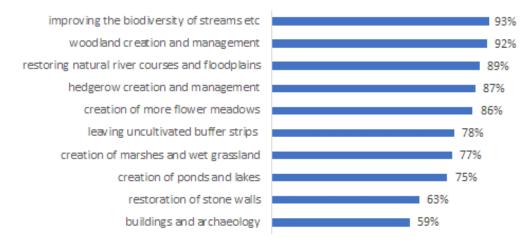


Figure 4.14: Perceived policy priorities for AES. N=464

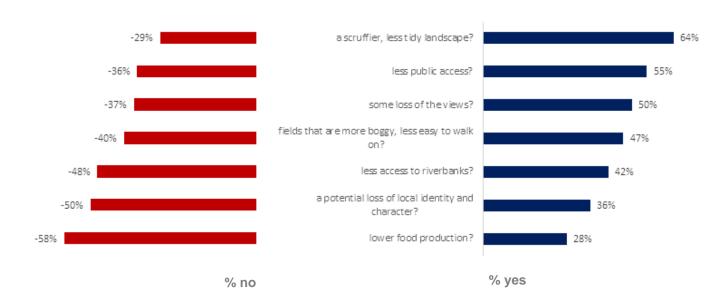
A subsequent question asked what features in the landscape should be a high (or low) priority focus. All landscape features were seen to be a priority by the majority, with the top priorities being 'improving the biodiversity of ditches, streams and rivers' (93% very/quite high) and 'woodland creation and management' (92%). In line with the findings above, the lowest two priorities were 'buildings and archaeology' (59%) and 'restoration of stone walls' (63%).

How great a priority do you think there should be for: ... (% very/quite high priority)





The survey questionnaire sought to understand the extent to which participants would be prepared to accept downsides from having a more environmental and wildlife-friendly landscape. As may be seen in Figure 4.16, the research suggests that support for the idea of AES is sufficiently strong that these people are, on balance, prepared to accept a scruffier landscape (35% net positive; that is, 64% 'yes' minus 29% 'no') and less public access (+19% net). They would also be prepared to accept some loss of views (more finely balanced at +13% net). There are several outcomes that, on balance, these participants would be unwilling to accept: lower food production (30% net negative), loss of local identity and character (-14% net) and less access to riverbanks (-6% net).



Would you want a more environmental and wildlife-friendly landscape if it meant ...

Figure 4.16: Perceived preferences for potential AES impacts. N=433.

4.7 Perceptions of landscape change

The results of the previous question imply participants' acceptance of some changes in the landscape that might arise from AES; the following question explored whether this might be an outcome from changes that have already been seen. Respondents were asked if their countryside landscapes had improved or got worse over the past five to ten years. As may be seen below, fewer than one in five had seen an improvement and a significant number had seen detrimental changes. Nearly half (47%) thought that their local countryside landscapes had got worse.

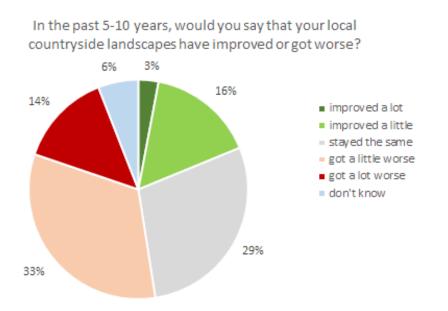


Figure 4.17: Perceptions of change in local countryside landscapes. N=506.

The perceptions of change in each of the ALTs is shown in Figure 4.18. It is clear that participants in the urban fringes have seen the greatest negative changes; here, nearly two-thirds of respondents had experienced a worsening of the local landscape.

In the past 5-10 years, would you say that your local countryside landscapes have improved or got worse?

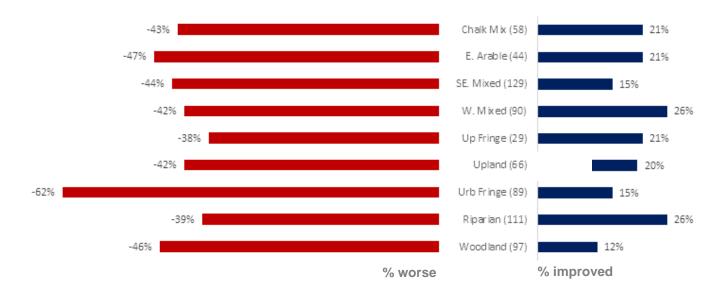


Figure 4.18: Perceptions of change in local countryside landscapes, by ALT. The sample size is shown alongside each ALT

The biggest detrimental change was felt to result from the building of housing, industry and roads on previously agricultural "green-space" land. An open question ('Why do you say that?') yielded responses such as:

"It feels that the countryside is shrinking with too much building."

"Loss of land to unnecessary housing development and intensive farming."

However, this is not the only change. Others talked about an environment that was generally less well-managed, with problems such as more litter, fly-tipping, eroded paths, unrepaired walls, encroaching bracken and hedges that have not been maintained by local councils. Some of these problems were seen to be the result of a large increase in the numbers of countryside visitors. An increase in the level of noise is also an issue for some participants.

"It just feels a bit neglected. By us we have a lovely common but now it just seems unloved. It always used to be a place of beauty."

"Eroded paths; felled trees; litter and toilet paper."

"Misuse of landscape, fly-tipping, poor maintenance, road noise."

Although the negative changes outweigh the positive, some people do see signs of hope, such as more wildflower meadows, restored hedgerows, more 'wilding', an increase in organic farming and better woodland management. For example:

"More hedgerows and uncut meadows, more rewilding at roadsides."

"Better accessibility for hiking, better information about local attractions and landmarks."

This sense of hope carried into the next question, which asked what changes participants would like to see in the future. The suggestions included:

- better accessibility and information for countryside users;
- action to improve life for wildlife, such as wildlife corridors;
- less rural development;
- better countryside management;
- fewer tourists; and
- more trees, hedgerows, wildness (and less monoculture).

"Improved accessibility with better easier pathways for walking, perhaps wildlife observation points. More hedgerows replaced."

"More hedgerows, cleaner water in local rivers and lakes. Native trees over fir trees."

"Plant more trees not houses, better accessibility."

"Drainage work around footpath routes to improve drier access."

4.8 Reactions to the post-AES landscape images

As discussed earlier, the impacts of AES were examined by means of 'before and after' images, where the 'after' images illustrated the types of change in countryside landscapes that could take place after AES implementation. Respondents were shown 'before and after' images relating to their local countryside landscapes, with respondents in each locality seeing images specific to their locality. The images had been digitally manipulated¹¹.

Across the entire survey sample, the 'after' images were seen to be slightly more attractive than the current ones, with a 5% uplift in the attractiveness score (from 78% to 83%) between the current and future landscape views¹².

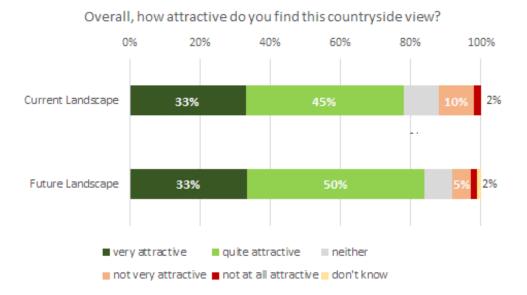
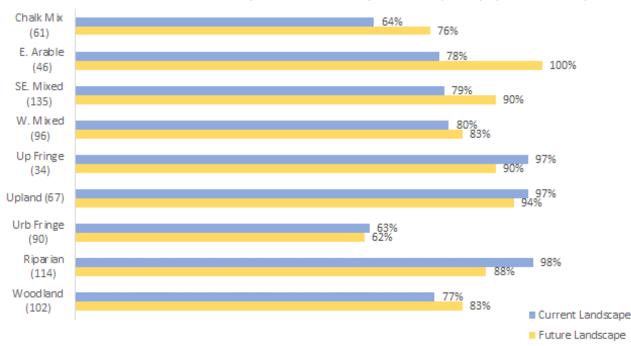


Figure 4.19: Attractiveness, 'before and after' views compared. ('Before' n=530; 'after' n=515).

There are some interesting differences between the ALTs, with some major increases in the attractiveness score, particularly in the Eastern Arable areas (+22%). Slightly smaller increases in attractiveness can also be observed in the Chalk/Limestone mixed, South East Mixed and – to a lesser extent – in the Woodland ALT areas (+12%, +11% and +6% respectively). However, the future views were seen to be less attractive in three ALT areas: Riparian (-10%) Upland Fringe (-7%) and Upland (-3%). These results are shown in graphic form in Figure 4.20.

¹¹ A full set of the image pairs may be found in Appendix 10.8 of this report.

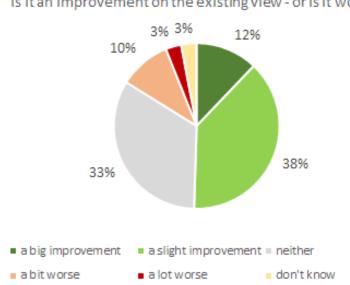
¹² It should be noted that respondents were shown the before and after images and asked to say how attractive each was – this analysis compares the two sets of results. The results on this page are not a reflection of respondents making a direct comparison.



Overall, how attractive do you find this countryside view? (% very/quite attractive)

Figure 4.20: Attractiveness, before and after views compared, by ALT

Respondents were subsequently asked to make a direct comparison – is the 'after' view of the countryside an improvement on the existing view, or is it worse? Here, results show that half of these people believe the 'after' image is an improvement (50%) and fewer than one in eight believe it is worse (13%).



Is it an improvement on the existing view - or is it worse?

Figure 4.21: Improvement of view, after image compared with before image. N=510.

An analysis of this question for each of the ALTs is shown in Figure 4.22. For every ALT, there is a significant majority who believe the future view is an improvement, although there are three ALTs where one in five or more people believe that the future view is worse. See Chapter 6 for a more detailed breakdown of these findings as they are compared with expert views.

Overall, do you think the future view is an improvement - or is it worse?

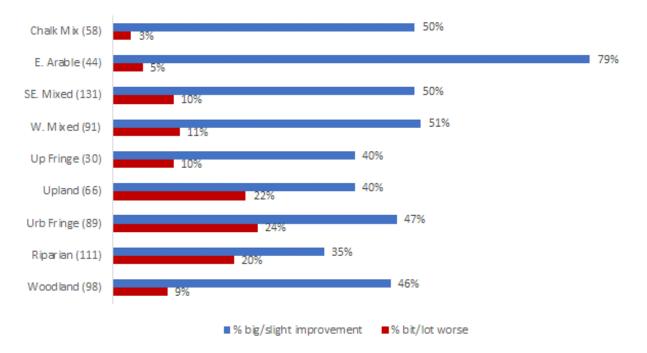


Figure 4.22: Improvement of view, 'after' image compared with 'before' image, by ALT. The sample size is shown alongside each ALT

A subsequent open question asked "why?" the 'after' image was felt to be an improvement; responses were very varied, something that will be explored further in Chapter 6. Those seeing an improvement talked about such issues as the view being more open and with more variety, with more wild flowers, trees, hedges and 'greenery'. Some saw more opportunities for walking in the fields; some the sort of changes that would be attractive for animals and birds – as well as the creation of a more attractive and varied vista for people. Some participants noted the removal of fencing and believed that it made for a more 'natural' look:

"Greener space is more inviting. Kids like to walk in field with animals. Clear path gives good directions and clear right to be there."

"It looks more relaxing and I would definitely go there where in the first picture I wouldn't."

"The hedges are fuller, better for wildlife, foraging, bird nesting & insect life. Addition of a pond / area of water would be perfect."

"It's more interesting to view, it preserves local insects and wild flower population, it is an opportunity for many hobbies such as flower pressing or painting."

"It looks less barren and the introduction of animals makes it feel more alive."

"Visually more attractive. It gives access along field boundaries."

The one in eight people who saw a worsening from the future view drew attention to such issues as:

- water that looked stagnant and full of weeds, with edges that appeared unmanaged and thus were perceived to be more prone to flooding;
- general feelings of signs of neglect;

- concerns about a loss of food production; and
- continuing concerns about more housing.

"Stagnant water."

"The river side needs to be managed. It looks as though the Himalayan Balsam is taking over."

"Weeds in the river, crowded."

"It looks neglected."

"If this is the future then there will be limited crops."

"More countryside being destroyed to build more houses."

An examination of the images containing the 'future' landscapes was carried out by presenting respondents with a list of ecosystem services (cultural and otherwise), as well as a few other aspects (such as accessibility and production of food). They were asked to rate the future-countryside images on each aspect (using a five-point scale, from very good to very poor).

Overall, the future landscape views scored very highly on 'opportunities to see/hear wildlife' and on 'peace, tranquillity and spirituality' – both scoring 90% very/quite good. Mental well-being was closely behind at 89%. The future landscape views scored lowest on 'production of food' and 'accessibility' – both scoring 48%. See Figure 4.23.

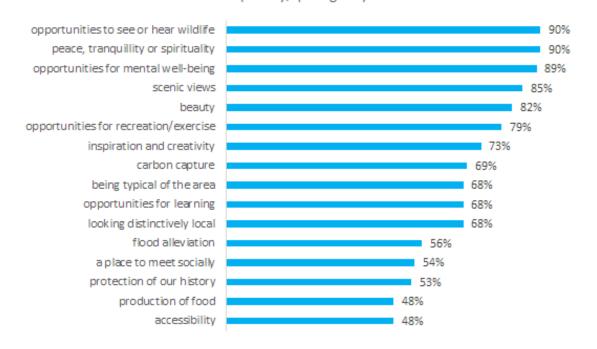




Figure 4.23: Ratings for local countryside view ('after' image). N=437.

Although most 'after' images for the individual ALTs had perceived future qualities that were close to the average, there were some ALTs where people's perceptions were more varied. The main variances were:

- **Urban Fringe**, for which the future view scored poorly for:
 - opportunities for recreation/exercise and mental health and wellbeing;
 - scenic views;
 - being typical of the area and looking distinctively local; and
 - protection of history.
- Upland, which scored well for:
 - opportunities for mental health and wellbeing and for learning;
 - scenic views;
 - peace, tranquillity or spirituality, inspiration and creativity; and
 - flood alleviation.
- Upland Fringe, which scored well for:
 - scenic views;
 - a place to meet socially;
 - accessibility;
 - production of food
 - being typical of the area and looking distinctively local;
 - protection of history; and
 - beauty.

Respondents were shown the future landscape view on two occasions: firstly, without any description that would guide them to an understanding of what they were seeing; and secondly, with a written description of the aspects within the landscape that had changed. After the second occasion, people were asked to say how attractive they thought the new aspects of the landscape were, responding to a list that was tailored to the image and written descriptions that they had been looking at. (Everyone was asked about "a slightly wilder look" as this applied in all images.)

Figure 4.24 presents an overview of the results to this question, with the new landscape aspects ordered in terms of attractiveness. All bar two of the new aspects of the landscape gained an attractiveness score of more than 60% and four aspects had a score of 90% or more: wildflowers, clean water, new trees and new hedges. The two aspects with a score of below 60% were new kissing gates (55%) and fewer livestock numbers (32%).

How attractive do you think these new aspects of the landscape are ... (% very/quite attractive)

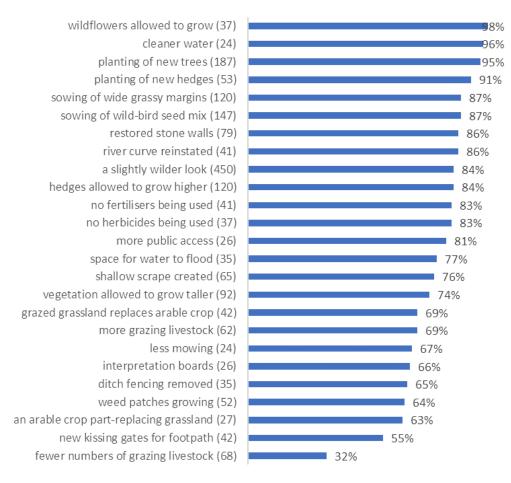


Figure 4.24: Attractiveness of post-AES landscape aspects ('after' image). The sample size is shown alongside each new landscape aspect.

The results for the individual aspects (features and actions) within the context of each of the ALTs show (with some exceptions) considerable similarity. Figure 4.25 extracts some of the landscape aspects that were changed and presents the summative results for the ALT images, which used these descriptions:

- planting of new hedges;
- hedges allowed to grow higher;
- no fertilisers being used;
- restored stone walls;
- shallow scrape created; and
- planting of new trees.

There are exceptions to this degree of similarity, most notable of which concern the issue of 'fewer numbers of grazing livestock'; as shown in Figure 4.24, this was the lowest-scoring aspect overall. The attractiveness score for fewer livestock numbers was 46% in the Western Mixed/Riparian context, 33% in the Upland Fringe and only 12% in Upland areas.

How attractive do you think these new aspects of the landscape are ... (% very/quite attractive)

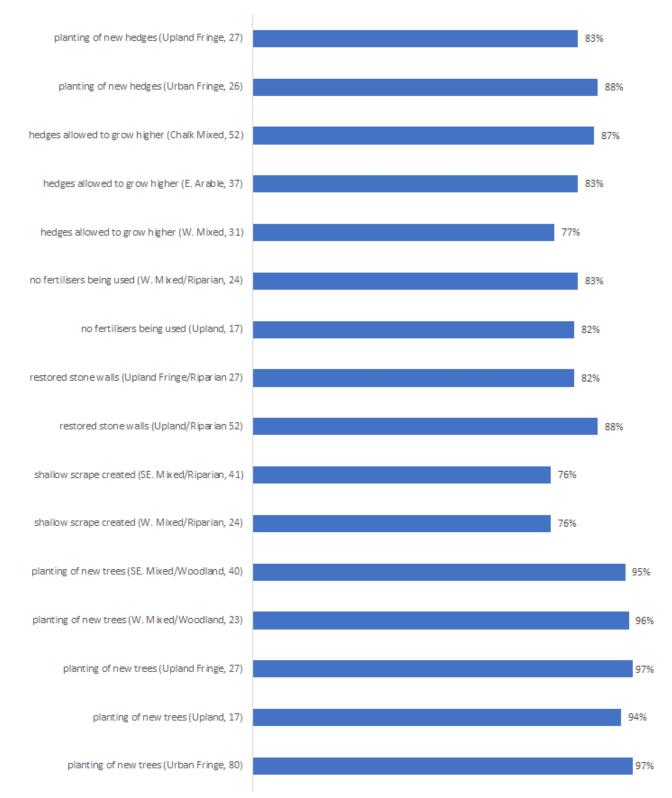


Figure 4.25: Attractiveness of post-AES landscape features ('after' image). The sample size is shown alongside each ALT

4.9 Potential of AES to encourage countryside visits

Although people's intentions can be difficult to measure well, there is a suggestion from this research that countryside landscapes in a future, post-AES world may create some behavioural change, in terms of the frequency and purpose of participants' visits to the countryside.

Respondents were asked if they thought the changes shown in the 'after' image would make them more or less likely to visit the countryside. The likelihood of greater numbers of countryside visits was more obvious in three ALTs: Chalk/Limestone Mixed (74% much/a bit more likely), Eastern Arable (73%) and Urban Fringe (70%). The least likelihood of more visits was in Upland and Upland Fringe ALTs.

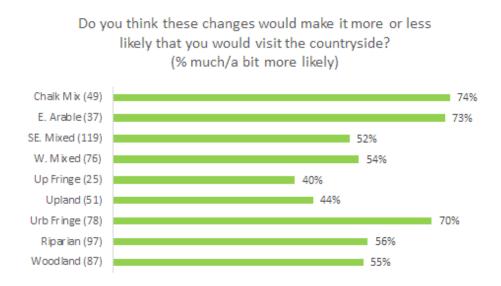


Figure 4.26: Intended frequency of countryside visits in the post-AES landscape. The sample size is shown alongside each ALT

A similar picture emerges in terms of the **variety** of reasons that people might have to visit the countryside in the future, post-AES, scenario. See Figure 4.27.

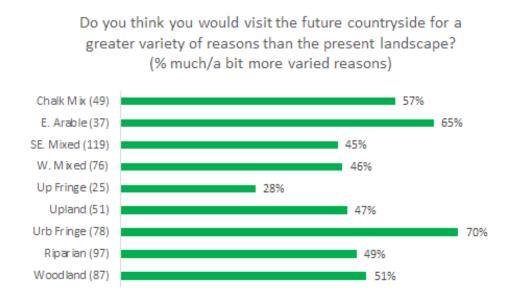


Figure 4.27: Intended variety of countryside visit reasons in the post-AES landscape. The sample size is shown alongside each ALT

4.10 Summary of countryside ratings and how they compare

The survey gathered respondents' perceptions of the countryside in three contexts:

- In response to a **before** image of a typical example of the local countryside.
- In response to an **after** image of a typical example of the local countryside and after reading a short neutral description about AES.
- For the 'local countryside' as imagined without any supporting imagery.

A range of common factors was used, so it is possible to make some direct comparisons.

The first of these compares the ratings for their 'local countryside' (without any supporting imagery) and the pre-AES photographic image of a typical local landscape view. This is different from the countryside views as shown to them through imagery – it effectively reflects the mental pictures that are evoked when they are asked "how would you rate your local countryside?"

When taking all the study areas together, the 'current' local landscape outperforms the pre-AES image on all sixteen factors and, in some cases, by a considerable margin (notably accessibility and social space, where there is a gap of more than 30%). See Figure 4.28.

These results suggest a possible hypothesis that, when asked to rate their local countryside, people imagine a place or places that are in some way special to them personally. In this way, they could be putting more focus on the better spaces locally, with less of a focus on the less-attractive locations. This might explain why, when shown a real-life image of a typical local landscape view, they rate it less highly than their mental picture of the area.



Current and pre-image compared

Figure 4.28: Comparative ratings for local countryside views (no image and 'before' image)

When shown the image of a post-AES landscape view (and at the **same** location, but with changes in the landscape arising from the AES) the ratings come much closer together and, in many cases, overlap (see Figure 4.29). The post-AES images outperform what was said about the current landscape on two key landscape services: carbon capture and flood alleviation. However, there are two factors for the post-AES view that fail to match the mental image: accessibility and social space.

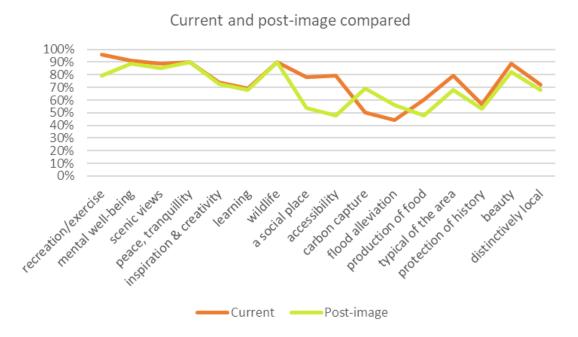
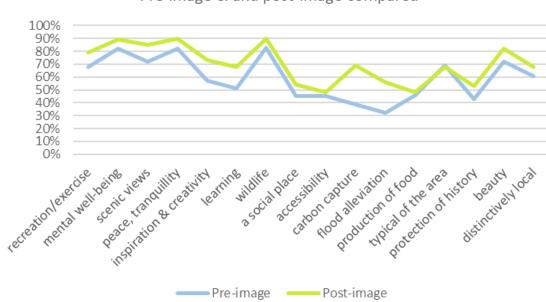


Figure 4.29: Comparative ratings for local countryside views (no image and 'after' image)

The third analysis presents a comparison of the 'before'- and 'after'-AES images, again taking all the study locations together. As may be seen in Figure 4.30, the ratings for the 'after' images generally outperform the 'before' images, although they almost overlap for production of food and for being typical of the area.



Pre-image & and post-image compared

Figure 4.30: Comparative ratings for local countryside views ('before and after' images)

This analysis suggests that the landscapes shown in post-AES images are seen to be 'better', almost across the board, but with particular improvements in perceptions of the landscape's capacity for carbon capture and flood alleviation.

4.11 Are countryside users' needs being met?

A typical analytical approach in commercial market research studies is to make a comparison between the importance that people place on product or service features and the satisfaction or performance ratings for those same features. This enables a 'gap analysis' to be created, which can highlight where performance is failing to meet expectations.

This research study asked respondents to rate their local countryside on a range of 'features' (see the previous section of this report). It also asked them to say how important each of those features were to them, using the same set of features. These importance scores and ratings have been used to make direct comparisons between their requirements of the countryside (for example, how important is peace and tranquillity?) and the extent to which their local countryside delivers on the same issues (for example, how do you rate your local countryside for peace and tranquillity?).

The first of these gap analyses examines participants' ratings for their local countryside and compares them to the importance of each aspect of the countryside (see Figure 4.31). Participants' current landscapes perform in line with their requirements on many aspects, such as recreation, mental well-being, scenic views and peace/tranquillity. However, their local countryside fails to match the perceived importance of carbon capture, flood alleviation and the production of food.

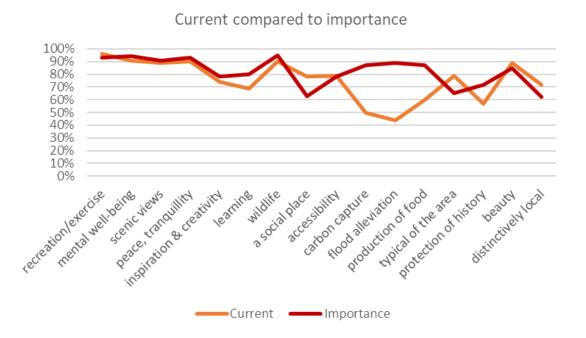


Figure 4.31: Gap analysis for local countryside (no image and importance scores)

With the discussion of the previous section of this report in mind, it is perhaps not surprising that the pre-AES images of local landscapes fall well short of the importance that respondents placed on the 16 landscape factors that were examined; the only exceptions are for being 'typical' and 'distinctively local'.

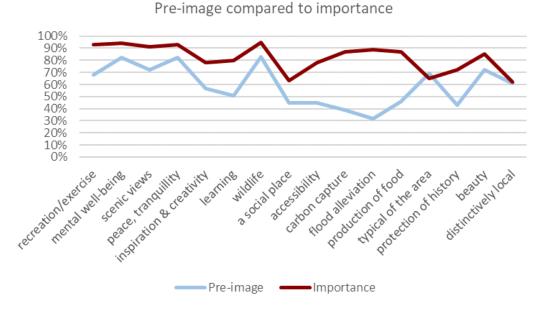
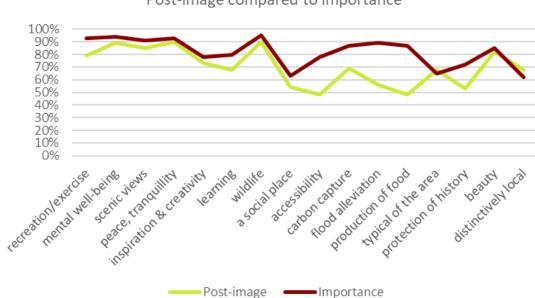


Figure 4.32: Gap analysis for local countryside ('before' image and importance scores)

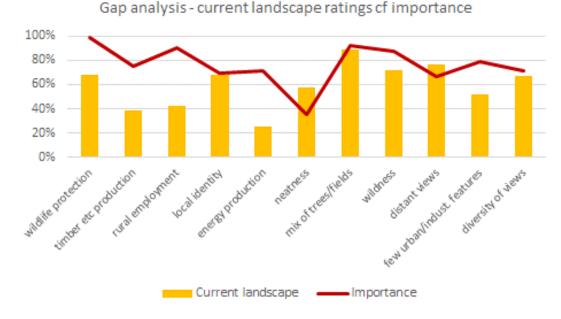
When the post-AES images are compared with the importance scores, the improvement in landscape perceptions across the combined study areas becomes evident. However, there are still some significant gaps where the future view is not meeting people's requirements. The notable examples are accessibility, carbon capture, production of food and protection of history.



Post-image compared to importance

Figure 4.33: Gap analysis for local countryside (after image and importance scores)

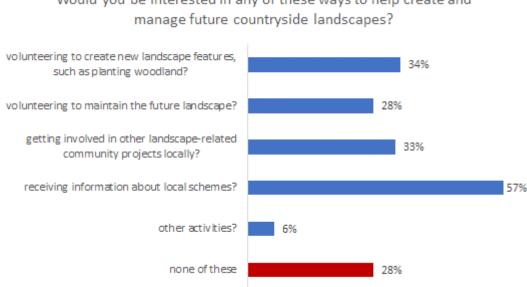
One final gap analysis is possible from the findings of this study – comparing the importance and performance of respondents' current local landscapes on such issues as wildlife protection, timber production and rural employment. The low importance of neatness comes out again in this analysis, but the current landscapes are not matching people's expectations in numerous areas, notably the protection of wildlife, the production of timber and other raw materials, rural employment and energy production.





4.12 Engaging the public

An initial attempt was made to analyse whether survey participants might be interested in helping to create and manage future countryside landscapes, if help from the local community was required. Of the options presented to them, a small majority said they would be interested in receiving information about any local schemes. There is also some indications that some local people might be willing to volunteer to create landscape features, such as woodland (34%), or get involved in other local landscape-related community projects (33%). Slightly fewer were interested in volunteering for ongoing maintenance (28%). The 'other' activities, mentioned by 27 respondents, included: litter picking, creating habitats for wildlife, generating public interest, planting wildflower strips or 'anything that would help tackle climate change'.



Would you be interested in any of these ways to help create and

Figure 4.35: Interest in future volunteering. N=417.

4.13 Some views from the farming community

4.13.1. Introduction

From the outset of this study, it was thought important to gather some views from the farming community, with the expectation that the perceptions of the general 'countryside user' public might not represent their beliefs. By 'farming community' we mean people who were employed in farming, other agricultural jobs or arboriculture (or had a member of their immediate family in these occupations).

As a result, some effort was made during the recruitment to ensure that farmers and their families took part. In total, 36 people from the farming community completed the online survey (about 9% of the final sample). A sample of this size cannot be considered representative of the whole farming community in England, but it can be used to explore whether there are any similarities in their views, compared to the other (non-farming) respondents.

4.13.2 Attitudes towards AES

These members of the farming community were almost as positive overall towards AES as the wider countryside-user population who responded to the same survey.

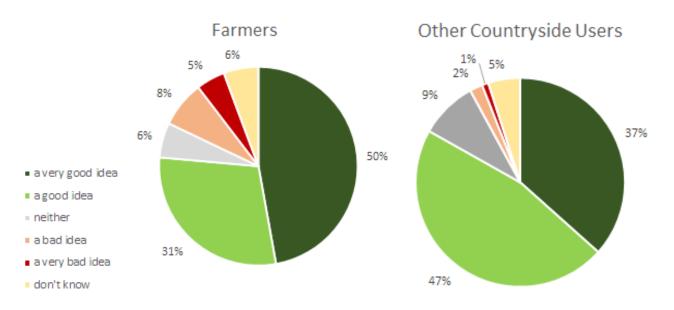
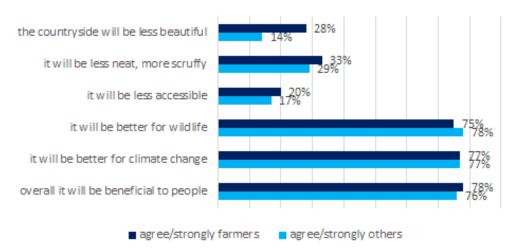


Figure 4.36: Attitudes towards AES, farming community (n=36) and other countryside users (n=461).

Respondents from the farming community had very similar views to the wider population on the perceived changes to the countryside that may arise as a result of AES; differences were no more than three or four percent across five of the six attitude statements that we presented to people. The exception relates to the statement "the countryside will be less beautiful", where twice as many from the farming community agreed with this view: 28% compared with the 14% from the wider population.

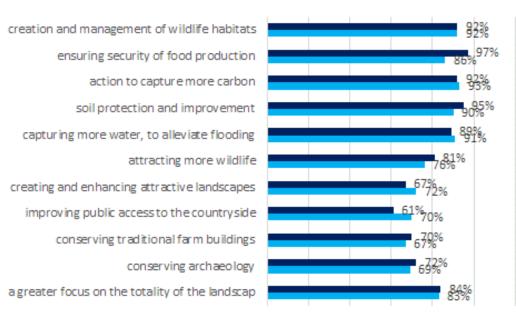
What changes do you think these schemes may make to the look and feel of the countryside? ...





4.13.3. Priorities for AES

The views of the two groups are almost completely aligned when it comes to thinking about the priorities for AES, with the differences between the groups being 5% or less on most of the priorities that they were asked to consider. The two principal differences were for 'ensuring the security of food production' where the farming community gave this a higher priority (+11%), and 'improving public access to the countryside' which was a lower priority for the farming community (-9%).



