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Evidence Project Final Report

Evidence Project Final Report

Department for Environment Food & Rural Affairs

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■ Project identification

1. Defra Project code

   TWF-16

2. Project title

   Mapping the social benefits of woodland creation and expansion – proof of concept for setting up a longitudinal network

3. Contractor organisation(s)

   Forest Research

4. Total Defra project costs (agreed fixed price)

   £266,275

5. Project: start date 06.01.2023

   end date 31.03.2025

6. It is Defra's intention to publish this form.

   Please confirm your agreement to do so. .... **YES** ☒

   (a) When preparing Evidence Project Final Reports contractors should bear in mind that Defra intends that they be made public. They should be written in a clear and concise manner and represent a full account of the research project which someone not closely associated with the project can follow.

   Defra recognises that in a small minority of cases there may be information, such as intellectual property or commercially confidential data, used in or generated by the research project, which should not be disclosed. In these cases, such information should be detailed in a separate annex (not to be published) so that the Evidence Project Final Report can be placed in the public domain. Where it is impossible to complete the Final Report without including references to any sensitive or confidential data, the information should be included and section (b) completed. NB: only in exceptional circumstances will Defra expect contractors to give a "No" answer.

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   (b) If you have answered NO, please explain why the Final report should not be released into public domain

Executive Summary

7. The executive summary must not exceed 2 sides in total of A4 and should be understandable to the intelligent non-scientist. It should cover the main objectives, methods and findings of the research, together with any other significant events and options for new work.

> This mixed-methods study considered the social benefits from and attitudes to new woodland for local communities. Utilising community-level questionnaire surveys and qualitative in-depth interviewing of individual visitors to new woodland sites, the research team developed a novel methodological approach which allowed for a longitudinal investigation into the social impacts of tree planting and new woodland creation.
>
> The research objectives:
>
> 1. Identify and develop connections with forest/woodland sites and communities to study over time.
>
> 2. Explore attitudes, motivations, actions, barriers and benefits linked to new woodland creation and expansion (new planting) for diverse communities.
>
> 3. Develop and test a proof-of-concept for longitudinal research to study how attitudes, motivations, actions, barriers and benefits for communities local to new planting change over time.
>
> Research questions:
>
> - RQ1 What do local community members who have visited the site think about the intervention (new planting and expansion of woodland) and how it has come about?
>
> - RQ2 What do local community members who have not visited the site (but are aware of the intervention) think about it and how it has come about?
>
> - RQ3 What impacts has the intervention had on local community members who visit/engage with the site?
>
> - RQ4 What impacts, if any, has the intervention had on local community members who have not visited (but are aware of the intervention)?
>
> - RQ5 How do we best capture the above change in attitudes, motivations, actions, barriers and benefits linked to woodland creation and expansion for diverse communities over time?
>
> - RQ6 What lessons can we take from the above to inform such interventions to help them improve provision of benefits and to maximise access/engagement with such sites (where this is an aim) and minimise negative impacts (on site and visitor)?

Key findings:

- Overwhelmingly, the studied communities believe local tree planting and the creation of new woodlands is a good thing.

- New woodland can provide unique experiences and opportunities for visitors (e.g. related to sensory experience and opportunities to build connections), but non-visitors can benefit from these woodlands too (e.g. building pride in place).

- People who visit their local new woodlands more frequently have better mental wellbeing (correlational). Mental wellbeing may be enhanced by:

    - The unique sensory experiences and learning opportunities afforded by new woodlands;

    - Observing the rate of (positive) change in newly planted woodlands, providing cognitive benefits; and,

    - Opportunities to develop relationships with growing trees.

- Respondents with the highest level of reported anxiety were those who never visit the woodlands.

- The more frequently people visit the new woodlands the more they value them.
- Local communities believe the benefits to wildlife from new woodlands is important.
- The majority of visitor and non-visitor respondents believed that new woodland confers a degree of protection from (built) over-development of their local area.
- Most visitors to new woodlands feel a sense of personal responsibility towards them, which may be related to opportunities to develop relationships with growing trees.
- Mixed methods longitudinal research is a useful way of exploring people's relationships with their local natural environments and how these change over time. Qualitative methods which utilise retrospective and prospective methods are able to reveal unique insights into the role of lived experience in how people relate to and are impacted by local nature interventions.
- We have developed and tested an innovative mixed methods longitudinal methodological approach for application in future research into this topic and any research which considers how the relationship between local communities and local natural sites changes over time and how time influences the attitudes and benefits that can be obtained.