What do you think the policy priorities should be for these new agri-environment schemes:

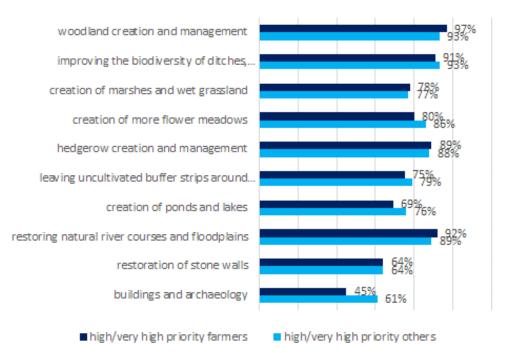
high/very high priority farmers

high/very high priority others

Figure 4.38: Perceived AES policy priorities, farming community (n=36) and other countryside users (n=428).

Views between the two groups were also very similar on the subject of priorities for countryside features. There are three principal exceptions where farmers thought the features to be a lower priority:

- buildings and archaeology a lower priority for farmers by 16%;
- creation of ponds and lakes a lower priority for farmers by 7%; and
- creation of more flower meadows a lower priority for farmers by 6%.



How great a priority do you think there should be for: ...

Figure 4.39: Perceived AES feature priorities, farming community (n=36) and other countryside users (n=418)

4.13.4 Other findings

Some other key findings from the research concerning respondents from the farming community included:

- They are much more likely to think that their local countryside landscapes have got worse over the past five-ten years 61% of farmers thought they had become worse, compared with 45% of other countryside users.
- They are more likely to accept the idea of some loss of views in order to achieve a more environmental and wildlife-friendly landscape 60% said yes to this, compared to 49% of other countryside users (views on the other choices were very similar).
- They were more likely to find the present image of the countryside attractive (95%, compared to 78% of other users) but both groups found the future image equally attractive (both rated the latter image attractive by 83%).
- However, they were much less likely to say that the future image was an improvement on the present countryside image – 31% of farmers thought the future image to be an improvement, compared with 52% of other countryside users.

To allay any concerns about the representativeness of the findings from the farming community, it is suggested that further research is conducted with a larger sample from this group.

4.14 Some conclusions from the survey

We detected at the outset of this study that there were some concerns that people would find AES to be problematic: that they would perceive future (post-AES) countryside landscapes to be uncared for (because they would look scruffy and unkempt) and that they might feel unwanted as a result of poorer access. Whilst these views were encountered, the large majority of people we interviewed were not concerned about these issues. Furthermore, they would accept most types of 'detrimental' change in order to achieve countryside landscapes that are more beneficial for the environment and wildlife. This corresponds with the overall findings from Rust et al (2021) in both the national survey and the regional workshops, which used a collage approach to 'create' preferred landscapes.

The main contribution of this study is the strong identification with local landscapes amongst the survey sample across ALTs. Also, there is an evidently strong concern about the ways in which changes are taking place that will affect wildlife and the broader environment. Because of this, there is strong support for AES since they imagine that these schemes will improve the environment or mitigate the impacts of climate change. To some extent, therefore, the actions and changes that are part of the AES seem to match the public's thinking – certainly, there is a willingness to see the changes that the schemes are designed to bring about. Nevertheless, there may be some issues about the *limits* to change, discussed later in the report, but otherwise not covered in detail in this study.

4.14.1 Next steps

Whilst the survey sample may not be considered to be representative of the views of the population of England as a whole, the decision to focus on 'countryside users' – as defined in section 2.1.3 – was deliberate, because:

- The study was designed to be both a manageable and affordable programme of research that responded to the study brief; this precluded a nationwide 'representative' survey.
- People who have little or no experience of their local countryside would be less able to judge the changes that AES may bring about, as they would have little or no direct experience of their local countryside currently.
- The survey was required to present visual representations (images) of the local countryside in numerous sample points in England. Whilst this might have been possible with an on-street survey, the time necessary to recruit and conduct face-to-face interviews would make the task too onerous.

If this issue remains one of concern, then a larger, national survey would be recommended. The survey would, necessarily, be conducted in-home with a fully random selection of households. Moreover, a sample large enough to provide about 1,000+ interviews with people who have experience of their local landscapes, would be recommended. Thus, the overall sample would need to be of sufficient size to allow those with no countryside experience to be counted, but possibly not included in the analysis of findings.

We do, however, see the case for further research in three areas:

- With **over-looked groups** who do have countryside experience, in view of the difficulties that were experienced recruiting participants (particularly women) in those locations with a higher proportion of ethnic diversity.
- With the **farming community**, to boost the sample from the existing 36 interviews to a more statistically significant number (100-200 is recommended).
- With the wider population, to focus on the issue of **community engagement in the development and future maintenance of the countryside**, in the light of changes that may be brought about by AES.

5. Qualitative review of public views on the effectiveness of AES for their local landscape

5.1 Introduction

This chapter sets out the findings from the qualitative research, conducted in August and September 2022. It presents and analyses the research participants' perceptions of their local countryside, and potential changes to it. The methodology underpinning this section is described in the earlier methods chapter. The qualitative research focused on innovative techniques, to be more immersive and supply a richness to the data analysis. All the approaches used were designed to be flexible to respond to Covid restrictions during the fieldwork period. All quotes are from focus groups unless they state otherwise, with 'VD' standing for 'video diary'.

5.2 People's use of the countryside and the benefits it delivers

5.2.1 Perceptions of 'local'

For most participants, 'local' countryside is perceived as being that which is easily accessible from their doorstep. Although not all participants have such access, even those living in towns like being able to walk out into open farmland, woodlands or hills. It is considered the ultimate experience to be able to have a special walk available beginning from your house, but if this is not possible then having countryside nearby is still valued. Most participants seem to 'rely upon' their local walks, cycles or horse rides and have a great deal of knowledge about the countryside they travel through on these occasions. Their connections with the local landscape appear to have increased during the COVID-19 pandemic and lockdown periods. Participants enjoy watching the same views and landscape features change during the seasons.

"I like the peace and quiet. I like seeing the changes. I might sit down by a tree and it might be the same tree. I sit at five or six times a year and I like seeing how the landscape changes or the environment changes. The old branch that fell off a tree that you've known since you were 10 years old and is now practically invisible. I remember when it fell off the tree and we climbed on it." Bowness/Windermere

Participants also consider 'local' countryside to be that which is, approximately, within a 10-minute drive from their house and which is used regularly by them. These places are used for something specific, such as an easily accessible path, facilities like a café, or a landscape different to their immediate one, for example woodland or water. They will travel further afield (approximately 30 minutes by car) for a more structured park, National Trust or Forestry Commission site. This is generally considered to be more of a 'day out' or is done to undertake a specialist activity such as mountain biking, bird watching or fishing. Countryside up to an hour's drive away is still considered

'local' by some participants, usually those who have a particular and regular outdoor hobby such as geo-caching¹³, cycling or climbing.

5.2.2 Benefits desired from the countryside

The primary benefit that participants desire from their local countryside is to escape to a space that is perceived to be more 'natural' than others they experience, which gives them a sense of freedom to relax and encounter nature/wildlife. This is expressed as time away from their screens and home working, time to focus on themselves or their families, have discussions and gain a different perspective on life. There is often a sense that the perceived permanence of the countryside or of nature had a grounding effect on them, especially in a changing world.

"My daughter was born up here. We have a field at the back so we've made swings in trees, we've made fires, exploring the lake we get back at 7 o'clock. It's great. It's freedom to experiment. Burn marshmallows on sticks. Informal chemistry experiments. A bit of risk taking maybe. Climbing." Bowness/Windermere

Aside from the 'feel-good factor' released from physical exercise, access to the countryside is often felt to provide time away from busy lives, expressed in phrases such as de-stressing, relaxation, having the space to think (or not to think) or to be mindful.

"I love the big, big Suffolk skies. I absolutely love having all of this sky around me walking out like this in the countryside just does good things for your soul and this week has been a busy week with lots of hospital appointments. It clears your mind." Thetford VD

Often, most participants describe benefiting from an improvement in their mental health by being in the outdoors.

"I have depression anxiety and I find that the outdoors is where I can decompress. I find I can just let go and it is kind of meditative, listening to the sounds and acknowledging the world around me." Battle/Hawkhurst

A few participants consider the countryside to be important for people's livelihoods and for the environmental benefits it delivers but to most, it also has 'meaning' in other ways by providing a sense of local identity or place. Landscape is felt to tell stories about the past, such as how farmers tilled the land or where specific historical events took place (the Pendle witch trials, for example).

"This particular place, I do geocaching. One of my geocaches is hidden in this bench. This is an ancient oak. This tree was pollarded when Lady Jane Grey died. It is hollow in the middle. That is an acorn. You can sit on this bench, you can think that it would have looked the same many years ago. All this mess is long grass, nettles, wild flowers. It is nice. It is a significant tree." Leicester, describing her picture.

Local landmarks, whether built or natural (i.e. landform and geology) are also part of such stories, anchoring people in their locality.

"These are the fields that often flood in winter time, in the distance you can see Charnwood Forest and Beacon Hill which was originally the site of an extinct volcano." Leicester VD

¹³ An outdoor recreational activity, in which participants use a Global Positioning System (GPS) receiver or mobile device and other navigational techniques to hide and seek containers, called "geocaches" or "caches", at specific locations marked by coordinates.

Sometimes, these features give a particular visual structure or flow to participants' preferred views, leading to them being perceived as more beautiful. The macro-level features most desired by participants are 'greenery' (trees, grassland, fields, hedgerows and hills) and water. At a micro-level, participants want these to be punctuated by details such as mosses/lichens, stone walls, farm buildings, paths and sunken lanes or 'green tunnels'. Participants enjoy encountering flora in the details such as leaves changing colour, the textures of bark, particular trees, blossom and berries. Seeing fauna such as hares, foxes, buzzards, kites and other birds was also important.

"I love walking along the canal and today I saw a kingfisher, zipping up and down, absolutely beautiful. Water attracts wildlife. It is a haven for wildlife. Wherever it is in the landscape it is very important: a river, a beck, waterfalls." Nelson/Colne

Sensory experiences of the countryside beyond the visual were mentioned by some participants, with sounds being especially emphasised.

"This my favourite spot; I like to sit here and have a breather. You can see the all the views of the hills and the towns, they're quite amazing. There's some kestrels hovering about, some swallows singing, plenty of insects buzzing in the heather. I can see all the cattle and the sheep in nearby farms. You can just about see the reservoirs that are almost empty. It looks a bit sparse up here at first glance but if you actually sit and listen there is so much wildlife. It is a really good spot to come for 10-20 minutes and clear your head and enjoy the views." Nelson/Colne VD

Both wide-open expanses and variety in landscapes are valued by participants, with green fields and farmland playing an important role in linking up their visual experiences.

"It is a mixture of everything I love. I love being by water, so I love Bewl. It is beautiful to have that open expanse. We park at the end of Rosemary Lane and especially in morning it is so quiet and beautiful. But I also like farmland, I love the fields; I love seeing the farm animals in the fields. The woodland as well. Where we are you can go through a woodland and come to a field. We have the spectacular views - you can turn around the whole area and look down on Goudhurst and Lambershurst and Bayham Abbey." Battle/Hawkhurst

5.2.3 Summary findings from the focus group drawings

Participants in the focus groups were asked to draw a picture that included the elements they loved within the local landscape, and then to describe why these are important to them; a sample of these is shown below, with more to be found in Appendix 10.9. Commonly, the drawings included a varied landscape, often with water; a visually layered landscape, such as interlocking hills; and local landmarks and landforms. The following provides example pictures, which are line drawings done with pen on paper from this activity to support the spoken responses analysed in the preceding subchapter.

Participants often depicted the countryside with wide open spaces, including a variety of landscape elements:



Figure 5.1: Stafford/Cannock ALT 4 Western Mixed drawings

Both Figure 5.1 drawings include hills, a winding river, some scattered trees, livestock and hedges/field boundaries. The one on the right includes a farm building.

Specific places and local landmarks featured in several drawings:

The Figure 5.2 drawing shows some conifers, a watercourse with a bridge, some wildlife and a castle or other heritage feature.

The Figure 5.3 drawing shows a lake surrounded by mountains with a castle to the left with sheep in the field, a tree to the right and a person on the lake using a paddleboard.



Figure 5.2: Battle/Hawkhurst ALT 3 South East Mixed drawing

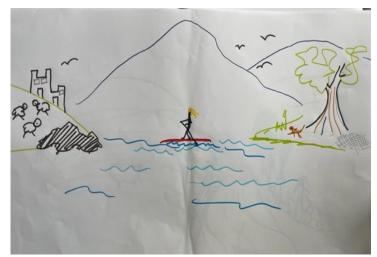


Figure 5.3: Bowness/Windermere ALT 6 Upland drawing

Macro-level details such as 'greenery' and water were commonly shown:

The Figure 5.4 drawing shows a prominent hillside stated to be Pendle Hill, with a small stretch of water in the valley edged with a few conifer trees.

The Figure 5.5 drawing includes two rivers, a large mature tree, a blackberry bush and some rocky outcrops.





Figure 5.4 Nelson/Colne ALT 5 Upland Fringe drawing

Figure 5.5: Leicester, Urban Fringe drawing

Micro-level details are also important to participants, who refer to livestock or wildlife.

Figure 5.6 shows two examples of line drawings. The one on the left is very detailed with a lot of flora and fauna, a large native tree in the foreground and a pond in the middle with a dragonfly and a duck-like bird on the surface. The one on the right focusses on specific species, including a hare, an owl, a frog, butterflies, a hedgehog and a wader amongst flowers and trees to represent biodiversity.



Figure 5.6: Thetford ALT 1 Chalk and Limestone Mix drawings

Farmland is an integral part of how some participants view their local landscapes:

Figure 5.7 shows an on-plan, map-style drawing with roads intersecting with farm buildings and fields on the left and Chicksands Woods on the right. Haynes village and more fields are also noted.



Figure 5.7: Bedford/Colmworth ALT 2 Eastern Arable drawing

5.2.4 Summary findings from the video diaries and interviews

The video diaries and subsequent interviews are also key to the analysis provided in this chapter. The videos, and the commentary that participants were asked to provide alongside these, illustrate the emotional connections they have with their local countryside. These attachments to place are demonstrated through participants' detailed knowledge of specific fields, paths and watercourses; landscape features that are well-known to them and, therefore, deeply ingrained in their individual experiences of their local countryside.

Key themes raised in the videos and interviews are similar to those discussed in section 5.2.2. These include:

- Health and well-being benefits, especially those related to mental health: many participants stated during their videos that they are more relaxed at the end of the walk/ride than at the beginning.
- The multisensory experiences of being in the countryside, such as seeing contrasting colours, and experiencing the different sounds and smells.
- Feeling seasonal rhythms through witnessing changing colours or hearing harvest activities.
- Having locally significant places, such as landmarks and heritage buildings; these may also narrate a place's local history.
- Viewing both the macro- and micro-level aspects of the countryside, from the field systems and hedgerows to fallen trees, gnarled roots and stumps.

5.2.5 Participants' interpretation of key terms

Having explored participants' perspectives on their local countryside more broadly, this section looks in more detail at their interpretations of key words that might be used in connection with descriptions of countryside and landscape. Specifically,

participants were asked for their opinions on the following terms: natural, neat, tidy, wild, scruffy and beauty. Understanding more about how participants interpret these terms lends depth to the analysis, and can indicate areas in which AES-driven landscape change might impact (positively or negatively) on their experiences of the countryside.

Most participants regard the current countryside as **'natural'**, and a chance to experience nature is often what they seek when they use their local countryside. So, to many participants, 'natural' meant 'of nature', with minimal human impacts; indeed, many assume that the countryside is all 'natural'.

"The more natural the better. The more things I see - just trees and grass, not a fence. The less interference I can see I prefer it. If I am walking along the river, I like it if I can't see boats. It's the woods I like when you can't see anything man-made." Bedford

When asked whether the countryside was all 'natural', some participants recognised that humans had introduced changes in the landscape and pointed to various 'unnatural' or 'less natural' elements, and sometimes to the time periods they most associated with these:

- fields created by medieval enclosures;
- changes to the landscape's appearance wrought by the Industrial Revolution; and
- an increase in field size as a result of the intensification of farming during and after the Second World War.

Conifer plantations and trees planted in a row are perceived negatively, because they are not regarded as 'natural'.

"Nature doesn't do straight lines."

A hedgerow seems to stand as something in-between the natural and the human-made. Although originally planted by humans – indeed, the traditional practice of laying a hedge is admired – it is perceived that nature takes over, with hedges then being a 'haven for wildlife'. They are considered as historically important and an easy way to watch the seasons change up-close. Participants often follow paths that track hedges on their walks, as evidenced in the videos and other qualitative research activities.

Participants generally think that **management of the countryside** is necessary, with certain aspects needing to be maintained and not left 'to their own devices'. Such views mostly appear to come from participants' understanding about conservation; for example, some are aware that interventions are needed for heathland or peat restoration. A few participants believe that past decisions need to be reversed in order to make things more natural once more; for instance, if rivers have been diverted by human action. However, some participants realise that issues of human intervention and **wildness** in the landscape are not easily resolved.

"I don't think it can ever be wild again because you are going to have to decide which period in history you want to go back to. Do you want to go back to Neolithic times or do you want to go back to Victorian times or perhaps into the 17- or 16-hundreds. Because there has been so many changes. And changes in agriculture. We used to be famous for Herdwick sheep but now when I go out and about I see all sorts of different breeds of sheep." Bowness/Windermere

Despite talking about some elements in the countryside needing to be 'managed' - for example, hay meadows and hedges - participants did not seem to want their landscapes to be **'neat and tidy'**. Such words are associated more with a parkland-type

experience such as a National Trust estate or garden, or the flowerbeds planted in a town centre or municipal park. Most do not want their countryside to look 'manicured', as this is negatively construed in such a context. Words such as 'controlled', 'regimented' and 'cultivated' were also used by participants in the discussions as synonyms for 'neat and tidy'. (Participants did accept that farmland is 'cultivated', but this is viewed positively as a separate category of land management practice).

There were differences of opinion about the extent of management or maintenance of the countryside that should occur. In some ALTs, the less frequent countryside users wanted things to be more managed, which to them meant more accessible.

"I am a Mum and I have pushchairs. I love the wild but I wanna be able to take my children. The stile, gates, nettles and brambles. It is really hard to go on a walk that is buggy-friendly 'cos of the kissing gates. I like a nice wooden five-bar gate that you can open!" Battle/Hawkhurst

Those who regularly used to countryside to walk their dog also preferred more management, while frequent users who liked to go beyond the well-trodden paths wanted less management.

'Wild' was regarded by participants as a positive thing, and the term was used for a variety of current landscapes, and interchangeably with terms meaning 'natural' or 'of the outdoors'. Participants felt that true wildness is found in other countries, particularly when wild animals are considered.

"The first thing that springs to my mind was buzzards. The only truly wild things are birds because cattle and sheep aren't. Even foxes. But I think of birds as wild." Nelson/Colne

However, wildness in England was positively defined in various ways by participants, with meanings including:

- isolated;
- silence and tranquillity;
- a variety of species;
- a lack of human intervention, countryside 'left to own devices';
- overgrown or unkempt; and
- re-wilded fields.

'Wild' was considered as generally more 'natural' and preferred, as long as participants can have access to the countryside elsewhere. Participants sometimes concluded that in England what they were looking for was a kind of 'managed wildness'. Campaigns such as 'no-mow May' could be considered to deliver such an approach. In addition, some participants stated in video diaries that they had noticed some changes to their local countryside, such as more buffer strips and hedges that were being left uncut. These **AES-driven changes** are interpreted by participants as leading to a 'wilder' countryside.

"For me, what I've found interesting is the change. Things have changed a lot. We are going back to seeing more meadows out in the countryside, which is encouraging species of wildlife that is good to see. The amount of hummingbird hawkmoths I've seen is absolutely unbelievable. I think things like that are encouraging. If I see the countryside is going more wild it is acceptable in my own garden. Lead by example, I am inclined to follow." Thetford

Quotes such as this demonstrate that some people are already positively integrating such changes into their current experiences and perceptions of the countryside.

Participants did not associate '**scruffiness**' with the countryside because they see this as a negative term and feel that the countryside and nature is already scruffy in a 'natural' rather than negative sense. Scruffiness or untidiness is commonly associated with human activity such as fly tipping, littering or a lack of maintenance to fences, walls and paths.

People's conceptions of '**beauty'** in the countryside operated on different levels. At a macro-level, beauty most often referred to a variety of elements and structure within different views, which together formed a pleasing 'picture' (it should be noted all participants were sighted).

"A variety of things; a lake, a woodland, farmland and if you have the opportunity for it in the same place that makes it beautiful. Wildlife is a bonus." Bedford/Colmworth

"The lines made by the stone walls give it a structure and something for the eye to follow that you wouldn't otherwise have. You don't want the flat countryside...but you don't want the ruggedness that you can't access. But it is a mixture of them both that makes the countryside both accessible and beautiful." Nelson/Colne

"It's beautiful. That's the view everyone would like out of their bedroom window. There is a bit of grassland, there's some trees. Farm buildings in the background. It will look different in winter covered in snow, in summer it will look green and farmed." Nelson/Colne

Additionally, participants described degrees of beauty in terms of intensity with some being gentler/simpler and some being more dramatic and having impact. Often it was connected to a distant view with patterns, such as interlocking spurs or a variation in height. At a micro-level, beauty is associated with colour, shape and light:

"Colour because people think the most beautiful times in the countryside are spring and autumn when there is most colour. So, you get different colours, either having different types of trees, evergreen or reddy leaves. The flowers add interest." Bedford/Colmworth

"My idea of beauty in the countryside is seeing a meadow of wildflowers or seeing a beautiful tree in full leaf. It doesn't have to be a full landscape - it can just be a small crop of wildflowers or seeing some nesting birds being fed by accident." Thetford

Beyond the visual, the word 'beautiful' was also used for a sensory experience; for example, hearing sounds in the trees that provoke a sense of wonder. An emotional response of feeling 'at one' with the landscape whilst moving through it was described as beautiful in terms of an interaction.

Although the term 'beautiful' was widely used for the countryside or for nature, it was not always deemed necessary to achieve mental health benefits. However, beauty, when found, would always elevate an experience. This can be contrasted to **'prettiness'**, which was used infrequently and sometimes even negatively. For example, the more frequent users of the Lake District associated prettiness with a certain 'tweeness', as opposed to the rugged landscapes they preferred. Elsewhere, the term pretty was used for wildflowers in the context of AES or local council verge planting. It often involved colour and a level of delicateness or intricacy such as seen in a fern or a butterfly. Whilst a few participants thought beauty was in the 'eye of the beholder' (Leicester), there were some common themes (see Figure 5.8).

Figure 5.8 is a Venn diagram grouping together participants' responses to better show the elements that make for a positive countryside experience, and where beauty fits into this. The three circles (beauty, meaning and reaction) relate to the sections of the discussion guide used for the focus groups and video diaries. Most participants would ideally like to experience all three – the middle spot in the diagram – but can gain benefits from each singly or in combination.

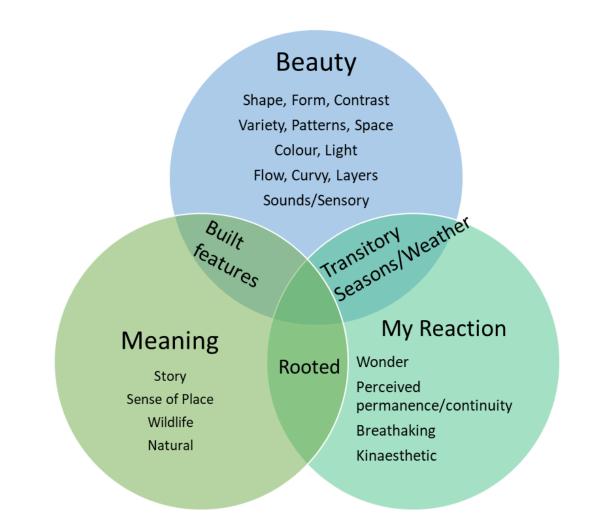


Figure 5.8: Participants' countryside experience model

The terms in the beauty circle derive from visual and sensory aspects of the countryside, as described earlier. The bottom right circle, entitled 'my reaction', represents participants' descriptions of their reactions and emotions whilst in the countryside. This element is experiential and embodied: it is dependent on their direct experiences as they move through the countryside. The bottom left circle, entitled 'meaning', is where participants have attributed stories or meanings to the countryside, for example by pointing out historical landmarks during the video diaries or by describing special places and their associated activities (current or historic) in the focus groups. A sense of place is strong in this circle, as is the fact that their surroundings were perceived to be natural. Nature here is perceived to be the opposite of being in a built environment, such as a house, place of work, town, city or urban fringe.

Overlapping on the right-hand side are transitory elements, such as the weather or seasons, which can make something beautiful when it might not have been considered so before, or intensify people's reactions. Overlapping on the left-hand side are built features, usually historic, which enhance both beauty and the meaning of the countryside. This was manifest in participants' descriptions during the focus groups and videos, with the following elements, among others, mentioned: railway and canal bridges, stone walls, barns, locally distinctive cottages and settlement, country houses, monuments, windmills and water towers.

5.2.6 Comparison with the Experiencing Landscapes project

The research team was asked to assess how the data gathered for this study compares to the previous two 'Experiencing Landscapes' projects (see Research Box, LUC and Minter, 2009 and 2011). This was done in parallel to the research, so the same team was involved in both. The cultural ecosystem services discussed by participants in this research echo those of the previous two Experiencing Landscapes studies (ibid). However, a number of factors are more prominent in this piece of research, including:

- A greater emphasis on the **mental health benefits** that can be gained during countryside use. This may be a direct result of the COVID-19 pandemic and associated lockdowns.
- A greater emphasis in this data set on sense of place. Again, this may result from COVID-19 lockdowns, where people were restricted to their immediate localities. Moreover, an increased use of local social media appears to have resulted in people becoming more rooted within their local communities; this possibly extends to the local countryside too. An increased level of local community engagement and volunteering was also found, and this occurs with organisations such as local nature reserves, the Woodland Trust, the National Trust, and the Canal and River Trust.
- A greater emphasis on **wildlife and nature** than in the previous projects. This may stem from an awareness and education gained from television wildlife programmes or the prominence of nature related issues in the news. It could be something to explore in future research.
- A more widespread understanding of the impacts of **climate change**, but still some lack of awareness of certain landscape features' roles in mitigating its impacts; for example, that boggy patches might capture carbon.
- A more widespread understanding of the various **functions of landscapes**, more than as places of food production but also carbon sequestration and flood protection, is also evident.
- Participants' **language** appears to have evolved, with people using ecological terms such as biodiversity, green corridor, carbon sink and species loss; such terms were less prevalent in the previous research. Some participants gave specific examples of the latter, naming bird and animal species that are in decline. Particularly, hedgehogs, insects and bees were mentioned.
- Participants express and exhibit **pro-environmental attitudes** more widely than in the previous research.

5.3 Landscape change

5.3.1.1 General changes to the countryside

By far the greatest change to the countryside perceived by participants was the loss of fields for **housing development**. The data shows that participants regard this as a huge threat to the countryside, with increased development shrinking the availability of green space to access. However, participants also felt that there has been an increase in access to the countryside or other green space, provided via footpaths, the promotion of trails in National Parks and the regeneration of old industrial sites. Most recently, though, participants felt that some local footpaths were neglected.

In some study areas, participants had noticed an increase in **tree felling**; for example, for the creation of bogland in the Lake District or for the production of timber in Battle/Hawkhurst. In other areas, especially the upland and upland fringe, new **tree plantations** were mentioned. In the Midlands, participants had noticed the planting of trees by the side of new roads and housing estates but some felt this was ineffective from an environmental perspective.

"Sometimes it is for the environment. I remember the phrase 'plant a tree in 73, plant some more in 74' and that was on beer mats and things and we realised we should have been planting, but they do need to be planted responsibly, they can't just be planted 'willy nilly'." Bowness/Windermere

Historic change to the countryside was sometimes connected with the decline of practices such as charcoal-making and mining (Lake District), hop-picking (Battle), farming and the 'saltways' (Leicestershire). The artefacts and landscape remnants of this type of change were regarded by some as positive and important reminders of local heritage. The Industrial Revolution was thought to have had a great deal of effect on England's countryside, bringing urbanisation and the mechanisation of farming; the countryside was imagined to be 'wilder' before this happened. Similarly, participants mentioned the changes brought by the construction of the railways and canals; these were thought of positively. A few participants stated that large country estates had affected the landscape through its management for hunting, or from the designed landscapes created by landscapes architects such as Capability Brown. Many participants cited the removal of ancient woodland over the centuries; they assumed this was to make space for human habitation. In the Lake District, changes to the landscape during the Victorian era were mentioned, along with the influence of the Romantic poets on this.

Ongoing changes – for example, present-day gravel pits and quarrying in Leicestershire – were not regarded as positively. Sometimes these were contrasted (negatively) to the regeneration of reclaimed sites. More recently, '**rewilding'** initiatives had caught participants' attention. **Community projects**, such as orchards or woods that are managed by local residents, were felt to be positive new changes. A significant amount of positive conservation change was also perceived as occurring through initiatives from wildlife trusts, the Woodland Trust, nature reserves, RSPB sites, Sites of Special Scientific Interest (SSSI) and the Canals and Rivers Trust.

5.3.1.2 AES-driven changes

There was relatively little awareness of AES; certainly, the term is not well-known amongst participants. When explained, participants understood terms like subsidies, set-aside or fallow, and some could talk about farmers providing 'stewardship' of the countryside. There was some negativity around perceptions of farmers 'chasing subsidies' or taking money and then not continuing with a scheme year-on-year.

Participants were aware that farmers sometimes cut hedges and that some landowners plant trees. Several participants recounted seeing 'margins, verges, or borders' in fields, and larger areas being planted with wildflowers. Some buffer strips were regarded as providing increased access to fields, although the term 'buffer strip' was not widely used. Other changes noticed on agricultural land were mainly those relating to crop types, increased planting of animal feed crops, more vineyards (Battle/Hawkhurst), a reduction in livestock grazing (Bowness), and less dredging/clearing of rivers and ditches (Thetford).

5.3.2 Responses to changes shown in the 'before and after' visualisations

The following section sets out participants' qualitative responses to the visualisations of AES-driven change. Participants in the focus groups were shown

'before and after' images of a location close to where they live, as described more fully in section 2.1.4 of the methodology chapter. Each visualisation included specific types of change that may occur as a result of an AES (see Appendix 10.8 for the full list of visualisations and a description of the changes shown in each).

The 'before' images were mostly regarded as fairly unremarkable, apart from the upland and upland fringe images which were felt to be quite attractive. On the 'before' image in Nelson/Colne, one participant stated:

"That's a combination of how an idyllic combination can happen between humans and farmers. You've got the woodland which is a haven for wildlife and you've got the fields you can walk in or the farmer can graze. The cattle, the sheep, whatever and no housing estates. That's how it should be. It is really good that the farmers are encouraged to look after the scenery and encourage the wildlife. Quite often they're encouraged to leave areas unmanaged ...they don't do anything with them, just so that wildlife can thrive. To most people that would be a scene I would like out of my window." Nelson/Colne

Overall, the changes shown in the visualisations were viewed positively, with participants feeling the images generally looked more 'natural' and more attractive in the 'after' scenarios. When shown, the repairing of stone walls was also considered positive. The changes were often felt to be quite subtle, and some were already being seen by participants in the landscape. Additionally, the changes were seen as quite small scale and so, if happening in small patches, field corners or short stretches of river, would not have a huge impact on participants' experience of the countryside. It was, however, deemed important that footpaths were maintained.

"That is the problem when I try to go out for a walk - all of the hedgerows that surround the paths are full of brambles and brambles just take over. I do like blackberry picking but honestly, the paths near me you can't access them unless you take secateurs with you to cut them back." Bedford/Colmworth

In some ALTs, especially those with predominantly arable land, farmers' fields were often not felt to be accessible to participants, so some changes to these areas did not concern them. There was a slight resistance to change when the productivity of a field looked to be reduced and a person wanted to ensure farmers' livelihoods were protected. Participants wanted reassurance that food production would be sufficient.