Project Report to Defra

8. As a guide this report should be no longer than 20 sides of A4. This report is to provide Defra with details of the outputs of the research project for internal purposes; to meet the terms of the contract; and to allow Defra to publish details of the outputs to meet Environmental Information Regulation or Freedom of Information obligations. This short report to Defra does not preclude contractors from also seeking to publish a full, formal scientific report/paper in an appropriate scientific or other journal/publication. Indeed, Defra actively encourages such publications as part of the contract terms. The report to Defra should include:
- the objectives as set out in the contract;
- the extent to which the objectives set out in the contract have been met;
- details of methods used and the results obtained, including statistical analysis (if appropriate);
- a discussion of the results and their reliability;
- the main implications of the findings;
- possible future work; and
- any action resulting from the research (e.g. IP, Knowledge Exchange).

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Introduction

Policy background

England recently experienced high levels of tree planting as a result of the England Tree Action Plan (ETAP 2021-2024) planting targets (ETAP was published under the previous government). New woodlands and non-woodland treed areas will contribute to a number of government policy objectives, including an Environment Improvement Plan (EIP) target which aims to ensure that everyone in England everyone should live within 15-minutes walk of a green or blue space (EIP was published under the previous government). The planting will contribute to public health and wellbeing objectives, alongside biodiversity, net zero and air and water pollution mitigation ambitions.

Literature summary

There is a body of research which evidences the social benefits obtained from trees and woodland. For example, see O'Brien and Morris (2013) for a review of the wellbeing benefits, this link for current research on wellbeing benefits at Forest Research, and Hall et al. (2020) for a review of the socio-cultural values people ascribe to trees and woodlands. There has also been research undertaken on the characteristics of woodland people respond to (Edwards et al., 2010), including human wellbeing responses to biodiversity within forests (Jones et al., 2024). Thompson *et al.* (2019) in their evaluation of Scottish Forestry's 'Woods In and Around Towns' programme[1], a programme of works to improve the location, accessibility and management of urban woodlands (any age) to encourage more use from local people, evidenced benefits in terms of stress reduction, connectedness to nature and social cohesion, but no improvement in overall quality of life. The authors concluded that evidencing the health benefits of greenspace interventions is difficult.

A review of the literature specifically related to new woodlands or tree planting sites and community/social benefits returned very few relevant articles. Ní Dhubháin *et al.* (2009) looked at two case study sites in Ireland - one with an immature forest with plans for further afforestation and one with a mature forest. Through interviews with local stakeholders they determined that the social impacts of the immature forest were mostly negative (impacts on price of land, low amenity value of Sitka spruce plantings), while older forests were viewed more positively (part of history/culture and for recreation and amenity value). Other articles returned had a general focus on the benefits of trees, but not new planting, or focused on the impact of urban regeneration projects, including new tree planting, but had more of a focus on installation of hard infrastructure, such as cycleways and footpaths and so were deemed not to be relevant. This confirmed that the majority of research in this area focuses on established woodland or trees and woodland in general and there is a lack of research on whether new woodlands confer the same benefits as more established woodlands.

In reviewing the literature to scope potential methodological approaches, there was clear evidence that life experience influences how people think about and experience nature and greenspaces (Beery and Lekies, 2018; Lohr and Pearson-Mims, 2005; Milligan and Bingley, 2007). That our social environment, socialisation, and intersectional identities shape our preferences and practices regarding nature (Karlsdóttir, submitted for publication (for a different project)) and that consideration of relational person-environment experience is also important, but potentially complicated to adequately capture through research (e.g. Palmer et al., 2023). Environmental changes such as woodland development occur over time, and so do the impacts on the people who live and recreate in these environments. It is therefore prudent that research strives to capture impacts as they take place. Perceptions can change over time and 'snapshot' research which captures changes at a single point in time risks capturing positive or negative perceptions which are not representative of the long-term social processes and outcomes. For example, it might take people a long time to rebuild their sense of place with a specific area after implementation of a nature recovery initiative (Åberg and Tapsell, 2013). Longitudinal research which investigates how people experience change in their natural environment over time holds a lot of promise to this end, however it is an underutilised approach in environmental research. In conclusion, the research team chose to combine a longitudinal approach with qualitative data collection to allow for a better understanding of these life experiences alongside current and past experiences of local tree planting sites, alongside quantitative data collection to enable a community-level view and testing of potential quantitative longitudinal approaches.

Research objectives (RO)

1. Identify and develop connections with forest/woodland sites and communities to study over time.
2. Explore attitudes, motivations, actions, barriers and benefits linked to new woodland creation and expansion (new planting) for diverse communities.
3. Develop and test a proof-of-concept* for longitudinal research to study how attitudes, motivations, actions, barriers and benefits for communities local to new planting change over time.

*proof-of-concept refers to establishing through testing whether such longitudinal research is feasible, what it would contribute, and how it could be achieved.

Research questions (RQ)

RQ1 What do local community members who have visited the site think about the intervention (new planting and expansion of woodland*) and how it has come about?

RQ2 What do local community members who have not visited the site (but are aware of the intervention) think about it and how it has come about?

RQ3 What impacts has the intervention had on local community members who visit/engage with the site?**

RQ4 What impacts, if any, has the intervention had on local community members who have not visited (but are aware of the intervention)?

RQ5 How do we best capture the above change in attitudes, motivations, actions, barriers and benefits linked to woodland creation and expansion for diverse communities over time?

RQ6 What lessons can we take from the above to inform such interventions to help them improve provision of benefits and to maximise access/engagement with such sites (where this is an aim) and minimise negative impacts (on site and visitor)?

*May include other interventions e.g. improved access.

** Engagement in this sense means more formal or intensive engagement.

Methodology

For more a detailed methodology and learning for other projects seeking to research the impact of environmental change on communities and individuals over time (including findings relating to RQ5), please see the separate Methodology report (see Section 9 for details). Ethical approval was obtained via Forest Research's ethical approval process.

The research team adopted a mixed methods approach, collecting both quantitative and qualitative data over several time points (or waves) over the project duration (2 years). The benefit of mixed methods research is the ability to combine a small sample of in-depth research with generalisable findings from community-level surveys. This allowed for a holistic investigation into the impacts of tree planting on a personal and community level. The qualitative longitudinal approach allowed for explicit consideration of time within the research, including observed change over time, as well as the influence of time on participants (e.g. past experiences and future hopes). An intensive longitudinal approach was utilised to expand the time frame considered using retrospective and prospective methods. The quantitative approach aimed to develop and test a longitudinal methodology as a base for future research on this subject and for application to other research seeking to study impacts of an environmental intervention at a hyper-local scale (see below). Therefore, the quantitative methods only provide results showing a 'snapshot' of responses to the RQs.

Site selection

Two study locations were chosen – the Forest of Marston Vale in Bedfordshire and The National Forest covering parts of Derbyshire, Leicestershire, and Staffordshire. Both locations are on the urban periphery and in post-industrial locations with active tree planting. In both locations the site partners were interested in the research and cooperative with sharing information and access permissions. The site partners helped to identify new tree planting locations ('study sites') suitable for the study. Requirements included a large enough surrounding population to enable statistical analysis for the quantitative part of the research. Initially a sample population boundary representing those living within a 15-minute walk of the new planting boundary was chosen, as the Government's Environmental Improvement Plan (2023) aims to ensure that everyone in England everyone should live within a 15-minute walk of greenspace. However, this proved too restrictive (see quantitative methodology section below) and so this was increased to 30-minutes walk. Three clusters of study sites were selected in the Forest of Marston Vale. Made up of 9 individual small new woodland sites, clusters were identified where the sites had overlapping population boundaries (were in close proximity or adjacent). Four study sites were selected in The National Forest.