5.3.2.1 Hedges, buffer strips and wildflowers



Figure 5.9: ALT1 Chalk and Limestone Mixed, Thetford: before and after AES

The changes shown in ALT1 and ALT2 were considered to be very acceptable. This was particularly the case in ALT1, Thetford (see figure 5.9), where the 'before' image was not liked and the 'after' photograph was felt to be an improvement. Here, the buffer strip looked more natural to participants and featured a trodden path that seemed more accessible than the ALT2 version (see Figure 5.10, below). Some questioned the 'squarishness' of the wild patch at the top of the field in ALT1 (see figure 5.9) but recognised that this gave the farmer the option to plant crops on the rest of the field; it was, therefore, seen as a pragmatic way to make space for agriculture and nature on the same piece of land. Participants did not think the patch looked natural, but they liked the idea of leaving it uncultivated. However, many would have gone further with the initiatives, as shown in the collage activity (see section 5.3.3).

In ALT1, only a few noticed that the hedge had been allowed to grow up in the after image; those that did thought it looked a lot better. A loss of hedgerows had been experienced in ALT1 and ALT3; in the former this had been due to intensive farming and, in the latter, because they had been cut too short according to some participants. In general, participants favoured hedges and gaps in these being filled. Hedges were thought to be an important part of encouraging wildlife in many of the ALTs, although perhaps less so in the upland and upland fringe areas.

"There is a hedge all the way around it - looks like there is a gap, it doesn't look like there has been much left for any wildlife to grow at the edge." Thetford, ALT1 'before' image

"[The field] is big. It is too big. When a field is that big there must be some hedges that have been cut down." Thetford

Participants regularly followed hedgerows at various points on their outdoor walks and were already used to them growing taller and being 'wilder' than in previous years. However, they grew concerned if roads and footpaths were affected. Participants enjoyed looking at hedges and seeing berries grow. Participants were hopeful that reduced cutting would lead to more birds and insects, although they did not feel they had yet witnessed this.

"If they are either side of you, I quite like it when they grow tall because it is like walking through a big green tunnel!" Leicester/Colmworth



Figure 5.10: ALT2 Eastern Arable, Bedford: before and after AES The 'before' image in Bedford was recognised and well-liked by local residents:

"I think I know this area. I like it, it is nice."

"It looks good, it looks very green, clean, open. I think there is nothing disrupting it, any kind of building, anything in the way."

"It looks like it has been planted properly. Good use of the land."

However, the 'after' visualisation here was not favoured because participants thought the image looked 'superimposed'. That said, most enjoyed seeing the mix of flowers and the colours; it reminded them of what they had seen in verges or on roundabouts. A few participants thought it was unnatural to have a straight strip of wildflowers and felt the whole field should be planted, but most thought it was acceptable for the farmer to use the rest of the field for agricultural production. There was much discussion among participants as to whether the field was accessible for walking, because of the long grass. Many thought the field would not be accessible, and if it was, would expect a sign directing people to walk in-between the grass and flowers.

"I've seen some as you go into Charnbook. I think aesthetically it is nicer but as the only thing then is making sure that the footpaths aren't kind cut off coz I don't think anyone would want to walk through that. As long as the footpaths are maintained it is definitely an improvement." Bedford/Colmworth

Some participants have recently seen similar wildflower areas in their local countryside, and have noticed an increase in biodiversity (especially insect populations) in these areas.

"There are some fields where we are, that have been left and I am not sure if they've been planted as meadow, but these last couple of years the wildflowers, cowslips, the orchids and I have never seen so many insects just everywhere!" Battle/Hawkhurst

Although the qualitative research did not sample Oundle (ALT4), the future scenario (see Figure 5.11) was shown to some who thought it was a vast improvement, looking more natural/greener and providing better access to the field. They were used to seeing this type of buffer strip in fields local to them and knew how they would navigate it. Similar views were shown as positive in participants' videos as part of the mobile ethnography.



Figure 5.11: ALT4 Western Mixed, Oundle: before and after AES

5.3.2.2 Urban Fringe



Figure 5.12: Urban Fringe, Leicester: arable option before and after image

The field used in the Urban Fringe, Leicester images was well-known to local residents, with many being able to describe and name the buildings depicted in detail. Most were in favour of obscuring the view of the buildings with more tree planting, as shown in some of the after images (see for example figure 5.12, after image). The arable option 'after' image was thought by local participants to be unviable due to the fact that the field floods regularly. When shown to non-locals, however, it was thought to be a good combination of land use, with some for the environment and some for agricultural production; it was not necessarily appealing countryside to experience and was not considered to be an accessible place. As the field appeared to be 'split in two', it seemed to be difficult for people to understand the differing land uses, but most participants who were not local preferred it to the 'before' image. A few did want to revert to the 'before' image, preferring "what we've got now."





The agro-forestry option (planting the whole field with trees) was criticised because of the straight lines of the planting and the fact the species looked 'strange' and unidentifiable. This caused some debate in the focus group about tree planting practices, with many participants feeling they are 'too regimented' and therefore not 'natural'. However, participants knew that the field was prone to flooding and thought that the trees might help to prevent this. Others thought that introducing bogs might alleviate the issue, and some added these into their drawings on the baseline image later in the focus group session. This was where participants were asked to either add in any AES-driven changes they wanted from a list by drawing into a printed version of a baseline image or to leave it alone (see Methodology, section 2.2.2 for full details).



Figure 5.14: Urban Fringe Option, Leicester: heritage feature before and after image

The urban fringe heritage feature 'after' image (Figure 5.14), was widely seen as an improvement, being considered as more attractive, natural and good for wildlife; this was true of both local and non-local focus groups.

"That's definitely more appealing. I like the bushes down the slopes. It kind of looks like it has been softened." Leicester

People showed an interest in the historical features and the information board. Participants who used this baseline image for a collage introduced similar initiatives, although they were more conservative with the background ridge planting and tended to introduce longer grass and boggy patches in the field itself.

5.3.2.3 Agroforestry

The tree planting shown in ALT3 Battle, ALT4 Stafford/Cannock and ALT6 Bowness was mostly regarded as positive.





Figure 5.15: ALT4 Western Mixed, Stafford: before and after AES

In Stafford, the trees seemed to be acceptable, although some wanted more open access to the countryside. However, participants imagined they would be able to access open views from elsewhere and that the benefits outweighed the disadvantages.



Figure 5.16: ALT3 South East Mixed, Battle: before and after AES

Equally, the trees in the Battle 'after' image enclosed the field more, which would be unsatisfactory to participants unless an alternative, more open area was available nearby. In Battle, there was a little more resistance to this potential change, with participants wanting a gap in the trees from which to see the view; this opinion came from a group who already felt the landscape was sufficiently wooded.



Figure 5.17: ALT6 Upland, Bowness: before and after AES

In Bowness, participants liked the way the trees had a 'ragged edge', followed the landform, and seemed to include native species. They were pleased that they could see the stone wall and that there was less grazing in the field (although this was difficult to see from the image). Some participants in this group seemed tired of tree planting schemes.

"Why do you need to plant trees? Sometimes participants just plant trees for the sake of planting trees. The trees are taking carbon dioxide but other plants do as well, they don't need to be trees." Bowness/Windermere

The tree planting in the Nelson/Colne area (ALT5) was difficult for participants to spot. However, when it was pointed out, participants liked it because it 'blended' into the landscape better and was an improvement on the plantation behind.

5.3.2.4 Riparian landscapes



Figure 5.18: Taunton riparian context 'before and after' AES images

The three riparian 'after' images shown to participants were regarded as looking more natural because the lines of the river and its banks were less straight than in the 'before' image. When figure 5.18 was shown, participants thought the 'after' image possibly went a little 'too far':

"I quite like it on the left-hand side of the waterway. It is difficult. I keep thinking of it as a human and the beautifulness rather than the habitat, because myself I am not a big fan of having the grass in the middle of the waterway but I know for the wildlife that is a good thing." Thetford

Participants were, however, broadly supportive of the 'de-canalisation' or 're-meandering' of rivers. The latter term was well known in the Bowness upland area, as there was some local promotion of river restoration schemes here. However, the recent publication of the Kendal flood prevention plan had caused some controversy with fields being earmarked to be "deliberately flooded". There was some suspicion and need for public education about the benefits of leaving rivers 'to their own devices'.

The riparian images caused more concerns regarding access – both by foot and water – than the other scenarios; this was especially true of the Taunton 'after' image. A few participants pointed out that riparian changes might require some form of access compensation whilst they were happening, such as with increased wetland needing new boardwalks or bridges:

"I think rivers taking their own course is more authentic and you can get around it, perhaps with a footbridge." Bedford/Colmworth

Some changes could be regarded as letting rivers get too 'congested', something that many participants had experienced. The wilding of the edges was a concern if it meant 'silting-up', if the weeds were invasive, or if they were allowed to go too far into the centre of the water. This would prevent their use by boats, paddleboards and kayaks, and would stop people being able to see reflections on the water; both of these aspects seemed particularly valued by participants.

"There's areas in the river near Lamberhurst and I don't know whether it has been left or it is quite wild in places and it is not actually that beautiful. It is almost too much. And I think they've got an issue with the stuff that shouldn't grow. It is really overgrown and you can't even see the water as much. Is there a bit more in-between? Does it have to be really, really wild or really, really managed? Can it be somewhere in-between?" Battle/Hawkhurst



Figure 5.19: ALT3 South East mixed, Battle: riparian context 'before and after' AES images The riparian option in Battle (see Appendix 10 for larger images) was deemed to be more natural and better for wildlife, but again, participants thought that it looked too muddy to access.

"There's nothing worse than getting your feet wet early on in a walk. Having wet feet is not a good start." Nelson/Colne

Participants were also worried that the changes had caused the 'flooding' in the background and the research team needed to explain that wetter scrapes, ponds and the overflowing of watercourses were flood-prevention techniques rather than flood-causing actions. Those who liked to venture beyond well-trodden paths were pleased that they could still access the site and were not put off by the potential changes. Generally, it was often the case that more frequent walkers were happier with more overgrown edges.



Figure 5.20: ALT6 Upland, Bowness: riparian context 'before and after' AES images

In the ALT6 Bowness riparian 'after' image, participants positively viewed the removal of fencing, but in other areas participants were cautious about the lack of barriers along river banks.

"I would probably be quite cautious taking my children down there because you can't quite see where the edge is there and they are kids that like to explore and get close up to the edge and I wouldn't be 100% sure where their footing would be safest. Certainly, on the lefthand side it looks marshy so I wouldn't be going there but, on the right, it looks really, really nice but if I had the children, I definitely be keeping them away from the edge. It looks like it might be quite deep." Stafford/Cannock In the ALT6 Bowness 'after' image, the organic nature of the water's shape apparently made it look more beautiful. A few participants thought they had seen such a change happen in other places, perhaps closer to them. Some wondered if access to the water would be prevented but thought they could view it from the footpath instead. The key benefit was deemed to be an increase in wildlife, although some also thought that livestock could drink from the water. One person pointed out that the previous ditch was a remnant from an old AES, which led to a discussion about ditch maintenance. Some remembered ditches being 'cleared out' as a regular local activity, and felt they are no longer kept as well. A few thought the 'pond' would not be too 'ephemeral' and would, therefore, contain water all year round.

5.3.2.5 Grazing regimes

In ALT5 Nelson, Upland Fringe, participants saw relatively little difference in the 'before and after' images. Some thought the two images showed how the countryside would look at different times of year. On explanation, the concept of there being less grazing was concerning for some, who wanted to know if the farmer's livelihood was protected. Otherwise, the 'after' image was regarded as a good thing, since it showed stone walls having been repaired and an increase in native tree planting to soften field edges.



Figure 5.21: ALT5 Upland Fringe, Nelson: before and after AES

Some participants in the 60+ age bracket were keen to maintain the greenness of some fields. A few referred to the term 'green desert', implying that the green only comes from over-grazing and that browner fields were possibly better for wildlife. The 'before' scenario was felt to be beautiful already and the changes in the 'after' image did not affect this perception. Overall, participants felt that the landscape had a very strong character that could not be diminished by AES changes.

"The foreground has been left to grow wild. It is not grazed. Just as pretty though." Nelson/Colne

Grazing was regarded as a topical issue in ALT6 Bowness, with different views being expressed on its merits. A few participants knew the phrase 'sheep-wrecked', which had been used locally to infer that the landscape had been over-grazed by sheep. However, some participants had noticed a reduction in grazing and felt that it had been done too quickly and at too large a scale. There was a polarisation of views between those who felt that sheep grazing was integral to the local area's identity and those who believed the ecology of the area to be more important with sheep grazing not always helping nature. Sheep grazing was also regarded as an important part of the ALT3 Battle/Hawkhurst landscape. However, local participants in this area were more accepting of some fields being left to grow longer, because there already existed some diversity of field use. In this area, participants were used to seeing rewilded fields and were generally positive about it. In ALT5 Upland Fringe, it was considered important to have a variety of field use because this increases attractiveness:

"I think the variation. If you do look at a farm you've got maybe one field and the grass is quite low because you've got sheep in there, whereas one might have hay bales in and one might be left to grow as a meadow and they are all sort of neat little squares but they're all different and they are all different colours." Nelson/Colne

Longer grass in fields was acceptable if pre-existing access was maintained. However, participants in the Bedford and Leicester areas mentioned the potential wild fire risk. The unprecedented heatwave of summer 2022 had contributed to wildfires in these areas, and long grass fields had exacerbated these outbreaks.

"Whenever I see long, dry grass I get a bit nervous because there are big field fires in this kind of weather." Bedford/Colmworth

5.3.2.6 Transitionary periods

Participants were not too concerned about the transitionary periods during which potential changes to the landscape (as in the 'before and after' images) would be made. They felt some might be concerned if a digger was involved to create a scrape, for example, but it was believed this concern would pass or could be explained to the public using a sign or local media. Participants were only 'very concerned' about the transitionary period in the case of tree felling, and this was not relevant to the 'before and after' images they had been shown. Many participants wondered what was going on in specific fields each year and said they deliberately took notice of the farming practices there. Changes to field use were sometimes put down simply to crop rotation, but some participants suspected that fields were 'being left' to show 'lack of use' prior to sale for housing development. In general, there was a feeling that changes in the countryside, such as increased wildness, were not going to be noticed, as it would be a gradual process. Participants did want to be informed of changes to the countryside, and to have these explained to them.

"I don't think there is enough education about why things are done in the countryside and why things have changed." Nelson/Colne

5.3.3 Findings from the 'collage' activities

Towards the end of the focus groups and interviews, participants were given several images to which they could make 'changes' to the existing landscape views. In the online sessions, participants did this by dragging and dropping pictures onto the baseline image, thus making a 'collage' (see figure 5.19, below). In the face-to-face groups, they could draw onto the baseline image with pens, selecting from the following list:

- more woodland/trees on agricultural/pastoral/arable land;
- rushy/marshy grass;
- longer grassland, left unmown;
- wildflower field margins/buffer strips;
- wetter ditches;
- swales, ponds, bogs;
- taller, uncut hedgerows; and
- rivers/stream being left to take their own course

The resulting images have been used as part of the overall analysis, in combination with the output from other techniques.

The extent to which participants changed the landscape with increased 'scruffiness' or increased AES measures varied depending on their age group, with the older age groups tending to introduce slightly fewer changes and the younger groups introducing slightly more (see Appendix 10.10). A few in the 60+ age bracket made no changes at all, while a few in the 18-30 bracket filled the baseline image with changes, including occasionally wanting walls and fields to be completely removed. This was a rare opinion expressed, whereby a radical approach to rewilding could be adopted with no field boundaries so as not to impede the movement of wildlife and return to how it was before the boundaries existed.

However, most participants made moderate changes, resulting in a balance between environmental measures and agricultural production; this approach may have been informed by the preceding discussions – especially those on AES – in the focus groups. In addition, the exercise seemed to indicate that participants were willing to accept more visible changes than shown in the 'after' images, especially when thinking at the scale of an individual field.

Often current field patterns were maintained, far-reaching views were kept and landform was followed. The most likely changes were to introduce wild flowers and solitary trees, followed by treelines or hedgerows and stretches of water. The options chose less frequently included boggier areas, wetter ditches and rivers being allowed to take their own course. When they were chosen, participants often wanted reassurance that such changes would not get 'out of control'. Nevertheless, most participants were happy with introducing a boggy patch or pond in the corner of a field, perhaps on the opposite side to the footpath; some were hopeful of seeing frogs, dragonflies or perhaps a heron.

"Is it on farmers' land or land we have access to? If it is on farmers' land then fine." Battle/Hawkhurst

"It's access, it's the planning and the thought that has gone into it. Not just bogs everywhere." Battle/Hawkhurst

"There is a ditch around my estate and I am plagued by mozzies. I do avoid boggy areas generally." Bedford/Colmworth

Figure 5.19 (below) shows five collages completed by research participants. They were completed online whereby the participant was shown one of the baseline images with a number of digital icons or mini pictures that could be dragged and dropped into the original image. The participant directed the researcher as to where the extra images should be put. Each of the extra images represented an AES change, such as a tree or a grassy patch.

The top left-hand collage shows a field with extra wildflowers inserted in the foreground by the participant with nothing in the background to retain the views. In the top right-hand collage, the participant added an extra tree line into a field, along an existing boundary in the background, a single mature deciduous tree to the left in the foreground and a couple more on the right to replace a dying tree. They also inserted a marshy pond, a bog and some wildflowers, mostly covering the field completely. The middle collage to the left was embellished with a solitary mature tree on the horizon, a hedge to replace the line of a fence, a wildflower patch in one corner of the field and a boggy, grassy patch in the other. Some of the field is left to grass. The right-hand middle field was changed by adding a line of small trees along a field boundary, introducing a wet bog down in the hollow of the foreground field and some extra trees were scattered in the foreground. The background hill was left alone. The bottom collage was an

arable, ploughed field where the participant added extra grassy areas, wildflowers and a boggy patch along the line of the existing hedgerow on the margin of the field all the way up. They also added two mature trees in the middle of field separated at an interval, leaving much of the field still as arable.



Figure 5.22: Example outputs from the online 'collage' games

5.4 A wilder future and AES-driven change

5.4.1 Perceived positive factors

Participants understood the reasoning behind the AES-driven changes (when explanations were provided) and agreed with the intentions behind these changes. Most of the visual changes shown were not of concern, and participants did not feel that it would spoil their enjoyment of the countryside. This would only occur if paths became inaccessible (from long grass or taller hedges) or if some views to iconic landmarks were obscured by taller hedges or trees); participants did think that special far-reaching views from high ground and beauty spots should be maintained. However, such views are often seen from sites which are already protected by a landscape designation and were not, therefore, considered as 'farmland' on which an AES may be implemented. A few participants thought there could be an increase in tree cover on some hills and less visited places. Participants thought that the beauty of their countryside views would not be negatively impacted by AES-driven changes, because the changes would be in a kind of patchwork or pattern (such as rewilded fields or field corners), and may even make things more beautiful as a result of the increase in species and variety to look at.

"If you like nature and you want it to thrive, you're happy to go with what the best course of action would be, and if that is that the view will be a bit scruffier and that will have a big impact on the environment, and that is still beautiful. There is beauty in everything. Like in Todmorden, there is the wind farm on top of the hill and a lot of people don't like how that looks but I've been brought up with that and actually I like to go and visit that and I like how that that looks and I know that it does good." Nelson/Colne

"We need a greater diversity of habitat full stop and we are just going to have to learn to live through all of these things really." Leicester

As previously discussed, participants prefer their countryside views to have both variety and structure, with fields, hedgerows and height variations in the landscape; the potential changes from AES were not felt to threaten these aspects. However, if taken to the extreme, participants did not want all fields to look the same or for the wild spots to all blend into one.

Many of the visualisations were not felt to change the amount of openness that participants wanted in their countryside. Taller hedges and tree planting may possibly change this, but again, participants felt the scope of potential changes would not be an issue. They still imagine that there will be plenty of open spaces to access. The feeling of open sky was very important to many, especially in the lowland ALTs, but participants also enjoy the experience of enclosure within woods and 'green tunnels' formed by hedges or when trees grow up over a path. That the countryside may look more 'natural' was perceived as a positive factor, as was the hope that participants might encounter more wildlife - for example, butterflies and insects.

There were very few participants who were unconcerned by the potential impacts of climate change on the countryside. Therefore, once participants knew that some of the measures being discussed would help with carbon capture, most accepted that those changes needed to be made. A strong level of support for the reasons behind the AES change was exhibited. Most see the changes as not being widespread and believe that they would not be applied everywhere; this meant they would always be able to access more managed places if they wished.

"I would like to see more rewilding in quite big areas, but I agree it is horses for courses, but there are clashes with the countryside management. There are lots of areas

that people visit less often, so I think I'm quite happy for them to make quite ambitious schemes." Bowness/Windermere

"For wildlife that is going to be far better. The fields are not being fertilised so that will be better for the water. But whether people are going to be able to access it – well, they are probably not going to be able to. For me it would be good to have areas like this, that you can't access and also have areas where you <u>can</u> enjoy this kind of beauty." Thetford

5.4.2 Summary of participants' criteria for AES-driven change

The main criteria that participants felt necessary in order for AES changes to be deemed acceptable, were:

- continued local access to the countryside, but not necessarily at the site in which changes were to take place;
- retention of the character of locally iconic places;
- safeguarding views of local landforms and landmarks;
- maintaining a degree of openness for access to the countryside;
- providing opportunities to see clear water surfaces; and
- maintaining variety within the landscape.

Some participants felt the ability to **access** the countryside could potentially be affected if some of the changes were introduced. Fields that were left to grow would likely be avoided by participants unless there an obvious path. Wetter areas would also be avoided, and wilder river edges were felt to need some form of access at intervals. Participants assumed that there would always be countryside available to access outside of the sites where AES were implemented. Overall, they did not think the AES changes would spoil their experience of the countryside.

There was a concern amongst some participants about the AES-driven changes potentially reducing a farmer's income, but this concern lessened when they understood the voluntary nature of the schemes. A slight majority of participants were worried that the extension of AES might jeopardise the **future of farming**. Many participants needed reassurance that there enough land would remain for **food production**.

"Having rewilded areas and some boggy areas for wildlife, without taking away the amount of fields for food production - seems to be a lot of fields used for animal feed rather than humans." Battle/Hawkhurst

The changes that participants saw in the 'before and after' images were felt to be subtle. However, some participants were worried about the scale of the changes, especially when discussions of 'wildness' occurred, as they aligned them with '**rewilding'**; this is felt to be more dramatic and extensive. Some participants expressed reservations about rewilding in the discussions on wildness because, although they believed that climate change mitigation is important, they did not want the countryside to look unmanaged. The fear seemed to be that 'rewilding' was equated with a lack of maintenance of the countryside. Some believed rewilding was more suitable in more isolated places or individual sites, rather than as a blanket approach. Participants wanted areas with good access for disabled people, but also for the less adventurous.

"I'd probably like it more managed than wild, but managed sympathetically. More managed paths and things, rather than not." Bowness/Windermere

Another way of looking at whether possible future changes are acceptable is to consider whether any of the AES-driven changes would mean participants losing 'the landscapes they desire', as covered in section 5.2.2. The schemes could give greater visual landscape variety and result in more wildlife – both of which participants wanted – but might they decrease access, openness, space and freedom? Rackham (1986) identifies four ways in which landscapes can be 'lost' to people. These are: loss of beauty, loss of wildlife and vegetation, loss of freedom and loss of meaning. Comparing the results of the qualitative research to this typology can provide a way to synthesise how future change might impact upon people's enjoyment of the countryside. The research seems to show that participants are not concerned about the scale of changes shown in most of these respects, with the exception possibly of access/freedom. Additionally, some may experience a loss of meaning if land is removed from agricultural production or access (even in terms of views) to historic features/landmarks is blocked. Participants seem to think there would be an increase in beauty, and certainly in wildlife and vegetation.

5.4.3 Differences in participant opinions

Although most participants broadly accepted the potential changes presented to them, there was a spectrum of opinions.

Younger participants tolerated a greater degree of change and sometimes asked for changes to be more extensive; for example, extending wildflower planting beyond a buffer strip to a whole field. However, even those who self-identified as very ecologically minded thought that a maximum of around 25% of the land should be changed by AES or rewilding; anything above this figure was considered to alter the countryside too much.

Those who were **less frequent users** of the countryside were most concerned about the loss of access. In addition, more frequent users of the countryside for purposes other than walking (for example, horse riders, paddleboarders, canoeists and boat owners), were slightly more resistant to change on the basis of potential reduced access.

There were also concerns about **aesthetics** and also the wish for measurable evidence that the changes would result in an increase in wildlife.

"I like the views and I worry if [hedges] are too high - will they take the views away? How much more wildlife would they encourage?" Battle/Hawkhurst

Some participants sought a balance between environmental and agricultural purposes, and expressed concerns about food production and farmers' stewardship of the land:

"Somewhere in the middle so the farmers are supported to farm in less intensive ways and they can use the more traditional methods for nature and still make a living at the same time. Less intensive, wildflower edges. Old-fashioned ways." Battle/Hawkhurst

Some participants were pragmatic about the potential changes, and felt that they would not notice incremental change. Moreover, they believed a **new 'normal'** would come to be accepted.

"As a user of the countryside I don't actually notice the changes because nature happens so slowly. I'd have to be taking a photograph every year." Nelson/Colne

A few participants did resist the changes shown and preferred no change at all:

"You don't want them to change anything, we want to leave everything exactly as it is given a choice, if you are going to mess about with it try not to make it worse. Leave it alone, we're all happy with what we've got at the moment, whereas if you start changing too many things then it changes the character full stop, even if you try and make it pretty." Leicester

5.5 Landscape character objectives

The project team examined whether having an objective within AES relating to landscape character was appealing for participants. As participants do not use the terminology of 'a landscape objective' it is not possible to ask the question directly because they do not readily understand what it means. From the fact that participants had already stated that they value what countryside they have, including how it looks and how it anchored them in the locality, it implies that they want an element of continuity. Many wanted to keep and preserve 'the countryside', possibly without knowing whether it was indicative of a particular landscape character 'type' (NCA).

Whilst a degree of change through AES is acceptable, certainly as shown in the images, and especially when for the purposes of nature recovery and climate change mitigation, the existence of an objective linked to the landscape they value is welcomed. This is expressed by way of stating that they want to ensure any future wider scale or more radical AES change doesn't alter things too significantly. Or they would also phrase it by saying that these changes could only be limited to certain fields or in field corners. Another type of statement made was not wanting the AES to be 'blanketly' applied or that AES change could still be 'in keeping'.

Essentially, participants did not believe that many of the AES changes shown or described would alter the fundamental character that much. Those with the most concern for the environment and biodiversity were most comfortable with higher levels of change once being told of the benefits of the AES, and were willing to make compromises on character as a result. Most thought a balance could be easily struck between preserving character and having environmentally conscious AES and that the two need not be mutually exclusive.

In summary, it is possible that this aspect also required some knowledge about how AES function regarding priorities such as biodiversity, climate change and water quality. Therefore, this is perhaps a rather complex area for participants to assess and alternative ways of describing the question would need to be identified in further research. What is clear is that people relate to a 'sense of place' and do care about the landscape and its appearance. In the meantime, this section considers whether participants had a perception of local character in the first place, above what has already been shown, as a route to exploring the issue. The following therefore sets out the type of area-specific elements that participants valued and hence what they might see as 'character':

Table 5.1: Participants' perceptions of the character of their local area, by ALT

ALT1 Thetford

In Thetford there is a connection to arable land and fields, and further away to wetter fenland, the Broads and coast. With a predominantly rural feel, it was regarded as a flat landscape with big open skies. Many enjoyed using Thetford Forest, although not those seeking peace and quiet. Heathland was also mentioned as a specific local type of landscape and a few referred to 'The Brecks' (see Natural England 2015, NCA Profile 85). Large oak trees were considered characteristic of this area, as were the windmills dotted across the landscape.

ALT2 Bedford/Colmworth

Participants in the Bedford area considered their countryside to consist mainly of agricultural land, sited in-between significant areas of urban intrusion into the countryside and threats of further housing development. Landmarks were pointed out as local features, including water towers, the Hangars at Cardington and the Greensand Ridge area of higher land. For recreation, the local Chicksands Woods and Grafham Water reservoir were highlighted. The River Ouse was a key feature and concern about flood risk was mentioned locally (St Neots). Large country estates were felt to give space and structure, and add a certain type of beauty.

ALT3 Battle/Hawkhurst

The characteristic landscape of this area was perceived to be pastural farmland interspersed with hilltop villages and low rolling hills. Participants felt an affinity with a productive farming past - for example, through the area's hop-picking history and the sight of oast houses. Participants felt there was a good patchwork of hedgerows and deciduous woodland. An attachment to the local Bedgebury Forest and Pinetum was expressed. Bewl Water Countryside Park was appealing for recreation and beauty. Participants also felt an affinity with the nearby coast and local waterways.

ALT4 Stafford/Cannock

Cannock Chase was a predominant feature of the local countryside with a strong character described with far-reaching views. The conifers and gorse were mentioned positively and some patches of water described. In addition, participants mentioned the green fields on flatter land; these were not particularly valued by participants, and were regarded as inaccessible. Further afield, 'The Wrekin' was mentioned as another prominent feature. Overall, the local landscape has many busy roadways and motorways and was surrounded by urban fringe, but participants seemed to be accepting of this.

ALT5 Nelson/Colne

The local countryside was valued for its upland nature with the significant landform of Pendle Hill dominating. Another feature was Blackaw Tower, giving a strong sense of place. The views were considered to be special and the openness of the hilltops was regarded as important. The pasture land was characteristic with sheep grazing and some stone walls. Solitary farm buildings were a feature here and there. Views down to local settlements were part of the landscape and in the valley the canal and local woods gave an extra dimension to the area.

ALT 6 Bowness/Windermere

The local character of the countryside was considered to be particularly strong. Although participants talked about the area local to Bowness and Windermere, there was a general affinity with the landscape further afield too, as far as Langdale and Rydal Water. Locally, School Knott and Post Knott were highly valued. The iconic shapes and landform of the fells were strongly significant in defining the character but the intrusion of tourism in the honeypots was described as difficult to navigate. For some, the gentler landscape with fields, stone walls and woodlands was less busy and could provide refuge and a place to be alone. The presence of farmland was important to participants and considered to be historically significant in the landscape. Outdoor recreational activities were fundamental to the area's character.

Urban Fringe Leicester, Soar Valley, Charnwood

The local countryside provided a good amount of variety with the water meadows, canals and rivers, the higher craggy points of Beacon Hill and Bradgate Park and

gently rolling farmland. 'Old John' – the highest hill in Bradgate Park – was often cited as a landmark or local anchoring point, giving a sense of place. A sense of history was provided by the canal infrastructure and old villages linked by the 'saltways'. Urban intrusion came from motorways and industrialisation, but the character also came from the presence of granite and associated quarrying activity. Flooding was regarded as a threat to the countryside here, as was encroaching urban development.

Most participants generally did not think that the changes discussed would affect the local character or distinctiveness of their countryside, or their sense of place. This was especially true in areas which had, according to the participants, a particularly strong, pre-existing feeling of local character, such as Nelson/Colne, Battle, Hawkhurst and Bowness. They thought that the existing landscape character would remain after any such changes. The ability to see Pendle Hill and Blackaw Tower, for example, or the rolling hills around Hawkhurst with village settlements on high ground, would always be there. In places like Leicester, the anchoring view of Old John and its folly in Bradgate Park would remain, as would the canal system. In Stafford, participants believed Cannock Chase would always be an accessible part of their local identity and in Bowness it was felt that the power of the National Park meant that local landscape identity would not be eroded.

"For me the character is granite. And by planting stuff it's not going to affect what the landscape is formed around." Leicester

"Retain the character. Leicestershire is interesting because of its diverse character, rolling hillsides in the south and the east, Cragland in the north west and Loughborough right in the middle. Charnwood, river valley - so how you would maintain that without destroying the farmer's livelihood and over wilding? You don't want it over wild. I don't know if it had reached its most beautiful or whether that was 20/30 years ago. I remember it was different but I don't remember if it was more beautiful." Leicester

It is noteworthy that many of the characteristics described by participants were historic features or landscapes, which were perceived to be 'permanent'; few seemed to realise that these may also need maintenance.

In order to answer whether participants would like a landscape objective to be part of AES, further exploration is needed as to whether any of these valued elements of the countryside would be jeopardised by AES implementation. This current research gives some hints that participants think that landscape 'character' could be enhanced by the schemes, for example, in ALTs 1-4. Potentially they believe that flood alleviation capabilities might be enhanced, but that the countryside's provisioning of services might decrease.

5.6 Future engagement or communication

This section briefly sets out some initial indications of the messages that might be fruitful in gaining public engagement. However, they would need further development, research and testing, as this study was only small-scale. Initial findings suggest there are several areas in which public knowledge could be increased:

• For example, most participants initially assumed the changes were being made for wildlife, with only a few spontaneously linking them to increasing carbon capture, helping with climate change or preserving the historic environment.

- There was an awareness among participants of peat as a carbon store, but less understanding that bogs and water also capture carbon.
- There was good awareness that planting trees could help sequester carbon, but not that they could help with flood alleviation. Those who were not aware of this before the research seemed to find it an interesting and important fact to learn.
- In the riparian scenarios there was a greater need to explain flood prevention techniques; upon hearing the explanations, the acceptability of potential changes increased. There is a need to allay fears here by explaining flood prevention techniques.
- Some participants understood that 'the wrongs of the past' need to be righted, but such an approach could alienate those who are more resistant to change.
- Participants wanted changes to be communicated locally, so people understood the reason for them. Certainly, participants thought there was an appetite for getting involved in some of the schemes if the landowner was amenable; for example, encouraging schools to help create wet areas in fields or monitor the biodiversity uplift over time.

The climate change argument for AES, when known, is a powerful message that appears to lead to an acceptance of 'wilder' landscapes generally. It easily alleviates many participants' concerns, although scientific explanations for why such changes may be needed are not sufficient for all. For some, appeals to the 'heart' not just the 'head' are necessary. These may come from two areas:

- the possibility of saving some species through potential increases to biodiversity (there is awareness of species loss); and
- a nostalgia for a perceived more 'old-fashioned' way of managing the land. Generally, this means less intensive management and a resultant more 'natural' look.

5.7 Summary and recommendations for further research

The qualitative research echoes the quantitative survey by identifying that there is a strong degree of positive consensus about the 'after' AES images shown. The research participants generally agreed that the changes were minimal and would not impinge on their enjoyment of the countryside. They were also supportive of the reasons for AES in terms of the ecological impact, potential climate change mitigation and possible improvements for wildlife and biodiversity.

- Those who were less frequent users of the countryside, families and some less confident participants were concerned about whether the schemes would reduce **access**. More frequent users felt they would get around impassable areas easily. Some changes were perceived as implying that there would be no access, whilst others seemed to increase the perception of accessibility.
- When thinking about the schemes at a larger scale, there were also some concerns that certain features, such as historic landmarks or iconic landforms might be obscured for example, by tall hedges or more tree planting (although most thought this unlikely). Additionally, many liked having structure in the landscape and did not think that AES would obscure visual patterns because not all fields would be affected.
- There is a higher degree of concern about the potential changes to **riparian zones**, with a need to explain flood prevention techniques. Some participants did not like

what they perceived to be the 'congestion' of rivers by vegetation; concerns were about the impacts both visually and on recreation.

- Once participants knew the benefits of the proposed AES, and if it was deemed to fit well
 into the landscape, participants thought it would be acceptable for the measures to be more
 extensive. However, this research has not pinpointed exactly where the limits of this
 greater extensiveness lie, with regard to an expansion of future AES or 'rewilding'
 techniques generally.
- Many participants needed reassurance that the nation's **food security** could still be ensured, but a few thought this was not an issue.
- The research shows that many participants were happy with a level of increased wildness, which they regard as looking more natural. However, some also called for a sort of 'managed wildness'.

Further research should explore how to **communicate the benefits** of AES, as there is not widespread awareness of these. In particular, a focus on these together with climate change mitigation techniques seems to be a fruitful approach to gaining public support for such schemes. The research suggests that practical engagement ideas should be tested at a local level.

More targeted or more dramatic changes to the 'after' images could be designed and researched to explore specific issues, such as:

- access or perception of access;
- potential perceived effects on character, local distinctiveness or beauty; and
- perceptions of openness or structure in the landscape at a larger scale.

There could be further research, although possibly not only from the perspective of AES implementation, designed to look at public views on landscape change from various sectors of the population. This might encompass the views of:

- low, very low and non-users of the countryside;
- different attitude types along an environmental and/or farming standpoint spectrum; and
- age, life-stage and generational differences.

A dedicated study could drill down into perceptions of riparian changes, exploring the reasons behind why they are regarded as more problematic than other potential zones of change.

Other studies focused on urban fringe areas or heritage could also provide greater depth to the analysis presented here.

6. Comparing the relationship between public and professional views on AES effectiveness for landscape

6.1 Introduction

This section of the report explores the extent to which the public views about the landscape effects of AES correspond to the findings of technical assessment. To do this, it compares the quantitative and qualitative survey findings with the result of the 'Rapid Survey'¹⁴ which assessed the landscape effects of Environmental Stewardship (ES) scheme options in almost 600 locations across England. The comparison identified a number of areas of agreement, but also areas where the views of the public were different from the findings of the technical assessment.

Rapid Survey

The Rapid Survey was a systematic, field-based survey that assessed the effects of ES options on the landscape, covering almost 600 locations across England. Effects were assessed using a standard classification of effects (enhancing, conserving, maintaining, neutral or detracting) with a set of 'decision rules' to ensure consistency across the survey locations. These decision rules are provided in Table 3.2 and Appendix 3 of the Rapid Survey report. Analysis of the survey findings was carried out for individual scheme options, National Character Areas (NCAs) (though survey numbers were insufficient to allow robust findings across all 159 NCAs in England), Agricultural Landscape Type (ALT) and options grouped by landscape theme. This comparison of public views and technical findings is mainly focused on the results presented by ALT and landscape themes.

National Character Area key characteristics

The qualitative work gathered information on 'valued and characteristic features' in each survey location. This part of the report also compares the features, characteristics and qualities that people described with the Key Characteristics defined for the corresponding NCA¹⁵.

Presentation of analysis and findings

This section of the report is structured around the pairs of 'before' and 'after' photographs illustrating the effects of AES, and the ALTs within which the quantitative and qualitative surveys were carried out. It adopts a standardised structure comprising the following sections:

• a summary of the effects of ES options on landscape character for all Rapid Survey locations within the relevant ALT;

¹⁴ LUC and Rural Focus (2016) Monitoring the contribution that Environmental Stewardship is making to the maintenance and enhancement of landscape character and quality - Report of the Rapid Survey (2014-2016) ¹⁵ https://nationalcharacterareas.co.uk/

- a summary of the effects of ES options on landscape character for all Rapid Survey locations within the relevant ALT, for each of the landscape themes relevant to the changes illustrated in the 'before' and 'after' images;
- where relevant, a summary of effects of specific options relevant to the 'before' and 'after' images, drawn from the whole Rapid Survey sample;
- a summary of findings from the Rapid Survey locations closest to the Quantitative and Qualitative survey locations these are small in number so the finding are not statistically significant;
- a standardised summary of the quantitative and qualitative survey findings for the 'before' and 'after' images and ALT in question; and
- a comparison of the public views and technical findings, highlighting and exploring the degree of agreement or disagreement.

This approach necessarily results in the repetition of some material reported earlier, particularly relating to the quantitative and qualitative survey findings.

Overview of comparison of technical and public perception findings

Table 6.1 provides a high-level summary of the level of agreement between the technical and public perception findings.

It suggests the highest agreement tended to be in lowland landscapes judged by participants to be moderately or less attractive compared to others within the sample. In these locations, findings from both the technical and public perceptions pointed to AES resulting in noticeable improvements in the character of the landscape in relation to the enhancement of margins, wild seed mixes, hedges and, in less wooded landscapes, tree planting.

By comparison, there tended to be lower levels of agreement in the following circumstances:

- Examples illustrating changes to the water environment (e.g. rewetting, naturalisation, enhanced wetlands and scrapes) were generally less well received by the public than the technical assessment would suggest. In some cases, this reflects higher levels of appreciation for the 'before' image, but it is also a product of people's concerns about issues such as accessibility to the water, safety and excessive vegetation.
- Examples illustrating changes in upland or upland fringe landscapes were also less well regarded by the public than the technical assessment would suggest. This appears to reflect the high levels of appreciation for the landscapes shown in the 'baseline' images and a concern about landscape change within the upland.
- Examples illustrating tree planting in already well treed landscapes, raising concerns about the loss of views and an increased sense of enclosure.

Table 6.1: Summary of agreement between technical and public perception findings

ALT and landscape change scenario	Level of agreement
ALT 1: Chalk and Limestone Mixed	High
ALT 2: Eastern Arable	High
ALT 3: South East mixed – arable reversion	Moderate/High
ALT 3: South East mixed – tree planting	Moderate/High
ALT 3: South East mixed – riparian	Moderate/Low
ALT 4: Western Mixed – buffer strip	High
ALT 4: Western Mixed – woodland planting	Moderate/Low
ALT 4: Western Mixed – riparian	Low
ALT 5: Upland Fringe	Moderate
ALT 6: Upland – Riparian	Moderate/Low
ALT 6: Upland - walls, low input grassland, tree planting	Moderate/Low
Urban Fringe – hedges, tree planting, arable reversion	Not included in Rapid Survey
Urban Fringe – agro-forestry	Not included in Rapid Survey
Urban Fringe – archaeology, hedges, scrub	Not included in Rapid Survey

Analysis of quantitative findings suggest there is an inverse relationship between the value that people attach to the baseline landscape image and the extent to which they consider changes illustrated in the 'after' image to be an improvement. This is despite the aim of many options to maintain, enhance or restore landscapes and deliver wider environmental benefits. This suggests a gap between the objectives of AES and the values that people attach to the more valued landscapes.

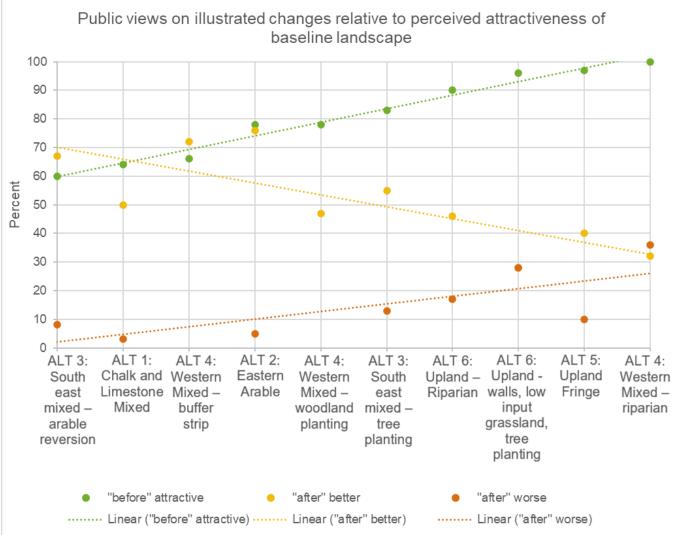


Figure 6.1: Attractiveness of baseline landscapes and views on illustrated changes

Summary of ethnography findings compared to technical findings

Findings from people's films of their visits to the countryside provide a number of additional insights. A common theme running through many accounts is the importance of continuity in the landscape, whether that is expressed in terms of the number of years people have known a particular area, the significance of ancient trees, routes or buildings, or concerns about negative changes such as loss of hedges or declining biodiversity. In the lowlands, many of the agrienvironment related changes are seen as managing valued features positively or tackling past losses. There is often a good understanding of the link between measures such as hedgerow management, woodland planting and the creation of wildflower margins, the ecological benefits these provide and people's enjoyment of the landscape. In contrast, in the uplands, AES may be seen as introducing new elements or bringing change to the landscape, without the same appreciation of the ecological and wider benefits. Opinions on landscapes with a water element are less clear-cut, with some people being drawn to naturalistic wetlands and others valuing more actively managed watercourses. The films also underline the multi-faceted way that people experience and enjoy the countryside, blending visual character with biodiversity, history, personal histories and physical and mental well-being. Particular value is attached to extensive or panoramic views, even in relatively undramatic settings. Landmarks, views back to where people have walked from, or to where they live, are all important in the way that people relate to the countryside.

The films confirm the broader conclusions that agreement between public views and technical assessment of AES interventions is strongest in lowland landscapes and more divergent in the uplands and in relation to the water environment. They suggest good support for measures that increase the ecological value of lowland countryside, even where this results in less tidy landscapes. More generally, they underline the importance of taking a whole landscape perspective alongside a focus on individual features, and reflecting the broad range of reasons why the countryside is valued.

Structure of the rest of this chapter

The rest of this chapter is structured around six ALTs and additional urban fringe locations that were used to gather public views on the effects of AES in the landscape. As noted above, they adopt a common format, with a summary of technical assessment findings relevant to the ALT and the illustrated changes, a summary of additional analysis of quantitative and qualitative survey findings and a discussion comparing the two.

6.2 ALT 1: Chalk and Limestone Mixed

Rapid Survey findings

Overall, for ALT 1: Chalk and Limestone Mixed, the Rapid Survey found that 20% of options were having an enhancing effect on landscape character, with a further 69% having a conserving effect. 11% were assessed as maintaining the landscape and less than 1% were considered to be neutral in their effect.

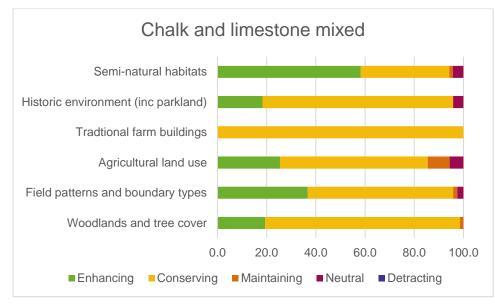


Figure 6.2: Technical findings for Alt 1: Chalk and Limestone Mixed

The 'before' and 'after' images (see Figure 6.3, below) showed the effects of introducing buffer strips, wild bird seed mix, enhanced hedgerow management and a rotational fallow plot.



Figure 6.3: Before and after AES

Larger versions of the images can be viewed in Appendix 10.9.

Two landscape themes are relevant to the pair of 'before' and 'after' photographs:

- 'Agricultural land use' for this ALT, the Rapid Survey found that 25% of options were having an enhancing effect on landscape character, with a further 60% having a conserving effect. The remaining 15% were either maintaining or neutral in their effect.
- 'Field patterns and boundary types' for this ALT, the Rapid Survey found that 37% of options were having an enhancing effect on landscape

character, with a further 60% having a conserving effect. The remaining 3% were either maintaining or neutral in their effect.

Focusing solely on options covering field margins, and looking across the whole Rapid Survey sample, the assessment found that 51% of options were having an enhancing effect and a further 46% a conserving effect.

Results from the five Rapid Survey squares close to this location were as follows:

- Agricultural land use options: Of the eight options surveyed within this landscape theme, six were assessed to be having an enhancing effect on the landscape and two a conserving effect. The majority of options related to low input grassland and mixed stocking.
- Field patterns and boundary types options: Of the 24 options surveyed within this landscape theme, eight were assessed to be having an enhancing effect on the landscape while 13 were found to have a conserving effect. Some options were found to have a neutral or detrimental impact on landscape due to the poor condition of the landscape feature. Most options related to management of hedgerows and the introduction of buffer strips to fields.

Quantitative findings

Quantitative surveys were carried out in Thetford. This found that:

79% considered that, overall, AES are a good (42%), or very good idea (37%) compared to an average of 84% across all locations.

- People were asked how attractive they found the landscape shown in the baseline image. 16% considered it to be very attractive and 48% described it as being quite attractive. This compares with 33% and 50% for the sample as a whole, suggesting that relatively few people consider it to be an especially attractive landscape.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. The proportion considering the landscape to be very attractive was unchanged but there was a notable increase (+12 percentage point) in the proportion judging it to be quite attractive.
- When people were asked to make a direct comparison of the 'before' and 'after' photographs, 5% suggested there had been a big improvement and a further 45% considered there had been a slight improvement. 43% thought the landscape was neither better nor worse, while 3% described it as a bit worse.

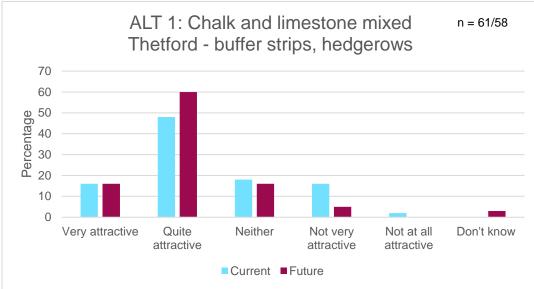


Figure 6.4: Public views of the attractiveness of current and future landscapes – ALT 1: buffer strips, hedges

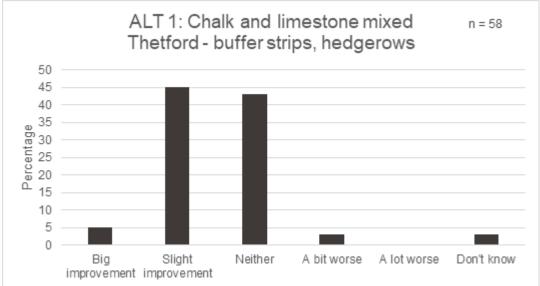


Figure 6.5: Public views of the impact of illustrated landscape changes - ALT 1: buffer strips, hedges

Valued and characteristic features:

Discussions identified a connection to arable land and to fields but also further away to wetter fenland, the Broads and the coast. With a predominantly rural feel, the area was regarded as being a flat landscape with big open skies. Many enjoyed using Thetford Forest, although not those seeking peace and quiet. Heathland was also mentioned as a specific local type of landscape and a few referred to 'The Brecks', as described in the National Character description. Large oak trees were considered characteristic, as was the appearance of windmills here and there. Intensive farming could be regarded as a threat to wildlife.

The National Character Area profile for The Brecks¹⁶ identifies key characteristics which mostly align with those mentioned during the focus groups, including a '*largely open, gently undulating landscape'*, 'vast commercial conifer plantations forming a forest landscape' and '*internationally important lowland heathland and mosaics of lowland acid and calcareous grassland that bring colour and textural variation to the landscape and provide a biodiversity-rich resource.*'

'Before' and after images:

The focus group discussion suggested that the 'before' image was not particularly liked and participants considered that the 'after' image was an improvement. Concerns about the 'before' image include the size of the field and a perception that hedges must have been removed with impacts on landscape and biodiversity.

The buffer strip shown in the 'after' image looked more natural/normal to people and with a trodden path that seemed more accessible than a comparable image for ALT 2.

Some questioned the 'squarishness' of the wild patch at the top of the field but recognised that this gave the farmer the choice of planting the rest of the land with crops. It did not look natural but people liked the idea of letting it go wild and saw it as pragmatic solution. The hedge in the 'after' image was only noticed by a few who thought it looked a lot better. In general, people supported the filling in of gaps in hedges. People recognised that the area had lost hedgerows as a result of intensive farming.

Many participants would have gone further with AES enhancements.

Comparison of public views with the results of the technical assessment

There is good agreement that the kinds of changes brought by AES are resulting in an improvement in the quality of landscape.

Results from the public engagement work suggest that, while this is one of the less appreciated landscapes included in the study (64% considering it to be quite or very attractive compared with an average of 80% across all landscape settings), the changes illustrated result in a significant increase in appreciation (+12 percentage points compared with +5% across all landscape settings). Very few people considered the landscape shown in the 'after' photograph to be worse than the 'before' image. The qualitative assessment confirmed the view that people saw the 'after' landscape as an improvement.

The technical assessment also found that ES options are having a positive effect on landscape character. For this ALT as a whole, this was largely a reflection of options that were conserving important landscape features and characteristics; that is, reinforcing the existing character of the landscape. Focusing more narrowly on field margin options, but looking across all Rapid Survey sample locations, the kinds of changes illustrated in the 'after' image were split broadly equally between an enhancing and conserving effect, with less than 1% having a negative effect.

¹⁶ NCA Profile: 85 The Brecks, Natural England, http://publications.naturalengland.org.uk/publication/4282581

6.3 ALT 2: Eastern Arable

Rapid Survey findings

Overall, for this ALT, the Rapid Survey found that 31% of options were having an enhancing effect on landscape character, with a further 53% having a conserving effect. 16% were assessed as maintaining the landscape.

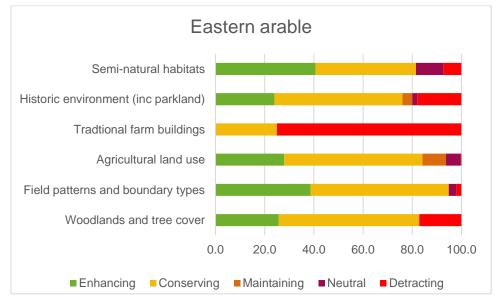


Figure 6.6: Technical findings for ALT 2: Eastern Arable

The 'before' and 'after' images showed the effects of introducing floristically enhanced grass buffer strips, a 6m headland, wild bird mix and nectar mix and enhanced hedgerow management.



Figure 6.7: Before and after AES

Larger versions of the images can be viewed in Appendix 10.9.

Two landscape themes are relevant to the pair of 'before' and 'after' photographs:

 'Agricultural land use' – for this ALT, the Rapid Survey found that 28% of options were having an enhancing effect on landscape character, with a further 56% having a conserving effect. 10% were found to be maintaining the landscape, 6% neutral in their effect and less than 1% have a detracting effect. 'Field patterns and boundary types' – for this ALT, the Rapid Survey found that 39% of options were having an enhancing effect on landscape character, with a further 56% having a conserving effect. 3% were neutral in their effect and 2% had a detracting effect. 3% were neutral in their effect and 2% had a detracting effect.

Results from the five Rapid Survey squares close to this location were as follows:

- Agricultural land use options: Of the eight options surveyed within this landscape theme, six were assessed to be having an enhancing effect on the landscape and two a conserving effect. The majority of options related to low input grassland and mixed stocking.
- Field patterns and boundary types options: Of the 24 options surveyed within this landscape theme, eight were assessed to be having an enhancing effect on the landscape while 13 were found to have a conserving effect. Some options were found to have a neutral or detrimental impact on landscape due to the poor condition of the landscape feature. Most options related to management of hedgerows and the introduction of buffer strips to fields.

Quantitative findings

Quantitative surveys were carried out in Bedford. This found that:

- 82% considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. 24% considered it to be very attractive and 54% described it as being quite attractive. This compares with 33% and 50% for the sample as a whole, suggesting that most people consider it to be a moderately rather than very attractive landscape.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. The proportion considering the landscape to be very attractive increased by 28 percentage points, with the entire sample indicating the landscape was either quite or very attractive.
- When people were asked to make a direct comparison of the 'before' and 'after' photographs, over a third (the highest across all locations and 'before' and 'after' images) suggested there had been a big improvement and a further 43% considered there had been a slight improvement. 11% thought the landscape was neither better nor worse, while 5% described it as a bit worse.

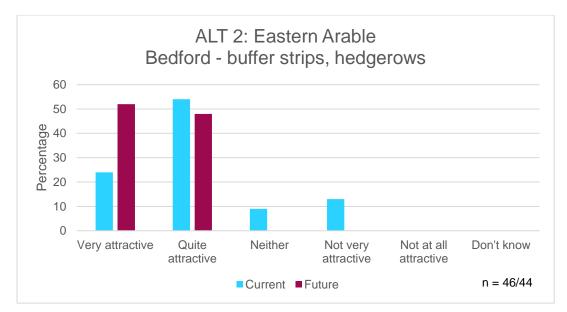


Figure 6.8: Public views of the attractiveness of current and future landscapes – ALT 2: buffer strips, hedges

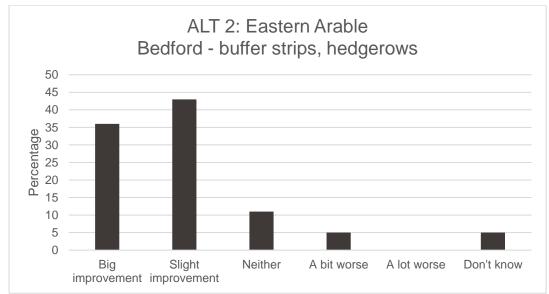


Figure 6.9: Public views of the impact of illustrated landscape changes - ALT 2: buffer strips, hedges

Valued and characteristic features:

The area was felt to be mainly agricultural land in-between significant areas of urban intrusion and threats of further housing development. Certainly, landmarks were pointed out as local features, including water towers, the Hangars at Cardington and the Greensand Ridge area of higher land. For recreation, the local Chicksands Woods was mentioned and Grafham Water reservoir was highlighted. The river Ouse was a strong feature and a concern for flood risk was mentioned locally (St Neots). Large country estates were also felt to give 'space and structure' with a 'certain type of beauty' as expressed by the qualitative responses.

The National Character Area profile for the Bedfordshire Greensand Ridge¹⁷ identifies some similar key characteristics including 'historic parklands and estates associated with grand country houses such as Woburn', the '*Dispersed settlement pattern along the Greensand Ridge, with the majority of towns and villages lying along the river valleys and southern dip slopes', 'substantial blocks of ancient woodland and coniferous plantation are found on the Ridge and steeper slopes' and 'Commercial arable cropping within a network of large geometric fields is associated with the better soils on the dip slope.'*

Before and after images:

The 'before' image in Bedford was well recognised by locals, with positive views about its openness, positive land use and potential value for recreation.

The 'after' visualisation suffered a little because people thought the image looked 'superimposed'. However, generally most enjoyed seeing the beautiful flower mix and the colours; it reminded them of what they had seen in verges or on roundabouts. A few, more ecologically minded, participants thought it was unnatural to have a straight strip and the whole field should be done. Most thought it was reasonable for the farmer to have the rest of the field. There was much discussion as to whether it was accessible or not, because of the long grass. Many thought it was not and would expect a sign giving permission to use in-between the grass and flowers before they would go in.

Longer grass in fields was considered acceptable if pre-existing access was maintained. However, fire risk was mentioned, with reference to recent wild fires during the summer of 2022 - some of which had been exacerbated by fields of long grass.

Comparison of public views with the results of the technical assessment

There is good agreement that the kinds of changes brought by AES are resulting in an improvement in the quality of landscape.

Results from the public engagement work suggest that this is a moderately well-appreciated landscape (78% considering it to be quite or very attractive compared with an average of 80% across all landscape settings). The changes illustrated result in the largest increase in appreciation (+22 percentage points compared with +5 percentage points across all landscape settings). Very few people considered the landscape shown in the 'after' photograph to be worse than the 'before' image. The qualitative assessment also identified positive views, though there were a number of comments about the extent of the margin, its accessibility and the potential risk of fire during prolonged dry weather.

The technical assessment also found that ES options are having a positive effect on landscape character. This ALT had the largest proportion of options resulting in enhancement of landscape character (31% compared with an average of 21% across all ALTs), with relatively fewer options playing a role in conserving important aspects of existing character (53% compared with an average of 67% across all ALTs). Focusing more narrowly on field margin options, but looking across all Rapid Survey sample locations, the kinds of changes illustrated in the 'after' image were split broadly equally between an enhancing and conserving effect, with less than 1% having a negative effect.

¹⁷ NCA Profile: 90 Bedfordshire Greensand Ridge, Natural England, http://publications.naturalengland.org.uk/publication/6667269664931840

6.4.1 ALT 3: South east mixed – arable reversion

Rapid Survey findings

Overall, for this ALT, the Rapid Survey found that 29% of options were having an enhancing effect on landscape character, with a further 66% having a conserving effect. 6% were assessed as maintaining the landscape.

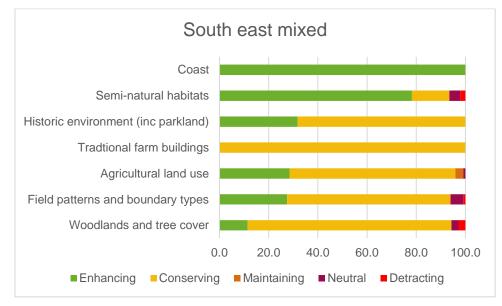


Figure 6.10: Technical findings for ALT 3: South east mixed

The 'before' and 'after' images showed the effects of arable reversion options.



Figure 6.11: Before and after AES

Larger versions of the images can be viewed in Appendix 10.9.

One landscape theme is relevant to the pair of 'before' and 'after' photographs:

 'Agricultural land use' – for this ALT, the Rapid Survey found that 28% of options were having an enhancing effect on landscape character, with a further 67% having a conserving effect. 3% were found to be maintaining the landscape and 1% neutral in their effect.

Quantitative findings

Quantitative surveys were carried out in Wokingham. This found that:

- 81% of respondents considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. 14% considered it to be very attractive and 46% described it as being quite attractive. This compares with 33% and 50% for the sample as a whole, suggesting that most people consider it to be a moderately rather than very attractive landscape.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. The proportion considering the landscape to be very attractive increased by 6 percentage points, and quite attractive by 14 percentage points. The proportion of people considering it to be not very attractive or not at all attractive decreased.
- When people were asked to make a direct comparison of the 'before' and 'after' photographs, 10% suggested there had been a big improvement and a further 57% (the largest increase in this proportion across all locations and images) considered there had been a slight improvement. 2% thought the landscape was neither better nor worse, while 8% described it as a bit or a lot worse.

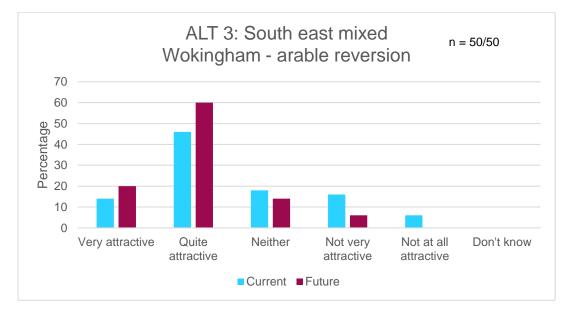


Figure 6.12: Public views of the attractiveness of current and future landscapes – ALT 3: arable reversion

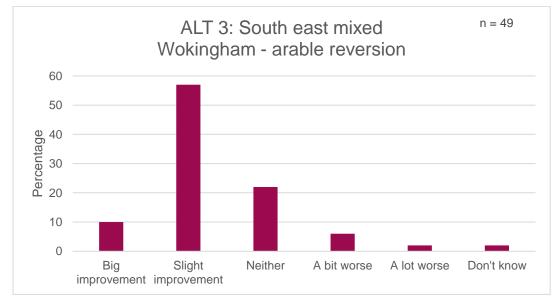


Figure 6.13: Public views of the impact of illustrated landscape changes – ALT 3: arable reversion

Comparison of public views with the results of the technical assessment

There is moderate to good agreement that the kinds of changes brought by AES are resulting in an improvement in the quality of landscape.

Results from the public engagement suggest that this is moderately well appreciated landscape (60% considering it to be quite or very attractive some way below the average of 80% across all landscape settings), the changes illustrated result in a moderate increase in appreciation (+20 percentage points compared with +10 percentage points across all landscape settings). 8% of people considered the landscape shown in the 'after' photographs to be worse than the 'before' images.

The technical assessment also found that ES options are having a positive effect on landscape character. This ALT had the second largest proportion of options resulting in enhancement of landscape character (29% overall compared with an average of 21% across all ALTs), with relatively fewer options playing a role in conserving important aspects of existing character (53% compared with an average of 67% across all ALTs).

Focusing on arable reversion options relevant to the first pair of images, but looking across all Rapid Survey sample locations, the kinds of changes illustrated in the 'after' image were split broadly equally between an enhancing and conserving effect, with less than 1% having a negative effect.

6.4.2 ALT 3: South east mixed – tree planting

Rapid Survey findings

Overall, for this ALT, the Rapid Survey found that 29% of options were having an enhancing effect on landscape character, with a further 66% having a conserving effect. 6% were assessed as maintaining the landscape.

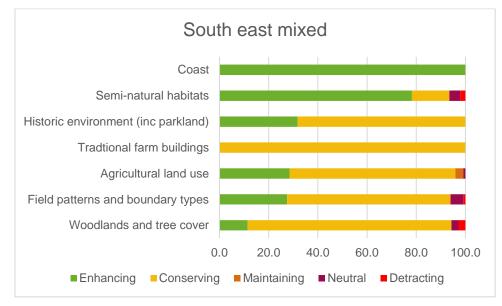


Figure 6.14: Technical findings for Alt 3: South East Mixed

The 'before' and 'after' images showed the effects of tree planting options.



Figure 6.15: Before and after AES

Larger versions of the images can be viewed in Appendix 10.9.

One landscape theme is relevant to the pair of 'before' and 'after' photographs:

 'Woodland and trees' – for this ALT, the Rapid Survey found that 11% of options were having an enhancing effect on landscape character, with a further 83% having a conserving effect. 3% were found to be neutral in their effect, while a further 3% were judged to be having a detracting effect.

Quantitative findings

Quantitative surveys were carried out in Battle/Hawkhurst. This found that:

- 88% of respondents considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. 43% considered it to be very attractive and 40% described it as being quite attractive. This compares with 33% and 50% for the sample as a whole, suggesting that most people consider it to an attractive landscape. Only 7% of people thought this was an unattractive landscape.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. The proportion considering the landscape to be very attractive dropped by 3 percentage points, while the number describing it as quite attractive rose by 17 percentage points. No one thought this was an unattractive landscape.
- When people were asked to make a direct comparison of the 'before' and 'after' photographs, 10% suggested there had been a big improvement and a further 45% considered there had been a slight improvement. 33% thought the landscape was neither better nor worse, while 13% described it as a bit or a lot worse.