Sociodemographic diversity of the sample population was also an objective and Index of Multiple Deprivation scores were examined as part of the site selection process, along with population age profiles and local tree cover. The sites were required to have had tree planting within the last 20 years and a diversity of planting ages was aimed for. Full details of the study sites are available in the separate Methodology report.

Summary of quantitative longitudinal methodology

The quantitative part of the project was conducted over two waves. The Wave 1 questionnaire (appendix 2) was delivered in early 2024, and utilised two delivery modes, CATI (computer assisted telephone interview) and face to face. Wave 1 was intended primarily as a development or pilot stage, to test the method and the modes of delivery and therefore the results from the two waves were not compared to explore change over time. Results and learning from

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[1] https://www.openspace.eca.ed.ac.uk/projects/woods-in-and-around-towns/ programme website

Wave 1 are presented in appendices 8 and 9. The learning from Wave 1 facilitated development of the questions included in the survey for Wave 2 and resulted in the decision to only use face-to-face survey interviews as the delivery mode. It also led to the decision to pre-define all the relevant postcodes for the residential addresses of participants in Wave 2 to guarantee that all were within a 30-minutes walk (2500m) distance of the woodland.

The questionnaire for Wave 2 (appendix 3) was slightly shortened where questions had not produced high quality data in Wave 1. Seven additional statements about the named woodlands were added, based on findings from the qualitative interviews. The qualitative interim findings were also used to refine the wording of some of the existing statements. The Wave 2 questionnaire included a more clearly worded process to ensure correct identification of the named woodland site before respondents began answering questions.

Wave 2 of the longitudinal study questionnaire was conducted with populations within 30-minutes walk of the study sites in November 2024. The questionnaire was delivered through face-to-face surveying. Home postcodes were requested to establish the eligibility of potential respondents.

Due to an over-riding priority to ensure that the sample was 'hyper-local' (within 30-minutes walk of a study site) and the requirement for a large enough sample size to undertake the proposed analysis and test for statistical significance, no quota sampling was applied. However, it was stressed to the interviewers that there was a requirement to obtain completed questionnaires from both those who visited the woodland, and those who did not to assist with answering the RQs which relate to site exposure. Ideally the sample would be representative of the study community in relation to key sociodemographic variables shown, by Natural England's People and Nature cross-sectional longitudinal survey, to affect engagement with nature (e.g. age, gender, ethnicity).

In Wave 2 the questionnaire included 30 questions, primarily closed-ended. Sections related to views of the newly planted trees, attitudes to the woodland, details of woodland visits and activities, engagement with woodland activities besides regular recreational visits, self-reported health and well-being questions, a suite of 17 attitudinal statements about the social and cultural values of young woodland and newly planted trees in the local area, and socio-demographic information. Respondents were routed past the questionnaire woodland visit questions if they indicated that they knew of the woodland but had not visited since new trees were planted.

Analysis aimed to investigate whether peoples' responses differed according to socio-demographic characteristics, but also whether responses differed according to frequency of woodland visit (including no visit at all), and frequency of spending time in greenspace. Open-ended responses were grouped together after data collection and analysed as for the closed-ended questions. Statistical analysis was carried out in R version 4.4.2 and followed an analysis plan designed around the first four research questions (available in the separate Methodology report, along with more detail on the statistical analysis). Unless otherwise stated, 5% is the significance level considered in all reporting. Confidence intervals for proportions were calculated using a logit transformation and represented in bar plots. Chi-squared tests were run to assess statistically significant differences between response proportions. Wilcoxon rank test has been used for scores comparisons. Statistical models have been run to assess impacts of factors more widely. For ordinal responses (e.g. Likert) data, ordinal logistic regression models (clm() function, Christensen, 2019) or multinomial logistic regressions for categorical responses were run (multinom() function, Venables and Ripley, 2002), with likelihood ratio chi-squared tests to determine significance.