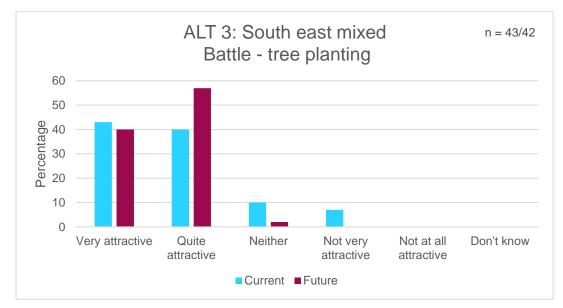


Figure 6.16: Public views of the attractiveness of current and future landscapes – ALT 3: tree planting

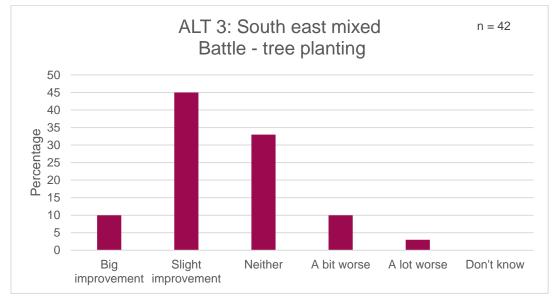


Figure 6.17: Public views of the impact of illustrated landscape changes – ALT 3: tree planting

Valued and characteristic features

The overall characteristic was of pastural farmland interspersed with hilltop villages and low rolling hills. There was an affinity with a productive farming past - for example, through the hop-pickers' history and the appearance of Oast Houses. There was a good patchwork of hedgerows and deciduous woodland. An attachment to the local Bedgebury Forest and Pinetum was expressed. Bewl Water Countryside Park was appealing for recreation and beauty. Further afield, participants felt some affinity with the coast and local waterways.

The National Character Area for the High Weald¹⁸ identifies many of the same valued and characteristic features as the focus groups, including a dispersed settlement pattern of hamlets and scattered farmsteads and medieval ridgetop villages', '*broadleaved woodland cover with a very high proportion of ancient woodland', 'a predominantly grassland agricultural landscape grazed mainly with sheep and some cattle'* and '*high-quality vernacular architecture with distinct local variation using, local materials.'*

Before and after images

The 'after' image added trees to an already well-wooded landscape. This raised some concerns about the impact on views, particularly if views were limited in the surrounding area. This resulted in a slightly greater resistance to tree planting in Battle than elsewhere.

Comparison of public views with the results of the technical assessment

There is moderate to good agreement that the kinds of changes brought by AES are resulting in an improvement in the quality of landscape in this ALT.

Results from the public engagement work suggest that this is a moderately well-appreciated landscape (83% considering it to be quite or very attractive, compared with an average of 80% across all landscape settings). The changes illustrated result in a moderate increase in appreciation (+17 percentage points compared with +5 percentage points across all landscape settings) with responses tending to cluster around the 'quite attractive' / 'slight improvement' response categories, and fewer more positive or more negative responses. 13% of people considered the landscape shown in the 'after' photographs to be worse than the 'before' images. The qualitative part of the survey revealed concerns about the impact of tree planting in an already well-wooded landscape and the loss of views that could result.

The technical assessment also found that ES options are having a positive effect on landscape character. This ALT had the second largest proportion of options resulting in enhancement of landscape character (29% compared with an average of 21% across all ALTs), with relatively fewer options playing a role in conserving important aspects of existing character (53% compared with an average of 67% across all ALTs).

With respect to the pair of images, the technical assessment found that over 80% of woodland and tree cover options were having a conserving effect on landscape character. Focusing more narrowly on woodland creation options, but looking across all ALTs, the assessment identified similar proportions enhancing and conserving the landscape, with around 4% having a detracting effect. The qualitative element of the public perception survey found that people supported tree planting and identified a concern that hedges had suffered from being cut too low in the past.

¹⁸ NCA Profile:122 High Weald, Natural England

http://publications.naturalengland.org.uk/publication/4706903212949504

6.4.3 ALT 3: South east mixed – riparian

Rapid Survey findings

Overall, for this ALT, the Rapid Survey found that 29% of options were having an enhancing effect on landscape character, with a further 66% having a conserving effect. 6% were assessed as maintaining the landscape.

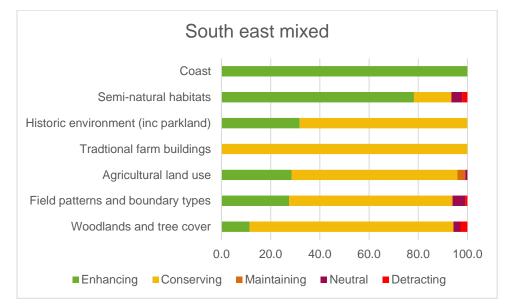


Figure 6.18: Technical findings for 3: South east mixed

The 'before' and 'after' images showed the effects of river restoration including the introduction of marginal habitats and wetland.



Figure 6.19: Before and after AES

Larger versions of the images can be viewed in Appendix 10.9.

One landscape theme is relevant to the pair of 'before' and 'after' photographs:

 'Semi-natural habitats' – for this ALT, the Rapid Survey found that 78% of options were having an enhancing effect on landscape character, with a further 15% having a conserving effect. 4% were found to be neutral in their effect, while a further 2% were judged to be having a detracting effect. Water was not identified as a separate theme within the Rapid Survey analysis. However, analysis across the whole survey sample suggested that 50% of options relating to the water environment were having an enhancing effect, 11% conserving and 35% maintaining. 1% were neutral and 3% detracting in their effect.

There was one option assessed within the 'Semi-natural habitats' theme in the five squares local to the photograph location as part of the Rapid Survey. This was for the restoration of species-rich grassland and was found to have an enhancing effect on landscape character.

Quantitative findings

Quantitative surveys were carried out in Battle/Hawkhurst. This found that:

- 88% of respondents considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. 47% considered it to be very attractive and 51% described it as being quite attractive. This compares with 33% and 50% for the sample as a whole, suggesting that most people consider it to an attractive landscape. No one thought this was an unattractive landscape.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. The proportion considering the landscape to be very attractive dropped by 7 percentage points, while the number describing it as quite attractive rose by 6 percentage points. Again, no one thought this was an unattractive landscape.
- When people were asked to make a direct comparison of the 'before' and 'after' photographs, only 5% suggested there had been a big improvement with 21% considering there had been a slight improvement. 57% thought the landscape was neither better nor worse, while 12% described it as a bit or a lot worse.

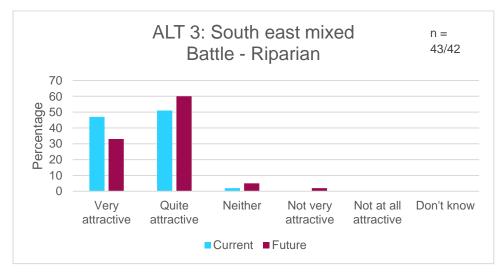


Figure 6.20: Public views of the attractiveness of current and future landscapes – ALT 3: Riparian

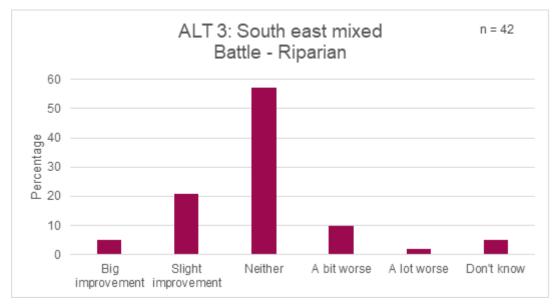


Figure 6.21: Public views of the impact of illustrated landscape changes - ALT 3: Riparian

Valued and characteristic features:

Please see Section 6.4.2 for the valued and characteristic features of this landscape.

Before and after images:

The riparian option in Battle looked more natural and better for wildlife, but participants commented that it looked too muddy to access and were worried that the changes had caused the 'flooding' in the background. In general, there was a need to explain that wetter scrapes, ponds and the overflowing of watercourses were flood-prevention techniques rather than flood-causing actions. Those who were more off-road types were happy they could access the site anyway and were not put off. It was often the case generally that more frequent walkers were happier with more overgrown edges.

Comparison of public views with the results of the technical assessment

There is some disagreement that the kinds of changes brought by AES are resulting in an improvement in the quality of this landscape.

Results from the public engagement work suggest that this is one of the most highly appreciated landscapes included in the study (98% considering it to be quite or very attractive compared with an average of 80% across all landscape settings). The changes illustrated result in a slight decrease in appreciation (-7 percentage points compared with +5 percentage points across all landscape settings). When making a direct comparison of the 'before' and 'after' images, relatively small proportions of people identified an improvement, with over half describing neither an improvement nor a worsening of the landscape. 12% of people considered the landscape shown in the 'after' photographs to be worse than the 'before' images. The qualitative assessment identified some concerns about the impact on access, particularly for those less confident in taking countryside recreation.

The technical assessment concluded that ES options are having a positive effect on landscape character. This ALT had the second largest proportion of options resulting in an enhancement of landscape character (29% compared with an average of 21% across all ALTs)

with relatively fewer options playing a role in conserving important aspects of existing character (53% compared with an average of 67% across all ALTs).

The technical assessment found that of the water related options (across all ALTs), 50% were having an enhancing effect, 11% conserving and 35% maintaining. The qualitative element of the public perception survey identified a number of concerns about the changes that were shown, in part demonstrating a need to improve understanding of what the changes were trying to achieve.

6.5.1 ALT 4: Western Mixed – buffer strip

Rapid Survey findings

Overall, for this ALT, the Rapid Survey found that 22% of options were having an enhancing effect on landscape character, with a further 79% having a conserving effect. 9% were assessed as maintaining the landscape, with 2% having a neutral effect and 1% considered to be detracting.

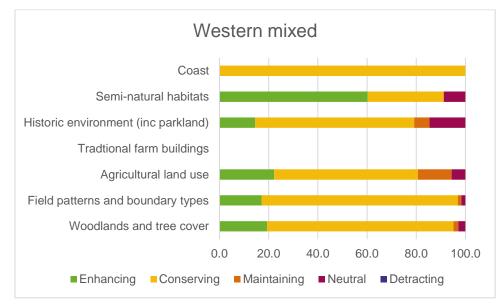


Figure 6.22: Technical findings for ALT 4: Western Mixed

The 'before' and 'after' images showed the effects of introducing a 6 metre headland, and wild bird and nectar seed mix.





Larger versions of the images can be viewed in Appendix 10.9.

One landscape theme is relevant to the pair of 'before' and 'after' photographs:

- 'Agricultural land use' for this ALT, the Rapid Survey found that 22% of options were having an enhancing effect on landscape character, with a further 58% having a conserving effect. 14% were found to be maintaining the landscape and 6% neutral in their effect.
- The Rapid Survey results for the five squares in the local area found that of the ten options under the 'Agricultural land use' theme, six were assessed as having an enhancing effect on the landscape, while the remainder were judged to be

conserving landscape character. These options mostly related to wild bird plots and permanent grassland with very low inputs.

Quantitative findings

Quantitative surveys found that:

- 97% of respondents considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. 22% considered it to be very attractive and 44% described it as being quite attractive. This compares with 33% and 50% for the sample as a whole, suggesting that most people consider it to be a moderately attractive landscape. 6% thought this was an unattractive landscape.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. The proportion considering the landscape to be very attractive rose by 13 percentage points, while the number describing it as quite attractive rose by 15 percentage points, suggesting a significant enhancement of the landscape. No one thought the future landscape was unattractive.
- When people were asked to make a direct comparison of the 'before' and 'after' photographs, only 27% suggested there had been a big improvement with a further 45% describing a slight improvement. 24% thought the landscape was neither better nor worse, while no-one described it as a bit or a lot worse.

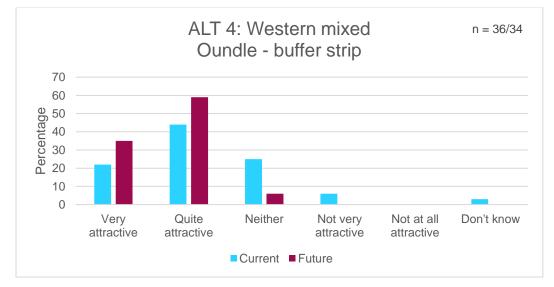


Figure 6.24: Public views of the attractiveness of current and future landscapes – ALT 4: buffer strips

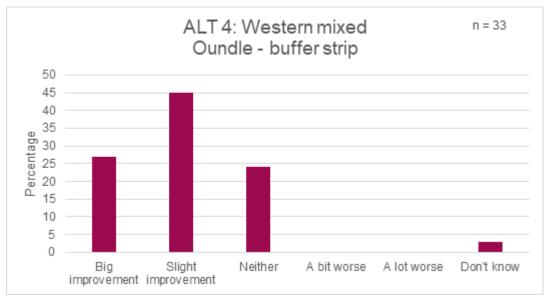


Figure 6.25: Public views of the impact of illustrated landscape changes - ALT 4: buffer strips, hedges

Qualitative research did not include Oundle, though the images were shown to some participants elsewhere. Most thought it was a vast improvement, looking more natural/green and providing better access to the field. People were used to seeing this type of buffer strip and knew how they would navigate it.

Comparison of public views with the results of the technical assessment

There is good agreement between the technical assessment and the findings of the public survey, with both identifying positive landscape changes resulting from the implementation of AES.

Results from the public engagement work suggest that this is moderately appreciated landscape (66% considering it to be quite or very attractive – compared to the average of 80% across all landscape settings). The changes illustrated result in a notable increase in appreciation (+28 percentage points compared with +5 percentage points across all landscape settings), with no one considering the landscape shown in the 'after' photographs to be worse than the 'before' images.

The technical assessment also found that ES options are having a positive effect on landscape character, largely as a result of the 22% of options that were having an enhancing effect on landscape character and the further 58% having a conserving effect. Focusing more narrowly on field margin options, but looking across all Rapid Survey sample locations, the kinds of changes illustrated in the 'after' image were split broadly equally between an enhancing and conserving effect, with less than 1% having a negative effect.

6.5.2 ALT 4: Western Mixed – woodland planting

Rapid Survey findings

Overall, for this ALT, the Rapid Survey found that 22% of options were having an enhancing effect on landscape character, with a further 79% having a conserving effect. 9% were assessed as maintaining the landscape, with 2% having a neutral effect and 1% considered to be detracting.



Figure 6.26: Technical findings for ALT 4: Western Mixed

The 'before' and 'after' images showed the effects of woodland planting.



Figure 6.27: Before and after AES

Larger versions of the images can be viewed in Appendix 10.9.

One landscape theme is relevant to 'before' and 'after' photographs:

 'Woodlands and tree cover' – for this ALT, the Rapid Survey found that 19% of options were having an enhancing effect on landscape character, with a further 76% having a conserving effect. 2% were found to be maintaining the landscape and 3% neutral in their effect.

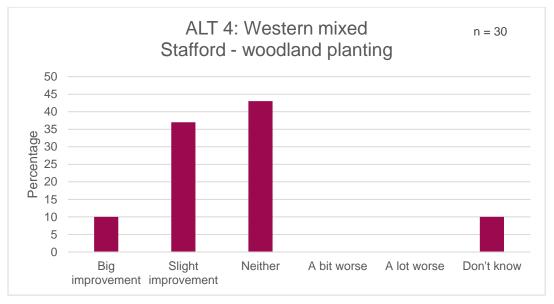
Rapid Survey results in the two squares local to the photograph location did not include any options within the woodlands and tree cover theme.

Quantitative surveys were carried out in Stafford/Cannock. This found that:

- 66% of respondents considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. 26% considered it to be very attractive and 52% described it as being quite attractive. This compares with 33% and 50% for the sample as a whole, suggesting that most people consider it to be a moderately attractive landscape. 6% thought this was an unattractive landscape.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. The proportion considering the landscape to be very attractive dropped by 3 percentage points, while the number describing it as quite attractive rose by 1 percentage point, suggesting that few identified a significant enhancement of the landscape. The proportion who thought the landscape was unattractive dropped by 3 percentage points.
- When people were asked to make a direct comparison of the 'before' and 'after' photographs, only 10% suggested there had been a big improvement with a further 37% describing a slight improvement. 43% thought the landscape was neither better nor worse, while no one described it as a bit or a lot worse.



Figure 6.28: Public views of the attractiveness of current and future landscapes – ALT 4: woodland planting





Two focus groups were held online.

Valued and characteristic features

Cannock Chase was a predominant feature of the local countryside with a strong character described with far-reaching views. The conifers and gorse were mentioned positively and some patches of water were described. Outside of Cannock Chase, there were green fields on flatter land, not necessarily hugely valued and regarded as inaccessible. Further afield, another high point mentioned was 'The Wrekin'. The local landscape was crossed by urban fringe development, busy roadways and motorways.

The National Character Area profile for Cannock Chase and Cank Wood¹⁹ identifies similar key landscape characteristics including the following: 'extensive coniferous plantations, woodlands and historic parklands', 'a mosaic of urban areas, former industrial land and patches of farmland, with an extensive urban fringe,' and the 'extensive networks of canals and railways reflecting the industrial history of the area. Major roads include the M6, the M6 Toll and the A5.'

Before and after images

In this location, participants considered that the trees seemed to be perfectly acceptable, although the planting made for a more intimate and enclosed experience which was not open enough for some.

Comparison of public views with the results of the technical assessment

While there is agreement that the kinds of changes brought by AES are resulting in an improvement in the quality of landscape, the technical assessment recorded more positive changes than evident from the public survey.

Results from the public engagement suggest that this is a moderately well appreciated landscape (78% considering it to be quite or very attractive – close to the average of 80% across all landscape settings). The changes illustrated resulted in a slight decrease in appreciation (-2

¹⁹ NCA Profile: 67 Cannock Chase and Cank Wood. Natural England. http://publications.naturalengland.org.uk/publication/2431343

percentage points compared with +5 percentage points across all landscape settings). No one considered the landscape shown in the 'after' photographs to be worse than the 'before' images. Overall, the survey results suggest that people considered that the changes illustrated brought slight improvements at best.

The technical assessment found that ES options are having a positive effect on landscape character, largely as a result of the 19% of options having an enhancing effect on landscape character, with a further 76% having a conserving effect. These figures are similar to the average results across all ALTs. Focusing more narrowly on field margin options, but looking across all Rapid Survey sample locations, the kinds of changes illustrated in the 'after' image were split broadly equally between an enhancing and conserving effect, with less than 1% having a negative effect.

6.5.3 ALT 4: Western Mixed – riparian

Rapid Survey findings

Overall, for this ALT, the Rapid Survey found that 22% of options were having an enhancing effect on landscape character, with a further 79% having a conserving effect. 9% were assessed as maintaining the landscape, with 2% having a neutral effect and 1% considered to be detracting.

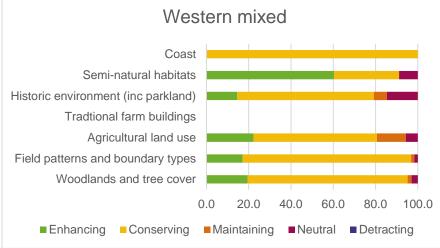


Figure 6.30: Technical findings for Alt 4: Western Mixed

The 'before' and 'after' images showed the effects of introducing a scrape and creating new boggy areas.



Figure 6.31: Before and after AES



Larger versions of the images can be viewed in Appendix 10.9.

Water was not identified as a separate theme within the Rapid Survey analysis. However, analysis across the whole survey sample suggested that 50% of options relating to the water environment were having an enhancing effect, 11% conserving and 35% maintaining. 1% were neutral and 3% detracting in their effect.

In the five Rapid Survey squares close to the photograph, 59 options relating to the water environment were assessed for their landscape impact. Ten were found to be enhancing landscape character, mostly relating to the creation/restoration of wetland habitats. 20 were assessed as conserving landscape, which were primarily options for maintaining wetland habitats. Ten were found to be maintaining landscape character and 19 were having a neutral impact on landscape character. The landscape features under option were mostly assessed as being in a fair or poor condition in these instances.

Quantitative surveys were carried out in Bridgwater/Langport. This found that:

- 82% of respondents considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. 45% considered it to be very attractive and 55% described it as being quite attractive. This compares with 33% and 50% for the sample as a whole, suggesting that people consider it to be a particularly attractive landscape.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. The proportion considering the landscape to be very attractive dropped by 6 percentage points, while the number describing it as quite attractive dropped by 19 percentage points. 14% now considered the landscape to be not very attractive and a further 4% not at all attractive. On this measure, the proportion of people considering the landscape to be attractive dropped from 100% to 75% following the introduction of the illustrated agri-environment measures.
- This pattern was also evident when people were asked to make a direct comparison of the 'before' and 'after' photographs. Only 7% suggested there had been a big improvement, with a further 25% describing a slight improvement. 25% thought the landscape was neither better nor worse, 25% considered it to be a bit worse and 11% a lot worse. So, although over half of the respondents considered the view to be the same or better following the introduction of the illustrated agri-environment measures, more than a third considered it to be worse than before.

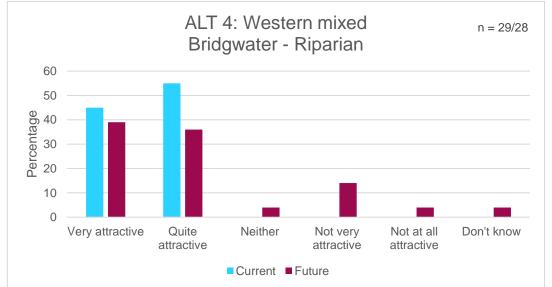


Figure 6.32: Public views of the attractiveness of current and future landscapes – ALT 4: riparian

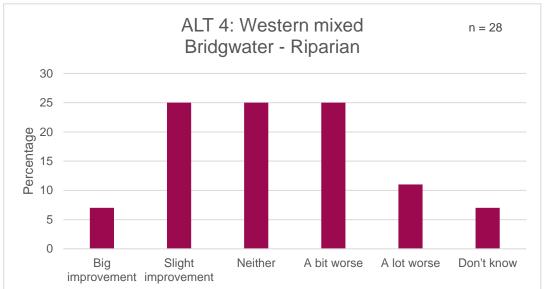


Figure 6.33: Public views of the impact of illustrated landscape changes - ALT 4: riparian

Two focus groups were held online.

Before and after images

Discussions raised concerns about access both by foot and by water. Some changes could be regarded as letting rivers get too 'congested', something that many had experienced. The wilding of the edges was a concern if it meant 'silting-up', if the weeds were invasive, or if they were allowed to go too far into the centre of the water. This would prevent their use by boats or paddleboards/kayaks, or would stop reflections in the water - both being particularly valued.

Comparison of public views with the results of the technical assessment

There is less agreement in this location that the kinds of changes brought by AES are resulting in an improvement in the quality of landscape. The technical assessment recorded much more positive changes than those evident from the public survey.

Results from the public engagement suggest that this is very well appreciated landscape (100% considering it to be quite or very attractive – compared with an average of 80% across all landscape settings). The changes illustrated result in a notable decrease in appreciation, with over a third of people considering that the landscape shown in the 'after' photographs was worse than the 'before' images.

The technical assessment found that, across all ALTs, water related ES options are having a positive effect on landscape character, largely as a result of the 50% of options that were assessed as having an enhancing effect, with only 11% having a conserving impact.

6.6 ALT 5: Upland Fringe

Rapid Survey findings

Overall, for this ALT, the Rapid Survey found that 14% of options were having an enhancing effect on landscape character, with a further 69% having a conserving effect. 13% were assessed as maintaining the landscape, with 2% having a neutral effect and 1% considered to be detracting.

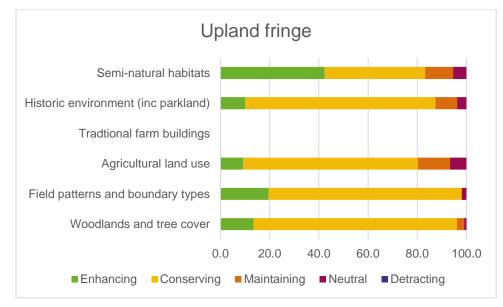


Figure 6.34: Technical findings for ALT 5: Upland Fringe

The 'before' and 'after' images showed the effects of options to protect and maintain stone walls, manage hedgerows, maintain woodland fences and move to low input grazing.



Figure 6.35: Before and after AES

Larger versions of the images can be viewed in Appendix 10.9.

Two landscape themes are relevant to the pair of 'before' and 'after' photographs:

- 'Field patterns and boundary types' for this ALT, the Rapid Survey found that 20% of options were having an enhancing effect on landscape character, with a further 78% having a conserving effect and 2% neutral in their effect.
- 'Semi-natural habitats' for this ALT, the Rapid Survey found that 43% of options were having an enhancing effect on landscape character, 41% a conserving effect, 11% a maintaining effect and 5% a neutral effect.

The Rapid Survey results found the following for the landscapes assessed in the locality:

- Field patterns and boundary types: There were 23 options surveyed under this theme and all were found to be conserving landscape character. Most of these options related to the management of hedgerows, including those of very high environmental value.
- Semi-natural habitats theme: One option under this theme was surveyed for the restoration of species-rich, semi-natural grassland. This was assessed as having an enhancing effect on landscape character.

Quantitative findings

Quantitative surveys were carried out in Nelson/Colne. This found that:

- 90% considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. 76% considered it to be very attractive and 21% described it as being quite attractive. This compares with 33% and 50% for the sample as a whole, suggesting that people consider it to be a particularly attractive landscape.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. The proportion considering the landscape to be very attractive dropped by 5 percentage points, while the number describing it as quite attractive dropped by 2 percentage points. The remainder considered it neither attractive nor unattractive, or did not know. On this measure, the introduction of the illustrated agri-environment measures appears to have resulted in a slight reduction in the number of people considering this to be an attractive view.
- This pattern was also evident when people were asked to make a direct comparison of the 'before' and 'after' photographs. Only 10% suggested there had been a big improvement with a further 30% describing a slight improvement. Almost half (47%) thought the landscape was neither better nor worse, while 10% thought it was a bit or a lot worse. Taken as a whole, 87% considered that the changes either had no effect, or a positive effect.

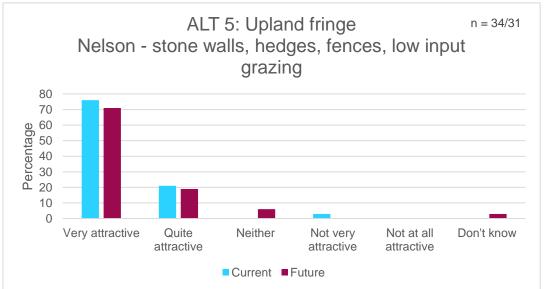


Figure 6.36: Public views of the attractiveness of current and future landscapes – ALT 5: stone walls, hedges, fences, low input grazing

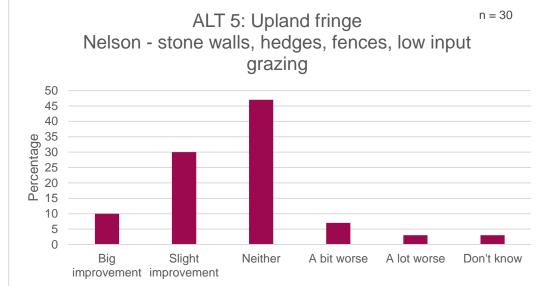


Figure 6.37: Public views of the impact of illustrated landscape changes – ALT 5: stone walls, hedges, fences, low input grazing

Two focus groups were held online.

Valued and characteristic features

The local countryside was valued for its upland nature with the significant landform of Pendle Hill dominating. Another feature was Blackaw Tower, giving a strong sense of place. The views were considered to be special and the openness on the tops regarded as important. The pasture land was regarded as being characteristic of the area, together with sheep grazing and some stone walls. Solitary farm buildings were a feature here and there. Views down to local settlements were part of the landscape, and in the valley the canal and local woods gave an extra dimension to the area.

The National Character Area profile²⁰ for the Lancashire Valleys includes the following key characteristics: 'strong industrial heritage associated with the cotton weaving and textile industries, with many common artefacts such as mill buildings, mill lodges and ponds, and links to the Leeds and Liverpool Canal', 'field boundaries formed by hedges with few hedgerow trees and by stone walls and post and wire fencing', 'farmed land is predominantly pasture for grazing livestock, with areas of acid and neutral grassland, flushes and mires' and 'upland heath and rough pasture on Pendle Hill'.

Before and after images

People saw relatively little difference in the 'before' and 'after' images, corresponding to the relatively subtle effects recorded in the quantitative part of the survey. Some thought the 'after' image would just be a different time of year. On explanation, the concept of less grazing was worrying for those who wanted to know if the farmer's livelihood was protected.

Otherwise, the repairing of stone walls and increased tree planting to soften edges and remove conifers potentially were all regarded as a good thing. Some locals in the older age groups were

²⁰ National Character Area Profile: 35 Lancashire Valleys. Natural England. <u>http://publications.naturalengland.org.uk/publication/12237027</u>

keen to maintain the greenness of some fields, although a few had heard the term 'green desert' which meant they understood that browner fields might be better for wildlife. The 'before' scenario was felt to be beautiful already and the 'after' changes did not affect this. Overall, people felt that the landscape had a very strong character that couldn't be diminished by AES changes.

The tree planting in the Nelson/Colne area was difficult for people to spot. However, when the planting was pointed out it was liked because it looked like it 'blended' into the landscape better and was an improvement on the plantation behind.

Comparison of public views with the results of the technical assessment

There was a moderate level of agreement about the effects of AES on this landscape, with the technical assessment identifying positive effects, but the public engagement suggesting a slight decrease in approval for the 'after' images.

Results from the public engagement work suggest that this is one of the most appreciated types of landscape included in the study (97% considering it to be quite or very attractive – compared with an average of 80% across all landscape settings). The changes illustrated result in a slight decrease in appreciation (-7 percentage points compared with +5 percentage points across all landscape settings). While 40% of people considered the landscape shown in the 'after' photographs to be an improvement, almost half suggested it was neither better nor worse than before and only 10% judged it to be worse than the 'before' images. The qualitative assessment referred to the beauty of the landscape and identified support for measures such as tree planting and wall repair, but also concerns about the loss of greener fields as a result of habitat enhancement. It also pointed to the dominance of topography in shaping people's perception of the landscape, relative to the scale of change represented by AES.

The technical assessment found that ES options are having a positive effect on landscape character, largely as a result of the 70% of options that were assessed as having a conserving effect, with only 14% having an enhancing impact and 13% a maintaining effect. Focusing on the types of option illustrated in the 'after' image, the technical assessment found that almost all field boundary options were having either a conserving (78%) or enhancing (20%) effect on landscape character, while of those options relating to semi-natural habitats 43% were enhancing and 41% a conserving effect.

6.7.1 ALT 6: Upland – riparian

Rapid Survey findings

Overall, for this ALT, the Rapid Survey found that 16% of options were having an enhancing effect on landscape character, with a further 74% having a conserving effect and 10% were assessed as maintaining the landscape.

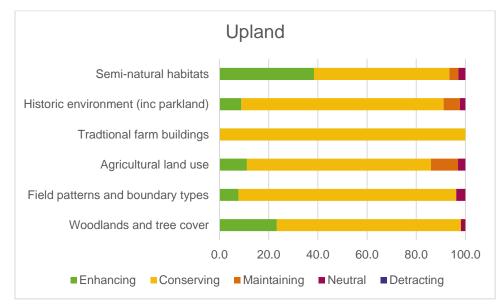


Figure 6.38: Technical findings for ALT 6: Upland

The 'before' and 'after' images showed the effects of making space for water, stone wall restoration, cattle grazing, and introducing low input grassland for overwintering waders.



Figure 6.39: Before and after AES

Larger versions of the images can be viewed in Appendix 10.9.

Three landscape themes are relevant to the 'before' and 'after' photographs:

• 'Semi-natural habitats' – for this ALT, the Rapid Survey found that 38% of options were having an enhancing effect on landscape character, 55% a conserving effect, 4% a maintaining effect and 3% a neutral effect.

- 'Field patterns and boundary types' for this ALT, the Rapid Survey found that 8% of options were having an enhancing effect on landscape character, with a further 88% having a conserving effect and 4% neutral in their effect.
- 'Agricultural land use' for this ALT, the Rapid Survey found that 11% of options were having an enhancing effect on landscape character, with 75% having a conserving effect, 11% a maintaining effect and 3% neutral in their effect.

Water was not identified as a separate theme within the Rapid Survey analysis. However, analysis across the whole survey sample suggested that 50% of options relating to the water environment were having an enhancing effect, 11% conserving and 35% maintaining. 1% were neutral and 3% detracting in their effect.

The Rapid Survey results for the five squares in the local area found the following:

- Semi-natural habitats theme: A total of 17 options were surveyed under this theme and all were found to have a conserving effect on landscape character. Most options related to the retention/restoration of traditional cattle grazing on moorland commons.
- Field patterns and boundary types: There were 55 options surveyed under this theme and all were found to be conserving landscape character. Most of these options related to the maintenance of characteristic stone wall boundaries.
- Agricultural land use: There were 31 options surveyed under this theme; six were assessed as enhancing landscape character and 24 were assessed as conserving landscape character. Most of these options related to low/very low input grassland.

Quantitative findings

Quantitative surveys were carried out in Bowness/Windermere. This found that:

- 80% considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. 55% considered it to be very attractive and 43% described it as being quite attractive. This compares with 33% and 50% for the sample as a whole, suggesting that people consider it to be a particularly attractive landscape.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. While 90% of respondents suggested the view to be very or quite attractive, the proportion considering it to be very attractive dropped by 14 percentage points, while the proportion considering it to be quite attractive increased by 5 percentage points. Only 5% (an increase of 3 percentage points) considered the view to be unattractive. On this measure, the introduction of the illustrated agri-environment measures appears to have resulted in a slight reduction in people's views about the attractiveness of this view.
- This pattern was less evident when people were asked to make a direct comparison of the 'before' and 'after' photographs. Only 12% suggested there had been a big improvement with a further 34% describing a slight improvement. 29% thought the landscape was neither better nor worse, while 15% thought it was a bit worse and 2% considered it much worse.

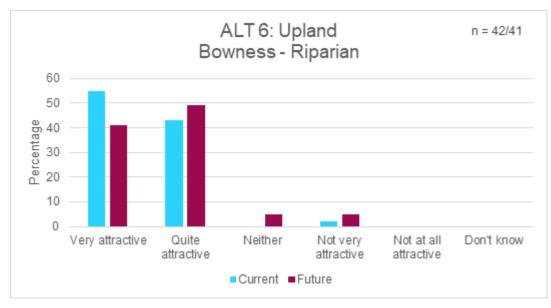


Figure 6.40: Public views of the attractiveness of current and future landscapes – ALT 6: Riparian

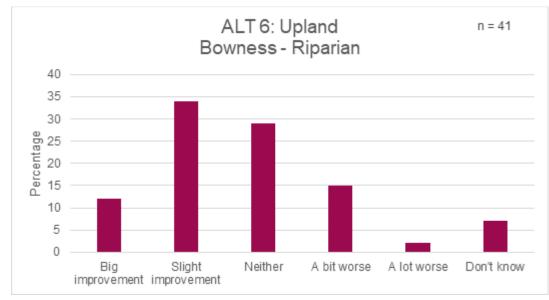


Figure 6.41: Public views of the impact of illustrated landscape changes – ALT 6: Riparian

Qualitative findings

Two face-to-face focus groups were held.

Valued and characteristic features

The local character of the countryside was considered to be particularly strong. Although people talked about the area local to Bowness and Windermere, there was a general affinity with the landscape further afield expressed in the same discussion as far as Langdale and Rydal Water. Locally, School Knott and Post Knott were highly valued. The iconic shapes and landform of the fells were strongly significant, whilst the gentler fields, stone walls and woodlands provided more private landscapes. The intrusion of tourism was described as difficult to navigate but many found their own corners to be alone. The presence of farmland was important historically to people. Recreation was a key pastime with varying degrees of difficulty available for different ability levels.

The National Character Area profile for the South Cumbria Low Fells²¹ describes the key characteristics of the landscape including the 'open fells, with craggy ridges, rocky knolls and infrequent woodland and tree cover', 'pastoral landscape, consisting of small secluded and larger open valleys and fells, with generally small- to medium-scale enclosures', and 'historic field systems dating from medieval times, with well-maintained drystone walls forming strong patterns and boundaries'. It also mentions that the NCA is a 'significant tourism and recreational area, with large numbers of visitors attracted by the natural beauty, the wildlife, the cultural connections, and the opportunities for walking, cycling, running, climbing and water-based activities, among other pursuits.' Many of these align with the characteristics identified in the focus groups, although the focus groups tended to define the landscape by its experiential qualities.

Before and after images

The fact that the fencing had been removed was viewed as a positive change. The organic nature of the water's shape helped with making it look beautiful. A few thought they had seen this change happen. Some wondered if access to the water would be prevented but thought they could look at it from the footpath. The key benefits were the increase in wildlife, although some thought that livestock could drink from it. One person pointed out that the previous ditch was an old AES management option. There was a discussion that ditches were not generally kept very well, by which they meant 'cleared out'; this was remembered as a regular activity locally. A few thought the 'pond' would not be too 'ephemeral'.

Comparison of public views with the results of the technical assessment

There was a moderate to low level of agreement about the effects of AES on this landscape, with the technical assessment identifying positive effects, but the public engagement suggesting a slight decrease in approval for the 'after' images.

Results from the public engagement suggest that this is amongst the most appreciated types of landscape included in the study (98% considering it to be quite or very attractive – compared with an average of 80% across all landscape settings). While most respondents considered that the landscape with the changes illustrated was still quite or very attractive, there was a notable shift from the very to quite attractive category. Relatively small numbers of people considered this to be an unattractive landscape, or that the changes illustrated had made it less attractive. The qualitative assessment identified mixed views about the creation of wetland, and there were also differences in attitudes to sheep grazing on higher ground.

The technical assessment found that ES options are having a positive effect on landscape character. The types of option illustrated in the image (semi-natural habitats, field boundaries and woodland and trees) were found to having a significant conserving effect on the upland landscape, with some enhancement provided in terms of semi-natural habitats and woodlands.

This suggests there may be a divergence between the public, who highly value existing upland landscapes, and the technical assessment which underlined the positive effects of the conservation of key features such as semi-natural habitats.

²¹ NCA Profile: 19 South Cumbria Low Fells, Natural England, http://publications.naturalengland.org.uk/publication/4754470

6.7.2 ALT 6: Upland - walls, low input grassland, tree planting

Rapid Survey findings

Overall, for this ALT, the Rapid Survey found that 16% of options were having an enhancing effect on landscape character, with a further 74% having a conserving effect and 10% were assessed as maintaining the landscape.

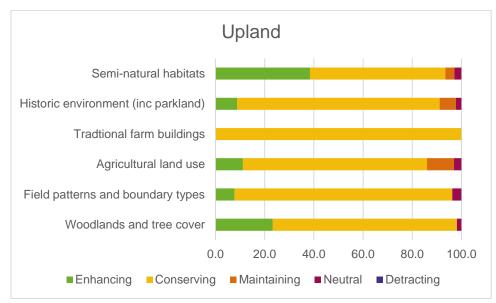


Figure 6.42: Technical findings for ALT 6: Upland

The 'before' and 'after' images showed the effects of introducing low input grassland, protecting and maintaining stone walls and tree planting on higher ground.



Figure 6.43: Before and after AES

Larger versions of the images can be viewed in Appendix 10.9.

Three landscape themes are relevant to the 'before' and 'after' photographs:

- 'Semi-natural habitats' for this ALT, the Rapid Survey found that 38% of options were having an enhancing effect on landscape character, 55% a conserving effect, 4% a maintaining effect and 3% a neutral effect.
- 'Field patterns and boundary types' for this ALT, the Rapid Survey found that 8% of options were having an enhancing effect on landscape character, with a further 88% having a conserving effect and 4% neutral in their effect.

• 'Woodlands and tree cover' – for this ALT, the Rapid Survey found that 23% of options were having an enhancing effect on landscape character, with a further 75% having a conserving effect. 2% were neutral in their effect.

The Rapid Survey results for the five squares in the local area found the following:

- Semi-natural habitats theme: A total of 17 options were surveyed under this theme and all were found to have a conserving effect on landscape character. Most options related to the retention/restoration of traditional cattle grazing on moorland commons.
- Field patterns and boundary types: There were 55 options surveyed under this theme and all were found to be conserving landscape character. Most of these options related to the maintenance of characteristic stone wall boundaries.
- Woodlands and trees: Of the 21 options surveyed under this theme, 20 were assessed as conserving and two as enhancing. Enhancing options related to the restoration of woodland.

Quantitative findings

Quantitative surveys were carried out in Bowness/Windermere. This found that:

- 80% considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. 68% considered it to be very attractive and 28% described it as being quite attractive. This compares with 33% and 50% for the sample as a whole, suggesting that people consider it to be a particularly attractive landscape.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. While everyone suggested the view to be very or quite attractive, the proportion considering it to be very attractive dropped by 12 percentage points. On this measure, the introduction of the illustrated agri-environment measures appears to have resulted in a slight reduction in people's opinions about the attractiveness of this view.
- This pattern was also evident when people were asked to make a direct comparison of the 'before' and 'after' photographs. Only 8% suggested there had been a big improvement, with a further 20% describing a slight improvement. 44% thought the landscape was neither better nor worse, while 28% thought it was a bit worse (one of the highest 'disapprovals' recorded in the study). This indicates that the proportions considering the landscape had improved and had worsen were broadly similar.

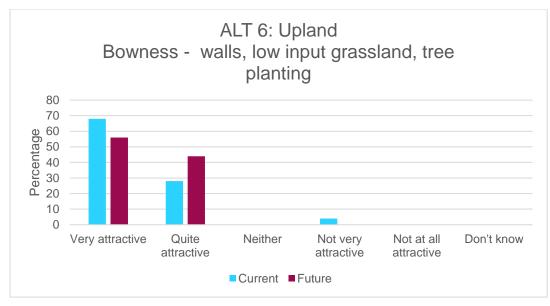


Figure 6.44: Public views of the attractiveness of current and future landscapes – ALT 6: walls, low input grassland, tree planting

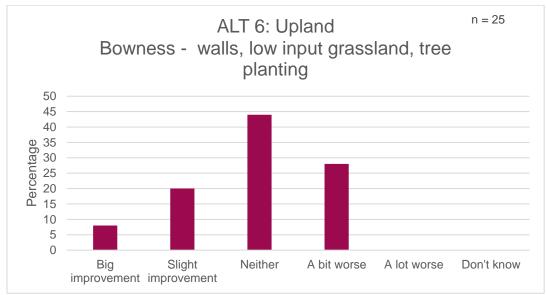


Figure 6.45: Public views of the impact of illustrated landscape changes – ALT 6: walls, low input grassland, tree planting

Qualitative findings

Two face-to-face focus groups were held.

Valued and characteristic features

The local character of the countryside was considered to be particularly strong. Although people talked about area local to Bowness and Windermere there was a generally affinity with the landscape further afield expressed in the same discussion as far as Langdale and Rydal Water. Locally, School Knott and Post Knott were highly valued. The iconic shapes and landform of the fells were strongly significant whilst the gentler fields, stone walls and woodlands provided more private landscapes. The intrusion of tourism was described as difficult to navigate but many found their own corners to be alone. The presence of farmland was important historically to people. Recreation was a key pastime with varying degrees of difficulty available for different ability levels.

Section 6.7.1 describes the key characteristics of the South Cumbria Low Fells.

Before and after images

People liked the way the trees had a ragged edge, followed the landform, and seemed to have native species. They were happy that they could see the stone wall and that there was less grazing in the field (although this was difficult to notice visually). Some people seemed to be a little tired of tree planting schemes. Grazing was a hot topic in Bowness (ALT 6), with points of view on either side; the term 'sheep-wrecked' was known in this ALT. The reduction of grazing has been experienced and some thought it had been done too quickly and at too large a scale. There was a polarisation of views between those who felt that sheep grazing was integral to the local area's identity and those who believed the ecology of the area to be more important.

Comparison of public views with the results of the technical assessment

There was a moderate to low level of agreement about the effects of AES on this landscape, with the technical assessment identifying positive effects, but the public engagement suggesting a slight decrease in approval for the 'after' images.

Results from the public engagement suggest that this is the most appreciated type of landscape included in the study (96% considering it to be quite or very attractive – compared with an average of 80% across all landscape settings). While all respondents considered that the landscape with the changes illustrated was still quite or very attractive, there was a notable shift from the 'very' to 'quite attractive' category. Equal proportions (28%) of respondents judged the 'after' images to be better and worse than the 'before' image, with 44% indicating it was neither better nor worse.

The technical assessment found that ES options are having a positive effect on landscape character. The types of option illustrated in the image (semi-natural habitats, field boundaries and woodland and trees) were found to be having a significant conserving effect on the upland landscape, with some enhancement provided in terms of semi-natural habitats and woodlands.

This suggests there may be a divergence between the public, who highly value existing upland landscapes, and the technical assessment which underlined the positive effects of the conservation of key features such as drystone walls or the creation of more biodiverse, semi-natural habitats.

6.7.3 Urban Fringe – hedges, tree planting, arable reversion

Rapid Survey findings

The Rapid Survey did not address urban fringe landscapes. However, there were three clusters of survey squares which were incidentally located close to urban areas – Southampton, Slough and Rotherham.



Figure 6.46: Before and after AES

The 'before' and 'after' images showed the effects of hedge and hedgerow tree planting, and the introduction of arable cultivation.

Larger versions of the images can be viewed in Appendix 10.9.

Landscape themes relevant to 'before' and 'after' photographs include:

- 'Woodlands and tree cover' in the squares close to urban areas, the Rapid Survey found that all options were having a 'conserving' effect on landscape character.
- 'Field patterns and boundary types' in the squares close to urban areas, the Rapid Survey found that 95% of options were having a 'conserving' effect on landscape character. The remaining 5% were found to be 'neutral' in their effect.
- 'Agricultural land use' in the squares close to urban areas, the Rapid Survey found that 54% of options were having an 'enhancing' effect on landscape character, with a further 29% having a 'conserving' effect. 7% were found to be 'maintaining' the landscape and 10% were found to be 'neutral' in their effect.

Quantitative findings

Quantitative surveys were carried out in Leicester. This found that:

- 80% considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. 13% considered it to be very attractive and 41% described it as being quite attractive. 25% described it as being not very attractive and a further 9% as being not at all attractive. These results suggest that people considered it to be one of the less attractive landscapes in the study.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. While the proportion considering it to be very attractive remained unchanged at 13%, the proportion describing it as quite

attractive fell by 13 percentage points. While the proportion describing it as 'not very attractive' was also unchanged at 25%, the proportion considering it to be not at all attractive increased by 10 percentage points. On this measure, the introduction of the illustrated agri-environment measures appears to have resulted in a notable reduction in people's views about the attractiveness of this view – a view that was already one of the least appreciated in the study.

• This pattern was also evident when people were asked to make a direct comparison of the 'before' and 'after' photographs. Only 9% suggested there had been a big improvement, with a further 38% describing a slight improvement. 13% thought the landscape was neither better nor worse, while 22% thought it was a bit worse and 19% thought it was a lot worse (the highest 'disapproval' recorded in the study). This suggests that in this urban fringe setting, people were split about the effects of the illustrated changes, with broadly similar proportions describing positive and negative change.

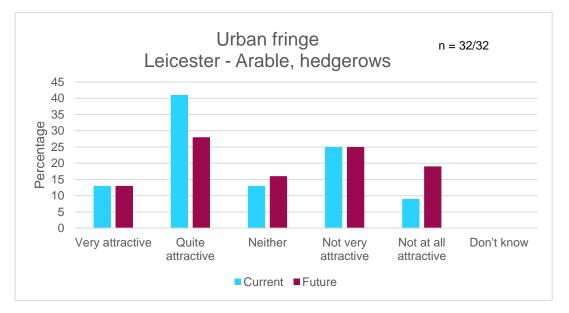


Figure 6.47: Public views of the attractiveness of current and future landscapes – Urban Fringe: arable and hedgerows

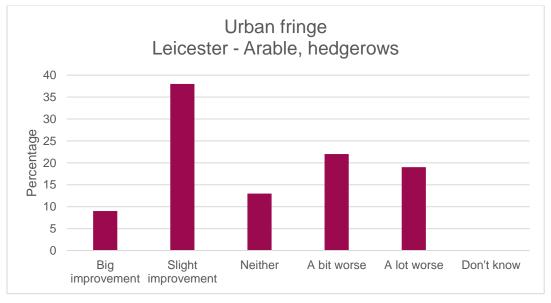


Figure 6.48: Public views of the impact of illustrated landscape changes – Urban Fringe: arable and hedgerows

Qualitative findings

Most people were in favour of obscuring the view of the buildings with more tree planting along the back edge which is shown in some of the visualisation options.

Arable was thought by locals to be unviable due to fact that the field floods regularly. When shown to non-locals however, it was thought to be a good combination for the farmers but not necessarily something one would want to experience up close. It was difficult to read across the field having been split in two, but it was generally preferred by people who were not local to the area. It was not considered to be a place to access. A few wanted to revert to the original image, preferring "what we've got now".

6.7.4 Urban Fringe – agro-forestry

Rapid Survey findings

The Rapid Survey did not address urban fringe landscapes. However, there were three clusters of survey squares which were incidentally located close to urban areas – Southampton, Slough and Rotherham.

The 'before' and 'after' images showed the effects of introducing agro-forestry.



Figure 6.49: Before and after AES

Larger versions of the images can be viewed in Appendix 10.9.

None of the landscape themes analysed as part of the Rapid Survey were relevant to the agroforestry option.

Quantitative findings

- 84% considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. Only 7% considered it to be very attractive, although 62% described it as being quite attractive. 17% described it as being not very attractive and a further 7% as being not at all attractive. These results suggest that people considered it to be one of the less attractive landscapes in the study.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. The proportion considering it to be very attractive increased slightly to 11%, while the proportion describing it as quite attractive fell by 5 percentage points. The proportion describing it as not being attractive reduced slightly, and a few more people described it as being neither attractive nor unattractive. This suggests that, overall, the illustrated agri-environment measures appear to have resulted in a modest improvement in people's views about the attractiveness of this landscape.
- This pattern was also evident when people were asked to make a direct comparison of the 'before' and 'after' photographs. While no-one suggested there had been a big improvement, 32% described a slight improvement. 54% thought the landscape was neither better nor worse, while only 7% thought it was a bit worse and 7% thought it was a lot worse. This confirms the finding that most people detected no change or a slight improvement.

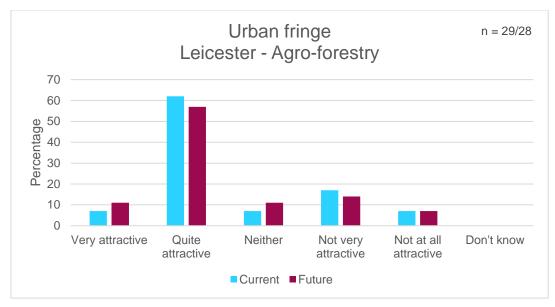


Figure 6.50: Public views of the attractiveness of current and future landscapes – Urban Fringe: agro-forestry

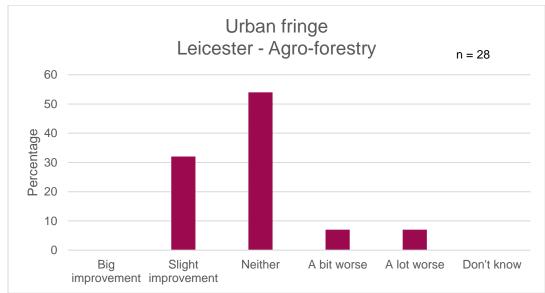


Figure 6.51: Public views of the impact of illustrated landscape changes – Urban Fringe: agroforestry

Qualitative findings

This visualisation used the same baseline image as the urban fringe image in section 6.2.3, but showed the implementation of agroforestry (agriculture incorporating the cultivation of trees) in the 'after' image. Planting the whole field was criticised because of the straight lines of the planting and the fact the species looked 'strange' and unidentifiable. This caused debate with regard to tree plantation practices being 'too regimented' which is not regarded as 'natural'. However, the field was known to flood and people thought that the trees might help prevent this. Others thought that introducing bogs might work and sometimes included them when drawing into the baseline image later in the group.

6.7.5 Urban Fringe – archaeology, hedges, scrub

Rapid Survey findings

The Rapid Survey did not address urban fringe landscapes. However, there were three clusters of survey squares which were incidentally located close to urban areas – Southampton, Slough and Rotherham. The 'before' and 'after' images showed the effects of hedge and hedgerow tree planting, scrub development on banks and maintenance of grass over an archaeological feature.



Figure 6.52: Before and after AES

Larger versions of the images can be viewed in Appendix 10.9.

Landscape themes relevant to 'before' and 'after' photographs include:

- 'Woodlands and tree cover' in the squares close to urban areas, the Rapid Survey found that all options were having a 'conserving' effect on landscape character.
- 'Field patterns and boundary types' in the squares close to urban areas, the Rapid Survey found that 95% of options were having a 'conserving' effect on landscape character. The remaining 5% were found to be 'neutral' in their effect.
- 'Historic environment' no options for this landscape theme were surveyed in the Rapid Survey squares close to urban areas.

Quantitative findings

- 84% considered that, overall, AES are a good, or very good idea (average across all locations = 84%).
- People were asked how attractive they found the landscape shown in the baseline image. 24% considered it to be very attractive with a further 45% describing it as being quite attractive. 14% described it as being not very attractive but none as being not at all attractive. These results suggest that people considered it to be a moderately attractive landscape when compared with others in the study.
- People were asked how attractive they found the landscape shown in the image illustrating the effects of AES options. The proportion considering it to be very attractive increased by 7 percentage points and the proportion describing it as quite attractive rose by 3 percentage points. The proportion describing it as not being attractive halved to 7%. This suggests that, overall, the illustrated agri-environment measures appear to have resulted in a modest improvement in people's views about the attractiveness of this landscape.

This pattern was also evident when people were asked to make a direct comparison of the 'before' and 'after' photographs. While 17% suggested there had been a big improvement, 45% described a slight improvement, meaning that over 60% detected positive change. 24% thought the landscape was neither better nor worse, while 14% thought it was a bit worse and none thought it was a lot worse. This confirms the finding that most people detected no change or a slight improvement.

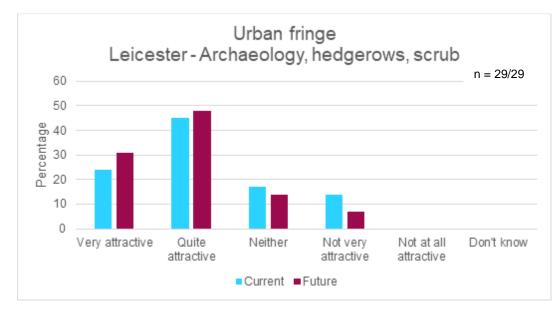


Figure 6.53: Public views of the attractiveness of current and future landscapes – Urban Fringe: Archaeology, hedgerows, scrub

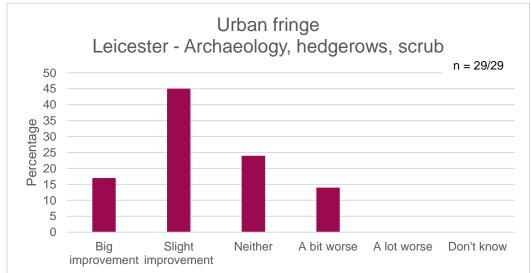


Figure 6.54: Public views of the impact of illustrated landscape changes – Urban Fringe: Archaeology, hedgerows, scrub

Qualitative findings

This image was wholeheartedly seen as an improvement, being more attractive, natural and good for wildlife, whether shown to locals or non-locals. There was interest in the historical features and the interpretation board. People who used this baseline image for a collage introduced similar initiatives, although they were more conservative with the background ridge planting and tended to introduce longer grass and boggy patches in the field itself.

7. Discussion and key findings

7.1 Adding to understanding around public perceptions

It is clear that this study has added to our understanding of the public's perceptions of landscape change and the role of AES in making the countryside more environmentally resilient. The findings are mostly in line with other studies, notably the broad level of support for AES being seen as having a positive impact on landscapes. The focus here on countryside users across a range of landscape types adds some additional detail to the baseline understanding offered by LUC (2013), LUC and Rural Focus (2016) and others.

The research extends the previous landscape analyses (2013/2016) by including the urban fringe, and it is here that some of the strongest views regarding the potential of AES are found. These landscapes were used frequently, but they are seen as being of lower scenic value compared to other ALTs in the 'before' photos. Participants then scored the 'after' photo showing the possible AES interventions more highly, suggesting that there is greater potential for enhancement of the environment and people's appreciation of it in these landscapes. This would need more investigation and explanation regarding how what is shown in photographs might translate to changes on the ground and whether these are still acceptable. However, there was a general recognition that they would improve biodiversity. In this study, it was only possible to assess generic changes to the landscape, therefore an assessment of AES options and identification of subsequent gaps suitable for the urban fringe would be necessary. There is clearly potential for a significant increase in how these landscapes are valued by the public, although they come with considerable challenges, such as unauthorised access and fly tipping. Consequently, there would need to be some consideration concerning which AES options and actions are likely to be effective and achievable.

While the sample was an appropriate size for this project, it was not large enough to examine the impact of other variables such as age, social data, impact of environmental values, ethnicity and place of upbringing. As Rust et al (2021) noted, the interaction and relationship between such factors and landscape preferences is complex. However, enough data was collected to suggest that these are areas worthy of future enquiry. For example, while those who were members of environmental organisations (as broadly defined by the participants) scored the images a little more highly than those who were not in such organisations, the difference was not dramatic and both groups were supportive of AES and the potential positive impact they might have on landscapes. It is important to reiterate here that this project assessed those who had visited the countryside recently. There remains a very important group of people who do not visit very often but would like to, and future research might focus on this group and the potential benefits that the countryside brings to them (see Kirby and Scott 2023). Nevertheless, this study does add to our understanding of what current countryside users think, and the clear message from the participants is that they support the types of changes that AES is looking to encourage. The benefits of being in nature are increasingly being explored; for example, 'nature connectedness' has become a measure for policy makers and is now squarely linked to health and wellbeing strategies in England (Smith et al 2023).

In particular, this study adds to our understanding of how the public perceive potential change brought about by AES within the Agricultural Landscape Types

(ALT). The picture is largely positive, with participants happy for a degree of change, especially for the purposes of nature recovery and to address the challenges of climate change, provided that can be achieved while protecting elements of the character that they love.

There were, however, some important variations in attitudes to landscape change. The study found that predominantly lowland agricultural landscapes (i.e. urban fringe, Eastern arable and Chalk and Limestone Mixed) appeared to be the least appreciated of those included in the study. In these landscapes people were often aware of the historic loss of landscape features such as hedges or the wider decline in biodiversity. In these areas, people were generally most positive about the changes resulting from AES and understanding of the reasons for such changes.

By contrast, people were less positive about the changes associated with AES in landscapes that were more highly appreciated (i.e. Upland fringe and Upland ALTs and in riparian or wetland locations). In the more upland locations there appeared to be a strong attachment to the existing appearance and character of the landscape and a greater reluctance to see changes such as native woodland expansion or reductions in grazing levels. This may reflect the long-established, 'open' character of the uplands, the iconic status often attached to upland landscapes (frequently the subject of designations that imply conservation rather than positive change) and, perhaps, a need to improve people's understanding of the drivers for landscape change in these areas (e.g. climate mitigation and adaptation, nature recovery). A slightly different range of factors appear to affect some people's attitudes to change affecting river and wetland landscapes. Here there were clearly expressed concerns about the impact of illustrated changes on issues such as access to watercourses, safety and their visibility in the landscape. Again, this indicates the importance of communicating the reasons for such changes.

It is worth noting that participants were asked to give their views about relatively subtle landscape changes, illustrated at the field scale. It is possible that expressed views would be different if more radical or landscape scale changes were implemented.

While Rust et al (2021) focused on a national perspective in terms of landscape preferences, their regional workshops highlighted participants' preferences for variability across a range of local landscapes. This study extends this finding and shows that when given the opportunity, both frequent and occasional users of the countryside can be considerate and accepting of change in the landscape when the purpose is clear. It also identifies landscapes where additional explanation of the drivers for AES related change could help increase understanding and acceptance of such changes.

7.2 Comparing public perceptions and professional opinions

A key aspect of this project is comparing the views of countryside users with an assessment of similar landscapes undertaken by professionals (see Chapter 6 for findings). The technical assessment evaluated the effects of AES options in similar landscape settings and used a well-defined methodology to help ensure consistency.

Overall, there appears to be a good correlation between the public and professional assessment and comment on all landscapes. Agreement is strongest in the lowland landscapes, which participants rated as being moderately or less attractive compared to other landscapes in the sample. The landscape types with the most divergent views were the Upland Fringe and Upland ALTs together with riparian and wetland landscapes. Here, participants rated the potential AES changes less highly than the professionals.

It is worth remembering that the sample comprised those who live close to and use these landscape types. However, it is clear from the response that the participants in these areas appreciate these landscapes more highly than those living and visiting their nearby lowland landscapes ²². The baseline images of the Upland Fringe/Upland ALTs are viewed as 'iconic' or 'high value'. The images illustrating AES changes are rated the same or less attractive than the baseline images, suggesting some concerns about negative landscape effects. It is possible that the sample saw relatively little difference between the two images, as suggested by the qualitative survey when someone suggested the two images just showed the same landscape at a different time of year. In the qualitative survey, where discussion around the images was possible, there seemed to be an increased appreciation of why the actions were taken for some features, such as rebuilding walls, but not others such as reducing grazing.

The second area of divergence concerned changes to the water environment, such as rewetting, naturalisation, enhanced wetlands and adding scrapes. Participants generally received these changes less well than the professionals. However, this was not always due to the initial image being rated highly; rather, some participants were concerned as to what the AES interventions were going to achieve and how they may impact on the landscape. Again, the difference is partly because the professional assessment is based on the likely effect on the semi-natural habitats, whereas the participants' views reflect their perceptions on seeing the image. The feedback suggests that there were two main areas of concern. The first related to accessibility, and that some actions such as introducing scrapes and rewetting make the landscape less accessible. The second was a lack of understanding as to the purpose of these actions and what they would achieve. This is especially true of those actions that are not purely for biodiversity, like rewetting. Educating countryside users about such actions and the impact they can have (in addition to biodiversity) is an important lesson to take away from the research.

The third area concerned tree planting. Overall, tree planting was widely valued and supported by both participants and professionals; the only area of difference concerned tree planting in landscapes that already have high tree cover or are considered as 'iconic' open landscapes. Some participants' concerns centred on the loss of views and an increased sense of 'enclosure' if the tree cover increased. This suggests that some people may prefer limits on increasing tree cover and warrants further investigation.

Overall the comparison between the participants' and professional assessment of landscape change provides overwhelming support for AES, but with the proviso that there needs to be a clear explanation and communication of some AES actions. The key areas of divergence relate to the more sensitive landscapes in the uplands and AES actions that go beyond biodiversity where the professionals' greater understanding of drivers behind these actions may lead to a more positive assessment.

²² Over 75% rate the upland images as 'very attractive', while an average of 33% rate the lowland images as 'very attractive'.

7.3 Future considerations and development

From a methodological perspective, the use of photographs of areas that participants know worked well. In most cases, the changes introduced in the visualisations had a clear link with potential AES actions. The approach of using standardised images with a similar scale and clarity of features was appropriate for the study and introduced a level of standardisation that made replicability possible in future or complementary studies. However, most of these images were associated with current AES activity, which links to supporting a range of environmental outcomes, rather than enhancing landscape per se. As outlined in the previous section, some actions have a wider benefit; as AES evolves to incorporate actions aimed at meeting climate change and resource protection challenges, the types of intervention will grow. There is a need to communicate the reasons for these changes to the public more widely. The qualitative survey highlights the desire of those who access the countryside to have a greater understanding about the changes being introduced. Where public education is effective, this will lead to a better understanding of AES actions and provide benefits to nature - for example, by potentially reducing disturbance to wildlife as a result of inappropriate public access.

Using a sample from towns and communities close to the landscapes enabled participants to feel a connection and familiarity with the images. In this sense it was representative of those who currently use the countryside, and the nature of the survey is likely to have narrowed this further to those who use and have a broad understanding of the countryside. The 'before' and 'after' photograph approach would suit other groups. However, the sample would need to be selected more strategically to access specific ones - for example, relating to ethnic background and those who do not access the countryside as much as they would like to. Given the noted differences between responses to change in upland, lowland and riparian landscapes, there could also be benefit in extending the approach to include visitors to a range of popular outdoor recreation areas.

It is clear that the public continues to access the countryside to engage with nature, to seek tranquillity, and for their physical and mental wellbeing. This was evident during the Covid pandemic and has continued to some extent (Census 2021). This has led to a greater desire to examine the evidence of the benefits of being in and experiencing nature and the results seem to be significant (Kirby and Scott 2023, and Smith et al 2023). Relevant to this project is the suggested benefits participants state regarding the restoration of nature close to where people live.

7.4 Landscape objectives within AES

One of the aims of this study was to provide evidence on how important the public consider it is for a 'landscape objective' to be included in AES, and what that objective should be delivering. It was recognised that this issue would need to be explored indirectly since many participants were unfamiliar with the concept of 'landscape' (as opposed to broader concepts such as countryside) and the idea that change is influenced by defined policy objectives. However, there was ample evidence from the quantitative and qualitative surveys that people value the landscape, understand variations in character, its contribution to sense of place and patterns of past and present landscape change.

The quantitative survey explored people's views on the priorities for new AES. It found that the majority (72% of the public and 67% of farmers) considered that creating and enhancing attractive landscapes should be a priority. Over 80% of respondents considered that there should be a greater focus on the totality of the landscape.

Similarly, the qualitative part of the study found that people value the landscape and wish to see it preserved. Some commented that certain aspects of the landscape provided them with 'anchors' – key characteristics that helped them to know that they were in a particular landscape and contributed to making it distinctive. Where such features were present, the landscape character and quality are likely to be highly valued.

These findings suggest there is a strong case for ensuring AES deliver positive outcomes for the landscape - including through defining an overall objective and ensuring that scheme components such as options are designed with the landscape in mind. This could include specific, landscape focused options, but should also ensure that other options do not result in unforeseen negative landscape effects. As noted elsewhere, apparent variations in public views about the effects of AES in different landscapes suggest that further communication would be needed to increase understanding of landscape (and other) objectives and the likely implications on the ground.

8. Conclusion and recommendations

Public perceptions on landscape change

This study fills a gap in understanding and methods assessing attitudes to landscape change among those accessing the countryside, in a range of landscape types where AES actions are considered. The results confirm that the participants who use the countryside see AES interventions as having positive impacts on a range of landscapes. This is strongest in urban fringe and arable landscapes. Those involved in the study value the potential interventions offered by AES in a range of settings and landscapes, providing further evidence that AES have a positive impact on landscapes. Using photographs from within the locality and modifying these to show AES existing interventions proved to be an effective approach in both the quantitative and qualitive samples. The study found good agreement between public views and the results of technical assessment of the landscape effects of AES. This was strongest in lowland and urban fringe landscapes, with greater divergence in more highly valued upland, upland fringe and riparian landscapes. This may reflect a number of factors including awareness and understanding of past landscape change and of the policy drivers influencing AES.

The approach could be developed further to focus on more specific landscapes, such as the upland and upland fringe, in order to better understand future changes relating to nature recovery. In addition, future research could explore further interventions, such as those being considered under ELMs, in order to understand the public's possible response to increasing the 'wildness' of some landscapes and actions in the landscape taken to mitigate the impacts of climate change. The focus of the current study was on local landscapes and there could also be value in understanding visitors' views on landscape change.

Recommendation:

Consider further projects that extend the current work to assess the public's response to AES/ELMS actions beyond the current suite of interventions to include changes relating to more radical interventions for nature recovery and climate change.

Landscape resilience

The study has also suggested that, among the participants involved, there is some understanding around the idea of landscape resilience. While the issue was not included specifically in either the quantitative or qualitative surveys, it is implicit in some of the responses. For example, there was some acceptance that some change within local landscapes was needed in order to respond to environmental recovery and climate change, and a recognition that these landscapes had changed over the past decade. This was particularly evident in lowland and urban fringe landscapes where many changes such as hedgerow loss or decline of farmland birds have taken place within the lifetimes of many participants. Many were able to identify key features ('anchors') or characteristics that defined the local landscapes now and in the future. In upland areas many changes took place historically or may be less conspicuous, meaning that measures to increase landscape resilience are more obvious or imply more significant landscape change rather than simply the restoration of lost features. Furthermore, In the qualitative survey there was more opportunity for these to be explored further through the drawing of ideal landscapes and the group collage of future landscapes. In these participatory exercises, the image of a more resilient landscape appears through the presence of cultural features, water environments and biodiverse landscapes.

The research suggests that there would be benefits to be gained from exploring what a resilient landscape is, and how it might be managed. This would seem to be a conversation that many users of the countryside would be willing to participate in. This could be particularly helpful in upland landscapes where there appears to be a potential conflict between the landscapes that people value most highly and the types of changes needed to increase resilience. Policymakers also need to have a greater understanding of 'landscape resilience', to be able to better communicate the importance of landscape resilience to land managers and the wider public, and to design schemes in a way that helps landscapes to become more resilient. It is recommended that the following are considered:

- Exploration of the role of AES in supporting resilient landscapes across different Agricultural Landscape Types.
- Public engagement to identify issues and concerns, and increase understanding of measures to increase landscape resilience in different landscapes.

Recommendation

Consider developing a project to explore and develop the concept of landscape resilience in order to inform policy and land management decisions; convey the importance of landscape resilience to land managers and the wider public; and so that it can be considered in the design of AES. (Also see p167 'Landscape objectives within AES').

AES impact and options

Consideration might be given to how AES can be tailored to the urban fringe and mainly arable landscapes, given the study's findings that the greatest potential for landscape improvements arising from AES relate to these areas. Previous themes within 'classic' CS have focused on farmland close to population centres in the 'Countryside around Towns' and the Community Forest initiative created woodland, much of it on local authority land. Examining the current suite of AES options to determine those most suitable to address the challenges and opportunities present in the urban fringe could also be considered. This could ultimately result in potential physical and mental wellbeing benefits, as well as providing an opportunity to reach a larger proportion of the population regarding the ambitions for AES in helping nature recovery and tackling climate change.

Recommendation:

Consider a review of AES options and actions with a focus on the areas around cities, towns and communities in order to benefit nature, improve the attractiveness of these landscapes and contribute to addressing the impacts of climate change within these landscapes.

Understanding perceptions of landscape change

In order to increase our understanding of the public's perceptions regarding landscape change, we need to consider in more depth variables within any sample, such as age, social data, the impact of environmental values, ethnicity and place of upbringing. This would be a larger project than this one, but the report's findings suggest that it would be worthwhile. It should include seeking the views of those who do not visit the countryside very often but would like to. In order to assess aspects such as age, education, place of upbringing and social data we would suggest a sample of around 1,000+ for each local landscape. While the views of the rural and farming community have been assessed more widely in the literature, a comparative approach using the same methodology would be beneficial with a sample of around 100-200 members of the farming community is suggested.

Recommendation:

Consider developing future surveys regarding AES and landscape change that focus on specific groups in order to extend our understanding of occasional and specific users/non-users of the countryside by ALT, with the addition of the urban fringe.

Access to nature

As well as assessing the potential of AES to enhance the land around areas where people live, it would be useful to explore further the link between AES and the physical, mental and other benefits that the public experience when visiting the countryside. As our understanding of the benefits of interacting with the natural environment increases through the findings of the People and Nature survey (OFNS 2023), the findings of the Census during Covid (OFNS 2021) and the recent meta-analysis (Smith et al 2023, and Kirby and Scott 2023), it is important to consider the role of AES in contributing to this aspect of public health.

Recommendation:

Synthesise existing sources of evidence on the health and wellbeing benefits gained from being in and experiencing nature across society, identifying existing approaches to embedding them in AES.

Landscape objectives within AES

There is considerable information available about landscape character across England²³, and this is supported by the findings of this report. This project has highlighted in both the quantitative and qualitative surveys that people value the landscape, understand variations in character, its contribution to sense of place and patterns of past and present landscape change. In addition, the level to which some of the general public (namely those who use the countryside and have participated in the study), are interested in and willing to contribute to a greater understanding of land management that benefits nature and increases an area's resilience to climate change is high. This suggests there is support for expanding this aspect of AES both in terms of promotion and education. These findings suggest there is a strong case for ensuring AES deliver positive outcomes for the landscape - including through defining an overall objective and ensuring that scheme components such as options are designed with the landscape in mind. This would provide further detail and clarity around the local implementation of AES through the forthcoming Local Nature Recovery Strategies (LNRS). On the issue of a landscape objective for AES, the study suggests that landscape quality, character and function are important elements for AES but an overall objective needs further consideration.

Recommendation:

Ensure that AES design considers positive outcomes for landscape in terms of the overall objectives and options. Considering a range of communications regarding the intended outcomes sought through AES activity would be welcomed by countryside users, potentially through the development of LNRS.

²³ See the Landscape Character Assessment (LCA) database: <u>https://www.landscapeinstitute.org/news/the-landscape-character-database-for-the-uk-and-ireland-is-now-available/</u>

9. References

Austin, R., N. Thompson & Garrod, G. (2016). Understanding the factors underlying partnership working: A case study of Northumberland National Park, England. *Land Use Policy*, 50: 115-124.

Berit, J. & Buchecker, M. (2008). Aesthetic preferences versus ecological objectives in river restorations. *Landscape and Urban Planning*, 85 (3-4): 141-154.

Cotswold AONB (2019). Cotswolds at 50/Future Landscapes. Report commissioned by Summerfield Charitable Trust. <u>https://www.cotswoldsaonb.org.uk</u>

Cumming, G. (2011) Spatial resilience: integrating landscape ecology, resilience, and sustainability, *Landscape Ecology* 26:899–909 DOI 10.1007/s10980-011-9623-1

Cusworth, G. & J. Dodsworth (2021). Using the 'good farmer' concept to explore agricultural attitudes to the provision of public goods. A case study of participants in an English agrienvironment scheme. *Agriculture and Human Values*, 38: 929-941.

Daaoudi, S. & Brooks, E. (2019) Landscape quality: a rapid review of the evidence. Report to Defra Science Advisory Council.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/ 856739/defra-sac-landscape-quality-review.pdf.

Davies, C., Forsyth, E., Davies, M., Beck, A & Vey, J. (2021). Citizen engagement on the environment. Report to Defra, BE0141.

http://sciencesearch.defra.gov.uk/Default.aspx?Module=More&Location=None&ProjectID=20061# :~:text=Citizen%20engagement%20on%20the%20environment%20%2D%20BE0141&text=This% 20project%20aims%20to%20undertake,environmental%20policy%2C%20implementation%20and %20delivery.

Defra (2018) 'A Green Future: Our 25 Year Plan to Improve the Environment' London, Defra <u>https://www.gov.uk/government/publications/25-year-environment-plan</u>

European Commission (2020) Attitudes of Europeans towards the Environment, Climate action and the Environment Theme, Available at: <u>https://europa.eu/eurobarometer/surveys/detail/2257</u> [Accessed on 13/03/2023]

Gobster, P., Nassauer, J. & Daniel, T. (2007). The shared landscape: What does aesthetics have to do with ecology? *Landscape Ecology*, 22: 959-972.

Grammatikopoulou, I., Pouta, E., Salmiovirta, M. & Sioni, K. (2012). Heterogeneous preferences for agricultural landscape improvements in Southern Finland. *Landscape and Urban Planning*, 107: 181-191.

Howley, P., Donoghue, C. & Hynes, S. (2012). Exploring public preferences for traditional farming landscapes. *Landscape and Urban Planning*, 104 (1): 66-74.

King, I. & Martin, J. (2021). Exploring Public Recognition and Perceived Cultural Value of the Special Qualities within English Areas of Outstanding Natural Beauty. *Sustainability*, 13.

Kirby, M., & Scott, AJ. (2023). Green Blue Infrastructure Impacts on Health and Wellbeing; A Rapid Evidence Assessment: CAPE, University College London. DOI 10.17605/OSF.IO/C2XUM

Inwood, H., Fleming, A., Pungetti, G., Selman, P., Jongman, R., Rackham, O. & Makhzoumi, J. (2015). Econets, landscape & people: Integrating people's values

and cultural ecosystem services into the design of ecological networks and other landscape change proposals. Report to Natural England, NECR180. <u>http://publications.naturalengland.org.uk/publication/6172716216352768</u>

LUC & Small Town and Rural Development Group (2005). Landscape Change Scenarios: Final Report and Proposals for Pilot Study. Report to Cairngorms National Park Authority and Scottish Natural Heritage.

LUC & Small Town and Rural Development Group (2008). Landscape Change Scenarios: Final Report. Report to Cairngorms National Park Authority.

LUC (2013). Cumulative impact of Environmental Stewardship on landscape character. Report to Defra, BD5303.

LUC (2013). Developing Indicators and Thresholds for Monitoring the Landscape Impacts of Environmental Stewardship at the National Character Area Scale. Report to Defra, LM0429. http://randd.default.aspx?Menu=Menu&Module=More&Location=None&Completed=

LUC & Rural Focus (2016). Monitoring the contribution that Environmental Stewardship is making to the maintenance and enhancement of landscape character and quality. Report of the Rapid Survey (2014 – 2016). Report to Defra, LM0456.

http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Co mpleted=0&ProjectID=19726

LUC (2019). Monitoring the impacts of AES on landscape character, quality and resilience. Report to Defra, LM0483.

Mills, J., Chiswell, H., Gaskell, P., Courtney, P., Brockett, B., Cusworth, G. & Lobley, M. (2021). Developing Farm-Level Social Indicators for Agri-Environment Schemes: A Focus on the Agents of Change. *Sustainability*, 13 (14): 7820.

Moore, T. & Tully, G. (2017). Connecting landscapes: examining and enhancing the relationship between stakeholder values and cultural landscape management in England. *Landscape Research*, 43: 769-783.

Natural England (2015) NCA Profile: 85. The Brecks (NE385). http://publications.naturalengland.org.uk/publication/4282581

Office of National Statistics (2021) How has lockdown changed our relationship with nature?, Analysis of Census 2021, OFS: London Available at: https://www.ons.gov.uk/economy/environmentalaccounts/articles/howhaslockdownchangedourrela tionshipwithnature/2021-04-26

Office of National Statistics (2023) The People and Nature Survey for England: Adult Data Y3Q1 (April 2022 - June 2022) Available at: <u>https://www.gov.uk/government/statistics/the-people-and-nature-survey-for-england-adult-data-y3q1-april-2022-june-2022-official-statistics</u> [Accessed 13/03/2023]

Policy Studies Institute (PSI), Centre for Rural Economy (CRE) & Land Use Consultants (LUC) (2011). Social Research Evidence Review to Inform Natural Environment Policy. Stage 2: Public Perceptions of Landscapes and Ecosystems in the UK. A report to the Department for Environment, Food and Rural Affairs. Policy Studies Institute. Defra, London, NE0109.

Rackham, O. (1986). The History of the Countryside: The full fascinating story of Britain's landscape. London: J.M. Dent & Sons Ltd.

Research Box, LUC & Minter, R. (2009). Experiencing Landscapes: Capturing the 'cultural services' and experiential qualities of landscape. Report to Natural England, NECR024. <u>http://publications.naturalengland.org.uk/publication/48001</u>

Research Box, LUC & Minter, R. (2011). Experiencing Landscapes: Towards a judgement-making framework for 'cultural services' and 'experiential qualities'. Report to Natural England, NECR045. <u>http://publications.naturalengland.org.uk/publication/162029</u>

Research Box (2022) Visualising new tree and woodland opportunities. Report to Forestry Commission.

Rust, N., Rehackova, L., Naab, F., Abram, A., Hughes, C., Garramon Merkle, B., Clark, B. & Tindale, S. (2021). What does the UK public want farmland to look like? *Land Use Policy*, 106.

Sheppard, S. R. J. (2001). Guidance for crystal ball gazers: developing a code of ethics for landscape visualisation. *Landscape and Urban Planning*, 54 (1-4): 183-199.

Sheppard, S. R. J., Shaw, A., Flanders, D., Burch, S., Wiek, A., Carmichael, J., Robinson, J., & Cohen, S. (2011). Future visioning of local climate change: A framework for community engagement and planning with scenarios and visualisation. *Futures*, 43 (4): 400-412.

Smith A, Hafferty C and Seddon N (2023) Embedding nature recovery in the Levelling-up and Regeneration Bill, Agile Initiative Research Brief, Oxford Martin School, Oxford <u>https://www.agile-initiative.ox.ac.uk/wp-content/uploads/2023/03/LevelUp_Policy_Brief_v5.pdf</u>

Strange, E., Hagen, D., Junker-Köhler, B. & Kaltenborn, B. P. (2021). Public perceptions of ecological restoration within the context of Norwegian landscape management. *Restoration Ecology*, 30 (7). <u>https://onlinelibrary.wiley.com/doi/10.1111/rec.13612</u>

Swanwick, C. (2009). Society's attitudes to and preferences for land and landscape. *Land Use Policy,* 26 (1): S72-S75

Turner, C., Najeeb, F., Haigh, D., Elliott, J. & Quinn, C. (2017). New Agricultural Landscapes: 44 Years of Change. Farmer Survey (ADAS/University of Leeds). Report to Natural England.

10. Appendices

10.1 Outline of Rapid Evidence Assessment into the effectiveness of AES on the landscape, and a gap analysis of evidence

1. Context

The strong body of work on public perceptions of landscapes has focussed on the benefits they wish to gain from their experiences in the outdoors (Research Box et al 2009 & 2011) and on their attitudes to change in the landscape (e.g. Swanwick 2009 & Rust et al 2021). 'Nature connectedness' has become a measure for policy makers and is now squarely linked to health and wellbeing strategies in England. As a result of the pandemic, more people have engaged with the outdoors and there is reportedly a new appreciation of landscape emerging (OFS 2021). At the same time there is, perhaps, a greater consciousness of climate change and the need for action to mitigate against this. People may be willing to adjust their travel patterns or daily life, but it is important to establish if this extends to potential landscape change that may or may not impinge on how they are used to experiencing landscapes and the resilience of these landscapes.

The aims of the Public perceptions of the impact of AES on the landscape project are to:

- Determine the benefits that the public desire from (local) agricultural landscapes, including landscape and cultural benefits.
- Assess the perceived effectiveness of AES in delivering these benefits in different landscape contexts (arable/mixed, farm woods, waterscapes, urban fringe) and different Agricultural Landscape Types (ALTs).
- Evaluate how these perceptions compare with 'expert' opinions of landscape character, quality, function.
- Consider how the findings on public desires might align with future AES development under the Environmental Land Management programme.
- Assess the evidence on the importance of 'landscape objectives' within existing AES, including which objectives most closely align with the public's view.

The public may have some awareness of other imperatives, such as nature recovery to increase biodiversity. However, when thinking of farmed landscapes, there appears to be a lack of evidence of the understanding that the public have of environmental stewardship and AES designed to further landscape function, character and quality. How does the term 'effectiveness' translate in their minds to what they see or experience in their local landscapes?

With the opportunity to shape the future design of these schemes, this commission is tasked with building on recent work (Rust et al 2021) looking at how the public want their farmed landscapes to look, by examining all the benefits they wish to receive from those landscapes.

There may be a difference between the expert view of how farmed landscapes should be managed and people's needs, wants and desires for that landscape - not least because the public's view of nature-based recovery landscapes is largely unknown; this suggests a need for better communication. The research will attempt to provide some indication of how differences can, or cannot, be aligned over time.

2. Rapid evidence assessment methodology (REA)

The REA followed the systematic literature review approach developed by Mills et al (2021) with the purpose of inputting to the survey design. The REA assessed a wide range of material under three research questions.

The first part of the review focuses on the effects of AES on the landscape according to Agricultural Landscape Type (ALT) and landscape theme. The review includes LUC's work on AES option uptake, allowing a more comprehensive analysis across NCAs, ALTs and landscape theme (expanded to include a theme focused on the management of water). Information has been drawn from a range of related studies covering ALT / scenario combinations. This provides the technical benchmark against which public attitudes will be compared under Task 3.

The second focus of the REA was on previous research into public attitudes to landscape and landscape change, focusing in particular on studies examining attitudes to farming and woodland landscapes, and to change affecting those landscapes. This included sources listed in the ITT, with which we are familiar as well as other research into the public's attitudes to landscape change, including unpublished research for Scottish Natural Heritage on public attitudes to landscape dualitative information on public attitudes to landscape, which will be compared with the results of this study and evidence on the effectiveness of different survey and engagement methods.

The final part of the REA examined methodological approaches to public engagement around landscape and landscape change in a range of studies. This included the relative benefits of using realistic but modified photomontages (as proposed in this research project), and illustrative sketches and less realistic (though immersive) CGI type approaches. Evidence on sample selection, the merits of one to one, focus group or online solutions was reviewed as well as the types of questions and the level of explanation and prompting provided to participants in different studies. This has informed the survey design.

3. Evidence review

Key research questions were developed by the project team to consider the aims of the evaluation. These are:

- a. Review studies into the effects of AES on the landscape that:
 - i. Cover site-based assessments of the effects of scheme options on the landscape.
 - ii. Provide a technical benchmark against which public attitudes will be compared.
 - iii. Provide sample squares close to urban areas.
- b. Identify previous research into public attitudes to landscape and landscape change, including:
 - i. Studies examining attitudes to farming and woodland landscapes, and to change affecting those landscapes.
 - ii. Attitudes to landscape change.
 - iii. Information on public attitudes to the landscape.
- c. Identify methodological approaches to public engagement around landscape and landscape change, including:
 - i. The relative benefits of using realistic, but modified photomontages.
 - ii. Illustrative sketches and less realistic (though immersive) CGI type approaches.
 - iii. Approaches to sample selection to inform survey design.

Table 1 (below) provides the definitions that were used throughout this review of evidence.

Key Term	Definition
Agri-Environment Scheme (AES)	Refers to local or national schemes - including Environmental Stewardship, Countryside Stewardship and the new Environmental Land Management Schemes - that provide funding for farmers to enhance the environment and wildlife.
Areas of Outstanding Natural Beauty (AONBs)	AONBs were established under the 1949 National Parks and Access to the Countryside Act. Their purpose are to conserve and enhance the natural beauty of the area (Countryside and Rights of Way Act, 2000). AONBs are managed by partnerships between local authorities or by Conservation Boards. Conservation Boards have an additional responsibility to increase public understanding and enjoyment of the special qualities of the AONB.
National Parks (NPs)	NPs were established under the 1949 National Parks and Access to the Countryside Act. Their purpose is to conserve and enhance the natural beauty, wildlife and cultural heritage of the area; and to promote opportunities for public understanding and enjoyment of the area's special qualities (1995 Environment Act). NPs are managed by their own publicly funded authorities.
Protected Landscape (PL)	In England there are 10 National Parks and 34 AONBs that cover nearly 25% of land in England. These places are designated as protected landscapes due to their natural beauty.
Agricultural Landscape Type (ALT)	A DEFRA/Natural England developed classification for the main types of agricultural landscape composted of six categories: Upland; Upland fringe; Western mixed; Chalk & limestone mixed; South east mixed; and Eastern arable

4. Search Criteria

To effectively use resources, each research question followed different criteria, as identified below:

- **Research Question i**: Evidence from studies into the impact of AES on landscapes via Defra/NE project pages and other websites.
- Research Question ii: Evidence from Defra/NE websites and Google Scholar or Science Direct or Web of Science.
- Research Question iii: Defra project pages, Open Grey and Science Direct or Google Scholar.

In addition to the search engines, the research team included literature identified from the project team and the PSG were asked to suggest evidence for research questions. Published and unpublished literature was included in the review, and this was collected by the research team and steering group. There was no exclusion criteria on the age of the publications suggested by stakeholders.

The project team compiled a database and documented the date of each search. The research team included relevant (green) or uncertain (amber) evidence in the database. To ensure consistency, the searches were repeated by a senior researcher who ensured that the research team brought forward all relevant evidence to be screened.

To avoid the duplication of work, the research team divided the search terms among themselves and documented titles in a shared Microsoft Teams excel file. A separate excel tab was added for each research question, which avoided experiencing technical difficulties with MS Teams.

The following exclusion criteria were applied for all research questions for the evidence review. The inclusion and exclusion criteria were applied by researchers after relevant titles were collated in the database.

- Publications before 2000
 - To identify the most recent evidence, pre-2000 evidence will only be included as suggested by the research team.
- Books
 - Due to time constraints, the review will focus on articles and exclude reviewing entire books, but it will include relevant chapters from a book.
- Only evidence from Europe was included in the evidence review.

5. Search terms

Boolean search terms have been used to develop searches that combine key words. This allowed the research team to gather focused evidence that provided evidence for answering the research questions. An explanation of the key functions of Boolean Search terms is shown in Table 2.

Operator	Search Example	Result
AND	Landscape perception AND public engagement	Find evidence with both 'Landscape perception' and 'Public engagement'
OR	Landscape change OR Public engagement	Find documents with either 'landscape change' OR public engagement
Phrase	Public engagement; landscape perceptions	Find documents with the exact phrase
Multiple Character	Public*, Engag*	Find documents with, 'public' and publicly, engagement and engaged

For the search terms that have been developed to answer each research question for the evidence review, columns across indicate 'AND', whilst terms on rows are synonyms and indicate 'OR' in the search term. The operator 'AND' is used to combine key words together, producing relevant search results. 'OR' is used to broaden the search results. If, when searching grey literature, search engines do not allow Boolean terms to be used, a simple search will be conducted, and relevant titles will be brought forward.

All search terms were tested and alterations have been made to ensure that relevant literature was identified. Under the academic literature for RQ2 and 3, 13 sources were identified. For the grey literature a further 13 sources were reviewed as being 'green'.

6. Evidence Screening

After the relevant titles had been documented in the database, the first screening ranked the publication by reading the abstract and/or executive summary. All

those listed were then rated by a colour coding according to a 'RAG' Rating: namely, 'Red = clearly not relevant'; 'Amber = Uncertain'; and 'Green = clearly relevant'.

The second phase of screening started with publications that have been rated amber or green and involved reading the whole publication. The RAG rating was applied to these publications again and only evidence rated green was considered in the final review, as there were good numbers in both categories.

The project team ensured consistency in the evidence screened by holding an online consistency meeting and keeping the number of staff undertaking the reviews to a few experienced staff. The relevant articles were discussed based on the researchers' rationale for inclusion or exclusion, and the team agreed on how to apply the inclusion and exclusion criteria. To ensure that consistency was retained throughout the project, a senior researcher periodically reviewed the evidence and repeated the search terms, providing feedback to the team. The inclusion and exclusion criteria was updated accordingly.

For each relevant publication the following information was captured on the database:

- Author
- Title
- Date of publication
- Type or source
- Abstract/first paragraph
- Who commissioned the work
- Link to report, where available

The information collated above was displayed in a table to provide an overview of the evidence included.

10.2 Recruitment questionnaire

Natural England Survey of the Countryside

Hello. My name is and I am hoping to speak briefly local people about their use of the countryside locally.

- 1 Can I first check, do you live here, or within the local area?
 - □ yes, here [CONTINUE]
 - yes, within the local area [CONTINUE]
 - no [CLOSE]

2 We would like to speak to anyone who uses their local countryside - whether for work or for leisure (such as walking, cycling, horse riding or having a picnic).

This research would involve you taking part in a 15-minute online survey at a time convenient to you. As a thank-you, we will be offering everyone who takes part the opportunity to win £500 in cash.

Would you be prepared to take part?

- □ yes [CONTINUE]
- no [CLOSE]
- 3 So, can I check that you have visited your local countryside within the past 12 months?
 - □ yes [CONTINUE]
 - no [CLOSE]
- 4 When visiting the countryside locally over the last 12 months, which of these activities have you done? **CODE ALL THAT APPLY**
 - □ walking
 - □ dog-walking
 - □ running/jogging
 - □ cycling
 - □ horse-riding
 - wild swimming
 - kayaking
 - □ climbing
 - ☐ field sports (fishing, shooting)
 - □ nature watching (birds, wild animals)
 - □ foraging
 - □ picnicking
 - □ kids play
 - meeting with friends or family
 - art or other creativity
 - other activities
- 5 Are you, or is any member of your immediate family, employed in any of the following ... ?
 - □ farming
 - □ other agricultural occupation
 - □ arboricultural occupation
 - □ wildlife organisation
 - □ heritage organisation

 \Box no, none of these

Thank you. Please can I take your:

- ... name:
- ... email address:
- ... and contact telephone number:

Many thanks. Some background to the online survey and a link to it will be sent to your email address in the next couple of days

7 **RECORD: recruitment location (town)**

- □ Battle/Hawkhurst
- Bedford
- □ Bowness/Windermere
- □ Bridgwater/Langport
- Leicester
- □ Nelson/Colne
- Oundle
- □ Stafford/Cannock
- □ Thetford
- □ Wokingham

10.3 Text of invitation to the online survey

Subject: Your Local Countryside near {Recruitment Location}

Dear {First Name},

A short while ago you kindly agreed to take part in a survey about the countryside in the {Recruitment Location} area. The survey is about your use of the local countryside, what you value about the countryside and what changes you may have noticed over time. Your feedback is important and will help to shape future environmental policy. Thank you for agreeing to take part.

This voluntary survey is being carried out for DEFRA and Natural England, the governmental body that advises on the natural environment in England, helping to conserve and enhance our natural world. We have been asked to interview a broad mix of people who live locally, so your opinions on these subjects are very important to us.

The survey is completely anonymous and your responses will be entirely confidential.

Any personal data collected is covered by the current data protection legislation. A report of the findings will be produced, but data will be aggregated and anonymised and we will not release the identities of individual participants in the survey. Data will be stored on a secure computer with access only by the immediate survey team and will be deleted within 12 months of completion of the project. For additional information regarding the use of any personal data which is collected, including your rights of access to your data, please refer to the copy of our privacy notice which can be seen here: http://www.researchbox.co.uk/privacy

The online survey will take about 15 minutes and can be completed on a laptop, desktop, tablet or smartphone. You can save your responses at any time and return to them later.

We are offering everyone who completes the interview the opportunity to take part in a prize draw as a "thank you" for taking part – the prize is £500 in cash.

Once again, thank you for helping us with this research. Now please click on this link to take part: <u>Click here</u>

Hugh Inwood The Survey Team (The Research Box, LUC and the University of Gloucestershire)

10.4 Online survey questionnaire

Perceptions of Agri-environment Schemes

Thank you for agreeing to take part in this survey for DEFRA and Natural England. It looks at your local countryside and the changes that might take place in the future.

Q0a Some of the guestions in this survey collect personal data (which may include sensitive special categories of personal data). Each of these questions has a "prefer not to say" option for you if you feel you do not want to provide this information. Any information you do provide will be aggregated and anonymised and processed in accordance with our privacy policy. No information you give is presented in a way that allows you to be identified as an individual.

> Can we confirm that you are willing for this interview to take place? All of your answers will be treated in the strictest confidence.

ves no (The survey will close)

Use of the Countryside

Q1 Over the last 12 months, how frequently have you made leisure visits to the countryside locally? This could be for a walk or run, riding a bike or horse, or just for a picnic or stop to look at the view. 2-3 times over the year

- once or twice a day
- several times a week
- about once a week
- about once a month

Q2 When visiting the countryside locally over the last 12 months, which of these activities have you done? Please tick all that apply

- walking
- dog-walking
- running/jogging
- cycling
- horse-riding
- wild swimming
- kayaking
- climbing

what other activities?

- field sports (fishing, shooting)
- nature watching (birds, wild animals)
- foraging
- picnicking
- kids play
- meeting with friends or family
- art or other creativity
- other activities (please state)
- When you are visiting the countryside locally for leisure, what are the most important Q3 reasons for going?

- about once over the year never

When visiting the countryside locally for leisure, how important are these reasons for visiting?

recreation or exercise mental health benefits history/archaeology the views peace and tranquillity a sense of spirituality opportunities for learning	very important C C C C C C C C C	quite important 	neither	not very important	not at all important
inspiration and creativity seeing and hearing wildlife					
feeling and hearing the weather the environment, eg special wildlife					
habitats places to meet other people being part of a vibrant community					

We have taken some recent photographs of local countryside places and created some scenarios that show how the views might change over time.

This first image shows how the countryside looks now - it is a view of the levels, midway between Taunton and Langport.

Q5 Overall, how attractive do you find this countryside view? Is it

very attractive
quite attractive
neither
not very attractive
not at all attractive
don't know

Q6 How would you rate the countryside in the image for ?

Q4

	very	quite	neither	quite	very	don't
	good	good		poor	poor	know
opportunities for recreation/exercise						
opportunities for mental well-being						
the views						
peace, tranquillity or spirituality						
inspiration						
opportunities for learning						
seeing or hearing wildlife						
a place to meet socially						
accessibility						
carbon capture						
flood alleviation						
being typical of the area						
beauty						

This next image shows how the countryside might look in the future.

Q7 Overall, how attractive do you find this future view of the countryside? Is it very attractive quite attractive neither..... not very attractive..... not at all attractive...... don't know **Q8** Do you think that the future view of the countryside is an improvement on the existing view - or is it worse? a big improvement a slight improvement neither..... a bit worse..... a lot worse..... don't know Why do you say that it is {Q8}?

Change in the Local Countryside

Q9	Overall, in the past 5-10 years, would you say that your local countryside landscapes have improved or got worse?	
	improved a lot	
	improved a little	
	stayed the same	
	got a little worse	
	got a lot worse	
	don't know	
	Why do you say that it has {Q9}	
	What changes have you noticed?	
	What changes to your local	
	countryside landscapes would	

Agri-environment Schemes

The Government in England is changing the way it offers grants and payments to farmers and land managers. Some payments will continue to be linked to improvements aimed at benefiting wildlife and the environment – and new ones will cover such areas as flood alleviation and carbon capture, seeking to reduce the impact of a changing climate. Collectively these are known as agri-environment schemes. Q10 Overall, do you think that these agri-environment schemes are a good or bad idea?

a very good idea	
a good idea	
don't know	
Why do you think that these new	
schemes are {Q10}?	

Q11 What changes do you think these schemes may make to the look and feel of the countryside? What do you imagine will be the result?

	FLEASE	SAT	IF IC	N U	GREI		DISAGR		1 1 1 1 2 3 2 3 1	AICN		113	•••			
							agree	agre	e neither	disa	gre	e	disag	ree	do	
							strongly						stron	gly	kno	ЭW
	the count beautiful	ryside	e will l	oe le	ess					[ב					ו
	it will be le	ess n	eat, n	nore	scruf	fy				Ĺ				I		ב
	it will be le	ess a	ccess	ible						Ę				I		ב
	it will be b	etter	for w	ildlife	Э					[I		ב
	it will be b					inge				[I		ב
	overall it v	will be	e bene	eficia	al to					[I.		
	people															
Q11	Would you be m these agri-envir			-	-				countryside that better for wildlife)					
	to result in	•••••				,			countryside that)					
		much more	slight	neithe r	slightl v less				better for climat	е						
			y more	1	suppo				countryside view	ws 🗆						
		rtive	suppo		rtive	rtive			that are more	_	-	_	_	_	—	_
	countryside that is		rtive						beautiful What does b	oguty						
	less neat, more								mean to you							
	scruffy	_	_	-	_	-	_		context of							
	countryside that is less accessible								countryside							
									landscapes?							

Q12 What do you think the policy priorities should be for these new agri-environment schemes?

	very high priority	quite high priority	neither	quite low priority	very low priority	don't know
creation and management of wildlife habitats						
ensuring security of food production						
action to capture more carbon, for example by planting trees and hedgerows						
protection and improvement of soils						
capturing more water, to alleviate flooding of towns and villages downstream						

182

attracting more wildlife that			
people can see and hear creating and enhancing attractive			
landscapes improving public access to the			
countryside conserving traditional farm buildings			
conserving archaeology a greater focus on the totality of the landscape and how landscape features work together			

Q13 The agri-environment schemes could be focused on different features in the landscape. How great a priority do you think there should be for

now great a phoney do you thin						
	very high priority	quite high priority	neither	quite low priority	very low priority	don't know
woodland creation and management						
improving the biodiversity of						
ditches, streams and rivers creation of marshes and wet grassland						
creation of more flower meadows hedgerow creation and						
management leaving uncultivated buffer strips around the edge of fields						
creation of ponds and lakes restoring natural river courses						
and floodplains restoration of stone walls buildings and archaeology						

This image repeats how the countryside might look in the future.

This future landscape shows more and bigger hedgerows, a wildflower meadow, new field buffer strips, wildlife-friendly ditches and a wetland field that is wilder (and less tidy).

Q14 How attractive do you think these new features in the landscape are ...?

	very attractive	quite attractive	neither	not very attractive	not at all attractive
larger hedgerows					
new woodland planting					
new wildflower meadows					
new wildflower field edges					
wetland habitat ditches					
new wet grassland (wilder, less tidy)					

How would you rate this future countryside for ?

now would you rate this rulure	; countrysiu	e i 0i	ſ			
	very good	quite	neither	quite	very poor	don't
		good		poor		know
opportunities for						
recreation/exercise						
opportunities for mental well-						
being						
the views						
peace, tranquillity or spirituality						
inspiration						
opportunities for learning						
seeing or hearing wildlife						
a place to meet socially						
accessibility						
carbon capture						
flood alleviation						
being typical of the area						
beauty						
Deauty						

Q16 Do you think these changes would make it more or less likely that you would visit the countryside?

much more likely	🗖
a bit more likely	🗖
neither	
a bit less likely	
a lot less likely	
don't know	

Q17 Do you think you would visit the future countryside for a greater variety of reasons than the present landscape?

much more varied reasons		1
a bit more varied reasons		
no, no change	. L	1
don't know	. ⊑]

Importance of the Countryside

Q18 The local countryside can be seen to have many <u>purposes</u>. How important do you think these are ... ?

	very important	quite important	neither	not very important	not at all important
protection of wildlife					
production of timber and other raw materials					
rural employment					
flood alleviation					
production of food					
local identity					
energy production (eg biomass or solar farms)					

Q15

locking in carbon			
opportunities for recreation			
opportunities for learning			
protecting our history			

Q19 The local countryside can have various <u>characteristics</u>. How important do you think these are ... ?

open views opportunities to see or hear wildlife	very important □	quite important □	neither □ □	not very important □	not at all important □
neatness					
a mix of trees and fields					
water					
wildness					
public access					
distant views					
beauty					
peace and tranquillity					
fewer urban or industrial features					
diversity of views					

Countryside Attitudes

Q20 Which of these English countryside landscapes are your favourites? PLEASE SELECT YOUR TOP THREE

	top choice	2nd choice	3rd choice
the coastline			
forests or woods			
mix of fields and woods			
open fens and levels			
mountains and moors			
rolling hills and valleys			
rivers, wetlands and lakes			
lowland heaths			
the fringes of towns and cities			
parkland and designed landscapes			

Q21 Please look at these statements that describe how people might feel about their <u>local</u> countryside. Would you agree or disagree with each statement?

	agree strongly	agree	neither	disagree	disagree strongly	don't know
climate change is already shaping the countryside						
it is important that the countryside does not look untidy and scruffy						
farmers should protect the countryside for future generations						
farmers should be paid for enhancing the environment on their land						

the well being of the environment is just as important as food security			
we need to accept a changing countryside to mitigate the problems of global warming and the loss of biodiversity			
wildness in the countryside is a sign of habitats that are supporting wildlife			
the appearance and character of the countryside is very important			

Ratings for the Local Countryside

Q22	Overall, how would you rate your local countryside?	
	very good	l
	quite good	ĺ
	neither	
	quite poor	
	very poor	I

Q23 How would you rate your local countryside for the following <u>opportunities</u>? For....

, <u>,</u>	,					
	very good	quite	neither	quite	very poor	don't
		good		poor		know
recreation or exercise						
mental health benefits						
history/archaeology						
the views						
peace and tranquillity						
a sense of spirituality						
opportunities for learning						
inspiration and creativity						
seeing and hearing wildlife						
feeling and hearing the weather						
the environment, eg special wildlife habitats						
places to meet other people						
contributing to a vibrant local community						

Q24 And how would you rate your local countryside for ?

	very good	quite good	neither	quite poor	very poor	don't know
protection of wildlife		Ŭ		Ĺ		
production of timber and other raw materials						
rural employment						
flood alleviation						
production of food						
local identity						
energy production (eg biomass or solar farms)						
locking in carbon						

opportunities for recreation			
opportunities for learning			
protecting our history			

Q25 And how would you rate your local countryside for ... ?

	very good	quite good	neither	quite poor	very poor	don't know
open views						
opportunities to see or hear wildlife						
neatness						
a mix of trees and fields						
water						
wildness						
public access						
distant views						
beauty						
peace and tranquillity						
few urban or industrial features						
diversity of views						

Finally, so we can gain an understanding of how opinions vary amongst different types of person, may I ask you a few questions about yourself. May I remind you that each of these questions has a "prefer not to say" option for you if you feel you do not want to provide this information. All the information you provide will be treated as completely confidential:

Q26 Are you a member of any of these organisations?

	PLEASE	TICK ANY THAT APPLY		
		BASC		RSPB
		Countryside Alliance		Wildfowl & Wetlands Trust (WWT)
		CPRE		one or more of the Wildlife Trusts
		English Heritage		Woodland Trust
		Greenpeace		World Wide Fund for Nature (WWF)
		NFU		no, none of these
		National Trust		
Q27	Are you,	or is any member of your immediate	family, e	mployed in any of the following ?
		farming		wildlife organisation
		other agricultural occupation		heritage organisation
		arboricultural occupation		no, none of these
Q28	What is	your gender?		
		male		other
		female		prefer not to say
Q29	How old	are you?		
		18 - 29		60 - 69
		30 - 39		70 - 79
		40 - 49		80+
		50 - 59		prefer not to say
Q30	Do you h	nave children under 18 living at home	?	
		yes		prefer not to say
		no		

How old is the eldest child?

Q31 To which of the following ethnic groups do you consider you belong? White (other)

- Arab/Arab British
- Asian/Asian British
- Black/Black British
- White British

What is the first part of your home postcode? THE FIRST 3 or 4 DIGITS, eg GU52: And what is the first digit of the second part of your home postcode?

eg 7: Q32 Finally, do you want to claim your £5 incentive? If you say 'yes' to this question, we will email you separately to collect your bank account details so we can pay the incentive via BACS.

yes	
no	

Mixed or multiple ethnic background

Other ethnic group

prefer not to say

Thank you.

These details will <u>only</u> be used for the purpose(s) that you have agreed to. Please provide your ...

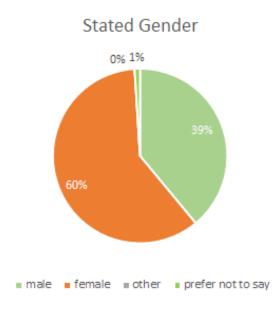
Q33 ... full name:

Q34 ... email address:

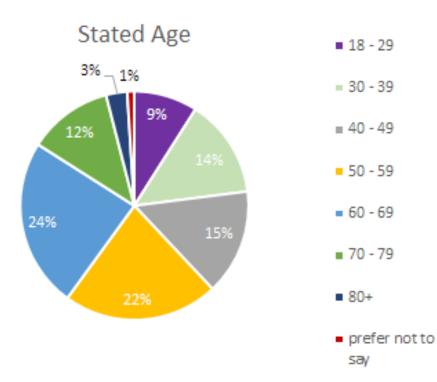
Q35 ... and contact telephone number:

10.5 Survey profile

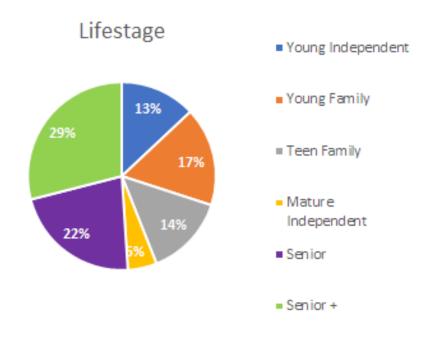
Gender



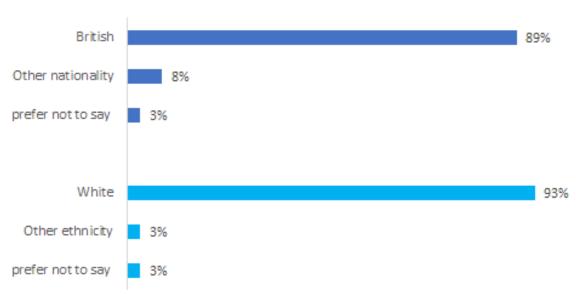
Age



Lifestage

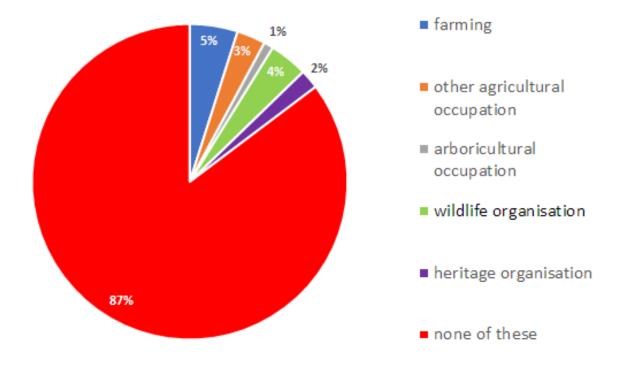


Nationality and ethnicity

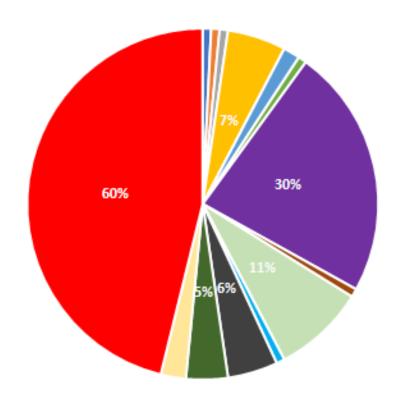


Nationality and ethnicity

Family or personal employment occupations



Membership of countryside-related organisations



- BASC
- Countryside Alliance
- = CPRE
- English Heritage
- Greenpeace
- National Farmers Union
- National Trust
- Ramblers Association
- RSPB
- WWT
- a Wildlife Trust
- Woodland Trust
- World Wide Fund for Nature (WWF)
- none of these

10.6 Focus group and video diary recruitment questionnaire

Focus Groups: (90 minutes long) & Ethnos August/September 2022

Incentive £60 6 respondents per group / 14 groups 2 per area

Introduction: Good morning/afternoon. My name is.....from The Research Box. We are working for Natural England who is a government body responsible for the countryside England. We would like to ask you about the local places in the countryside you like to visit.

We will give you £60 as a thank-you for your participation in the study.

The group discussion is entirely confidential and will be run by an independent researcher. It is a chance for people to have their say but the comments cannot be traced back to you personally.

Since we are trying to get a cross-section of people and places are limited: could I just ask you a few questions to see whether you fit the demographic profile for the group in your area?

Q1 What is the occupation of the chief wage earner in the household?

[RECRUITER; FOR RETIRED PEOPLE, PLEASE USE PREVIOUS OCCUPATION TO PLACE RESPONDENT]

WRITE IN

ABC1

C2DE

2

1

3 per code

Q2 Do you or any of your family work OR volunteer (or have you/they ever worked) for any of the following organisations or in the following roles?

LANDSCAPE MANAGEMENT/ARCHITECTURE*			1	EXC	LUDE
FARMING AND FORESTRY			2	EXCL	UDE
COMMITTEE MEMBER or DECISION MAKER					
OF A COUNTRYSIDE OR RURAL INTEREST GROUP	Р				
EG. COMMITTEE MEMBER FOR NATIONAL TRUST	Г				
OR RAMBLERS' ASSOCIATION OR OTHER RURAL	,				
LOBBY GROUP (SEE LIST)		3	EXCL	UDE	
RANGER/PARK KEEPER	4		EXCL	UDE	
LANDSCAPE RESTORATION		5	EXCL	UDE	
COUNTY COUNCIL/COUNCILLOR					
PARISH OR DISTRICT COUNCIL/COUNCILOR	6		EXCL	UDE	
COUNCIL OFFICER DEALING WITH					
LANDSCAPE OR RURAL AFFAIRS OR RELA	TEI)		7	EXCLUDE
A POLITICAL or LOBBY ORGANISATION				8	EXCLUDE
MARKETING			9	EXCL	UDE
ADVERTISING			10	EXCL	UDE
MARKET RESEARCH				11	EXCLUDE
JOURNALISM				12	EXCLUDE
ENVIRONMENT AGENCY			13	EXCL	UDE
ECOLOGIST/ECOLOGY/ENVIRONMENT*				14	EXCLUDE

*Check the people do not have a degree in Landscape Architecture or Ecology or similar?

Q3a Which of the following best describes your usage of the countryside?

I like to go for local walks (no dog)	1		
I try to get out into the countryside when I can			2
I walk my dog in the area		3	

I go for bike/horse rides locally	4
I go out into the countryside to escape	5
I like to be surrounded by nature	6
I neither use nor am I at all interested in the local countryside	7 Close

1 per code per group

Q3b Which of the following best describes your mobility/ability when using the countryside?

I regularly walk/cycle for many miles and have no issues		1	
I can walk/cycle for many miles if I want to and have no issues			2
I can manage a mile or so but know my limits and don't go much	further		3
I use sticks/other walking aids to help me walk in the countryside	4		
I no longer cycle but I do like a gentle walk in the countryside		5	
I am no longer able to walk far so use a mobility aid to help	6		
Other: (please describe:)		7	

Aim to include a range of mobility/ability

Q4 Do you live in a town, village or rurally isolated,

town	1
village	2
rurally isolated	

3

2 per code per group

Q5 How long have you lived in the Area?

less than 2 years		1	Close
between 2-10 years		2	
between 11-20 years	3		
all their lives/born here	4		

2 per code per group

Q6 How often do you go out into the local countryside where you live?

every	day	1		
	once a week or more		2	
	less than once a week but at least monthly		3	
	less than once a month			4
	never		5	EXCLUDE
Code	1 – High usage			
Code	2 – Medium High Usage			
Code	3 – Medium Low Usage			
Code	4 – Low usage			
For gr	coups:			
1 & 2	equals HIGH USAGE, 3 & 4 equals LOW USAG	E		
Q7	Please could you tell me how old you are?	Exact A	.ge	
	18-30		1	
	31-45		2	
46-60		3		

60+

At least 1 per code per group	At least 1	per	code	per	group
-------------------------------	------------	-----	------	-----	-------

Q8	Gender (DO NOT ASK)
----	---------------------

Male	1	
Female	2	Equal M/F if possible

Q9 How would you describe your ethnicity?

White

- 1. English / Welsh / Scottish / Northern Irish / British Irish
- 2. Romani, Sinti, or Irish Traveller
- 3. Any other White background

Mixed / multiple ethnic groups

- 4. White and Black Caribbean
- 5. White and Black African
- 6. White and Asian
- 7. Any other Mixed / multiple ethnic background

Asian / Asian British

- 8. Indian
- 9. Pakistani
- 10. Bangladeshi
- 11. Chinese
- 12. Any other Asian background

Black / African / Caribbean / Black British

- 13. African
- 14. Caribbean
- 15. Any other Black / African / Caribbean background

Other ethnic group

16. Arab

17. Any other ethnic group

Aim for a mix of ethnicity in each group where possible

Q10 When did you last attend a group discussion?

Less than three months ago	1	Close
Over three months ago		2
Never		3

Thank respondent again and reassure.

Remind respondents to have a pen & paper to hand for the discussion.

Name	
Postcode	
Telephone Number	
Email address	

Recruiter Declaration

I certify that the above information is correct and that the respondent is not known to me personally.

.....

10.7 The qualitative sample

Location Agricultural	Focus Groups of Six	Face-to-	All
_	•	face or	All
Landscape Type (ALT)	Participants (1.5 hour each)	online	
Type (ALT)	High frequency = Daily	onnie	
	and once a week		
	Low frequency = less than once a week but		
	monthly AND less than		
	monthly but not never		
ALT 6 Upland	1. High frequency	F2F	Residence
North	2. Low frequency		• 2 x town dweller
Bowness/Windermere			• 2 x village
ALT 5 Upland Fringe	3. High frequency	Online	• 2 x rurally
North	4. Low frequency	Omme	isolated
Nelson/Colne	4. Low frequency		Age at least one per age
ALT 2 Eastern Arable	5. High frequency	Online	bracket
Midlands	• • •	Onnie	• 18-30
	6. Low frequency		• 31-45
Bedford/Colmworth	7 Lligh froguenov	Quelline	• 46-60
ALT 1 Chalk and	7. High frequency	Online	• 40-00 • 60+
Limestone Mix	8. Low frequency		• 80+
East Anglia			One per usage reason
Thetford			I like to go for
Urban Fringe	9. High frequency	F2F	local walks (no
Midlands	10. Low frequency		dog)
Leicester/Soar			 I try to get out
Valley/Charnwood/Six			into the
Hills			countryside
ALT 4 Western Mixed	11. High frequency	Online	when I can
Midlands	12. Low frequency		 I walk my dog in
Stafford/Cannock			- the area
ALT 3 South East Mixed	13. High frequency	F2F	I go for
South	14. Low frequency		bike/horse rides
Battle/Hawkhurst			locally
			 I go out into the
			countryside to
			escape
			 I like to be
			surrounded by nature
			nature
			Gender, equal mix
			SEG, equal mix

Ethnography: video diaries plus online follow-up interview (4 per area)				
Location ALT	High Usage	Medium	Medium	Low Usage
		High	Low Usage	
		Usage		
ALT 6 Upland	18-30	31-45	46-60	60+
North				
Bowness/Windermere				
ALT 5 Upland Fringe	31-45	46-60	60+	18-30
North				
Nelson/Colne				
ALT 2 Eastern Arable	60+	18-30	31-45	46-60
Midlands				
Bedford/Colmworth				
ALT 1 Chalk and Limestone Mix	46-60	60+	18-30	31-45 (no-
East Anglia				show)
Thetford				
Urban Fringe	18-30	31-45	46-60	60+
Midlands				
Leicester/Soar				
Valley/Charnwood/Six Hills				
ALT 4 Western Mixed	46-60	60+	31-45	18-30
Midlands				
Stafford/Cannock				
ALT 3 South East Mixed	60+	46-60	18-30	31-45
South				
Battle/Hawkhurst				

TOTALS

- There were six no-shows in the focus groups, giving a total of 78 respondents
- There was one no-show in the ethnography, giving 27 respondents
- There were 12 BAME respondents across the sample
- There were nine respondents who had health or disability-related issues.

10.8 Focus group discussion guide

FINAL DISCUSSION GUIDE

Engaging People and communities in shaping agri-environment (AE) schemes to provide the landscapes and cultural benefits which they desire.

Focus Groups 1.5 hours

Local Users of the Countryside

Respondent background

• Introductions, background to individual, household make-up

General awareness/experience of local countryside

- When/where and how do they use the local countryside? (Check definitions of local) What is/is not important to them? What does it mean to them? (see, smell, hear, feel)
- When thinking of particular views of the landscape, what do they like/dislike?
- How comfortable/welcome do they feel in the countryside? Why/why not?
- What is farmed land? What is the role of 'farmland' in the landscape? Visually/Conceptually?
- Do they differentiate between types of landscapes, characters, features, farmland/upland, trees? If so, how?

Location-specific values

- What do they most desire/want/value in their local countryside currently? [Potential use of drawings for ideal look, features of local landscape etc]
- How do they describe their local landscape cf. anywhere else? Does it have a character?
- Specific features or characteristics in the landscape? Is there anything that makes it distinctive/unique or is it just somewhere that they know and belong to?
- Do they know of/value the XYZ (example from NCA description)?
- Is there anything iconic/particular in their local countryside and farmland they would not want to change/want to preserve?

Quick view/response to visualisations [without explanation]

• Looking at some change images local to them, what do they think?

Stimulus A:

- i. Local ALT image: Before, After
- ii. Contrasting ALT image: Before, After
- iii. Riparian image: Before, After

Concepts of Wildness/Neatness (Spontaneous)

- What do the following concepts mean to them in the countryside (rotate order)? Give some examples locally, UK, abroad:
- wildness
- tidiness
- domesticated
- scruffy
- natural
- pretty
- beautiful
- managed.
- Do they think of English countryside as being wild currently? Was there a time when it was perceived to be wild in the past? Probe fully
- Does beauty or prettiness equate to tidiness, being looked after, having structure, being complicated or simple?

Concepts of Wildness/Tidiness Prompted

- Looking at the following images what looks most/least appealing? [Stimulus B: showing a
 generic spectrum range of traditional/neat to more wild/scruffy landscapes]
- How would they order them in terms of 'scruffy' and 'tidiness'?
- Do they feel there would be any benefits/disbenefits of a change in the landscape to be more wild/scruffy generally? And in the following types of changes:
- o more woodland/trees on agricultural/pastoral/arable land
- rushy/marshy grass
- o longer grassland, left unmown
- o wildflower field margins/buffer strips
- wetter ditches
- swales, ponds, bogs
- taller, uncut hedgerows
- o rivers/stream being left to take their own course?
- Would they feel more/less comfortable accessing them?
- Why do they think that these types of changes are being considered?

Detailed Responses to AES-driven change visuals

[Explain many of these changes are AES driven, describe voluntary/payments etc]

- Have they noticed much change in the countryside and on farmland up to now?
- Looking at some change images local to them, what do they think?

Stimulus A:

- i. Local ALT image: Before, After
- ii. Contrasting ALT image: Before, After
- iii. Riparian image: Before, After
 - Do they have any concerns about the following as a result of these changes?
 - the beauty of the view
 - variety/simplicity in the view
 - o openness/enclosure
 - o ability to see buildings or geological or archaeological features
 - o their enjoyment of the countryside
 - o ability to access/level of comfort in accessing the countryside
 - o food security
 - o farmers activities
 - the loss of a traditionally English look
 - less local distinctiveness
 - changes in the spirit of place.
 - Do they have any concerns about the transition period between the before and after images?

Perceptions of change (creative exercises)

- Do perceptions change depending where the changes happen? (Probe acceptability urban fringe, pasture, arable)
- [Stimulus C: games, make these landscapes more scruffy/wet/wooded where/if they think acceptable. Digital drag and drop or draw onto paper image.]
- Playing devil's advocate: how far can they go with the changes, muddier, wetter, more jungly, inaccessible? Should the professionals/government be allowed to do what they want in the countryside? Where are the limits, if any, in their view?
- Should the essential character of 'a landscape' be preserved/maintained somehow? Why/why not? For example, the schemes or other types of landscape change could include a 'landscape objective' which aims for changes to be sensitive to the 'character' of a place or landscape type (Explain NCAs)?

Engagement levers

- What do they see as the most important reasons for these changes and why? Eg:
- conservation generally
- encouraging wildlife
- general environmental benefits
- carbon capture
- flood prevention
- looking more naturalistic
- more biodiverse?
- What engages them most? Is this controversial or does it make sense?
- Would being involved in or volunteering for landscape change increase engagement?
- Does engagement increase when the local community gets involved?

Stimulus A: Local change visualisations + 2 Stimulus B: Generic neat to scruffy images Stimulus C: Games.

10.9 'Before' and 'after' AES visualisations

This appendix contains all before and after visualisations presented to participants. The top image in each pair shows the 'before AES' visualisation, and the bottom image is the 'after AES' image. A brief description of the changes illustrated is given beneath the image pairs.

ALT 1: Chalk and limestone mixed, Thetford



The future landscape shows that the hedge on the right has been allowed to grow up and a wide grassy margin has been sown alongside to create an area for wildlife. A seed mix has been sown in a strip at the top of the field to provide food for wild birds over the winter.

A patch at the top of the field has not been sown all summer to allow a few weeds to grow, providing a place for ground-nesting birds to nest and rear their young.

ALT 2: Eastern arable, Bedford



The future landscape shows hedges which have been allowed to grow up. A wide grassy margin has been sown alongside the hedge to create an area for wildlife. A seed mix to provide food for wild birds over the winter has been sown along the ditch where the bushes are growing.

No herbicide is being used on the edge of the wheat field, so wildflowers have been allowed to grow, providing nectar and seeds for wildlife.

ALT 3: South East mixed, Wokingham



The future landscape shows that the field has been changed from an arable field (growing crops) to a grassy field that is grazed and cut for hay. The footpath is still accessible via kissing gates.

ALT 3: South East mixed, Battle – woodland planting



The future landscape shows the planting of new trees that are now maturing.

ALT 3: South East mixed, Battle/Hawkhurst – riparian option



The future landscape shows that vegetation in the field and beside the river has been allowed to grow up. The natural curve of the river has been reinstated.

A shallow scrape has been created to provide an area for insects which wading birds can feed on.

ALT 4: Western mixed, Oundle



The future landscape shows that hedges have been allowed to grow up. A six-metre-wide grassy margin has been sown alongside one hedge to create a good area for wildlife. A seed mix to provide winter food for wild birds has been sown alongside another hedge.

ALT 4: Western mixed, Stafford/Cannock – woodland planting





The future landscape shows that trees have been planted and left to mature.

ALT 5: Upland fringe, Nelson/Colne



The future landscape shows that some of the stone walls have been repaired and the rest are well maintained. Numbers of grazing livestock have been reduced, allowing the vegetation to grow longer. Hedges have been planted on some field boundaries and there has also been some tree planting.

ALT 6: Upland, Bowness/Windermere



The future landscape shows some tree planting above a restored stone wall. The grazed field in the foreground now has fewer numbers of grazing livestock, with no fertilisers being used.

ALT 6: Upland, Bowness/Windermere – riparian option



The future landscape shows a restored stone wall, with cattle grazing beyond (a new fence stops the grazing animals getting into nearby woodland).

In the foreground the ditch fencing has been removed and the water flow reduced to provide space for water to flood part of the area for the benefit of overwintering birds.

Urban fringe, Leicester



The future landscape shows that hedges have been planted on the field edges. Some trees and bushes have also been planted.

The public can now access the historic site. An interpretation board has been installed to inform people about the history.

Urban fringe, Leicester – arable option



The future landscape shows that trees have been planted on the far edge of the field.

A cereal crop has been grown in the main part of the field, with seed mixes to benefit wildlife planted in blocks on the field edges.

Urban fringe, Leicester – agroforestry



The future landscape shows that trees have recently been planted in the field in the foreground. When the trees are big enough, grazing livestock will be introduced to graze the grass.

Taunton – riparian



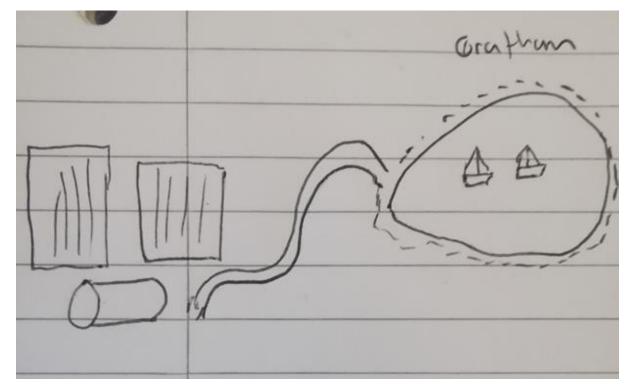
The future landscape shows that a small scrape has been created alongside the ditch (or rhine) to provide a shallow area for wading birds to feed.

The field is being grazed less and is no longer fertilised, so the grass is longer and the water in the ditch is cleaner. Mowing at the side of the ditch has been reduced to allow flowers and vegetation to grow and seed.

10.10 Participant drawings from the focus groups

This appendix contains further participant drawings from the focus groups, organised by ALT.

ALT 2: Eastern arable, Bedford/Colmworth



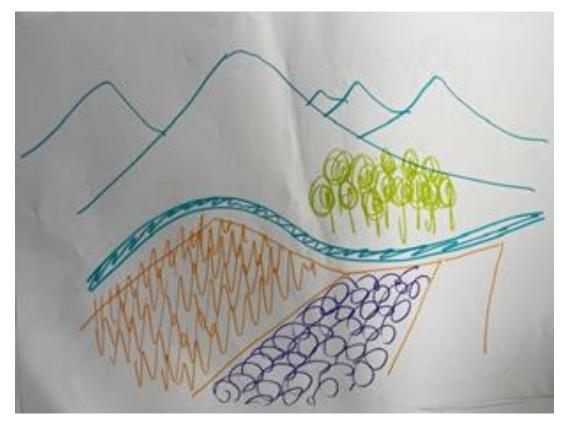
ALT 4: Western mixed, Stafford/Cannock



ALT 5: Upland fringe, Nelson/Colne



ALT 6: Upland, Bowness/Windermere



Urban fringe, Leicester



10.11 Scenarios to test in agricultural landscape types

Scenario	Agricultural landscape type (ALT)					Additional landscape type*	
	Upland	Upland fringe	Western mixed	Chalk & limestone mixed	South east mixed	Eastern arable	Urban fringe
Arable, pasture & mixed in enclosed farmed landscapes		\checkmark	\checkmark	\checkmark	\checkmark	\checkmark	\checkmark
Management & creation of farm woodlands, trees & scrubs	\checkmark		\checkmark			\checkmark	\checkmark
'Waterscapes' & riparian landscapes	Consultants to advise						
Urban fringe	Consultants to advise						
Riparian zones	Consultants to advise						
Woodland	Consultants to advise						

*The Urban fringe type will overlap or connect with some of the other 6 ALTs.



A COLLABORATION BETWEEN



Royal Agricultural University



CONTACT

ccri.ac.uk +44 (0) 124 714122 ccri@glos.ac.uk