The 17 statements about the social and cultural values of trees, where participants were asked to score agreement level in relation to their local new woodlands, are part of a set of 19 statements developed by Forest Research about trees and woodlands in general, that have been utilised in other research projects (Social and cultural values of treescapes - Forest Research). Two statements were removed from our study questionnaire as they were not relevant to new woodland and young trees. The main application of the original research was through a nationwide (England only) questionnaire with 5000 people which asked respondents about how much they value different attributes of (all) local trees and woodlands (O'Brien et al, 2024). Respondents to this all-England survey were asked to indicate level of agreement or disagreement with the 19 'value' statements using the sentence "I value my local trees and woodlands because...". To determine whether the differences between our survey (asking in relation to local new woodlands) and the all-England survey (asking about local trees and woodlands in general) were statistically significant, a Chi square test was run. However, comparisons across the two datasets must be considered carefully given the different aims, sample sizes and data gathering modes.

Summary of qualitative longitudinal methodology

Qualitative longitudinal (QlL) research is any qualitative research which is repeated with the same participants on two or more occasions. By adopting a temporal methodology, QlL research has a unique ability to explore dynamic processes as they unfold in real time. The qualitative aspect allows the researchers to understand these processes in great depth, often approaching them through people's lived experiences, providing "insights into how people narrate, understand and shape their unfolding lives and the evolving world of which they are a part" (Neale, 2020 P.1). QlL research is grounded in an interpretivist epistemology and the 'truth' is produced from the interactions between the participant and the researcher (see Brinkman and Kvale, 2014). As the conversation unfolds, new explanations may

emerge or previous explanations might be challenged in the light of new information or changes in context (Bernardi and Sánchez-Mira, 2021; Vogl and Zartler, 2021). QlL research does not aim to produce generalisable findings, but rather to provide a detailed account of the individual, particularly suitable when undertaking exploratory research. It accounts for historical, geographic, societal and institutional factors as well as changes in human agency and subjective evaluations of life experiences. In the case of tree planting, this provides an opportunity to investigate why people experience tree planting the way they do, what life history and other contextual factors lie behind their perceptions and values, and how these might change as people experience the growth of the trees and resulting change in their environment.

There are two types of longitudinal research: intensive and extensive (Neale, 2020). In extensive research, participants are followed over a long timeframe, sometimes the course of their lives. To reduce participant fatigue, waves are few and far between. In intensive longitudinal research, the timescale is shorter and the data collection waves therefore occur at frequent intervals to collect the required data. This method is often more pragmatic due to project durations and funding constraints. While there is less scope to track changes as they happen, there are opportunities to explore a longer timeline through the use of prospective and retrospective research methods, i.e. methods used to talk about the past and the future (Neale, 2020). The data collection methods or instruments can change between encounters in an iterative fashion, following up on emerging topics or to explore a topic in different ways. Sample sizes are generally smaller than for other interview studies, but the volume of data produced is large given the multiple encounters. Ideally, the data are analysed case by case and temporally, as well as across cases and/or themes (Millar, 2007; Thomson, 2007; Dwyer and Patrick, 2021) between each data collection round (Smith, 2010). Therefore, rigorous QlL research is iterative, and adaptable, responding to the dynamic world it aims to investigate. Analysis of QlL research is intensive and time-consuming, but provides rich, in-depth results. In this intensive QlL study, we utilised prospective and retrospective research methods in three waves of data collection over 12 months, with 9 participants from across the two study locations.

Collecting detailed in-depth data through QlL research places more emphasis on the rapport between the interviewer and the participant. In QlL research it is acknowledged that the two will build a rapport over time, as opposed to aiming to eliminate researcher bias. This rapport can be advantageous, in terms of eliciting rich, personal data. However, it can also raise new ethical questions, such as the enhanced possibility of more personal or sensitive material being brought up (Dwyer & Patrick, 2021; Neale 2013; see also Karlsdóttir 2025). It is important that the researcher sensitively manages this during (and sometimes after) the research. This unique aspect was fully considered as part of the ethics approval process and learning is reflected on in the separate Methodology report.

QlL research is growing in popularity but is yet largely untested in environmental research. We argue that the method has a number of benefits, including the ability to track changes over time, the volume of data from each respondent providing real in-depth information, and the ability to use various creative research methods. This holds promise for investigating how people and communities experience changes to their treescapes as well as wider nature recovery interventions. A part of this research project was therefore to comment on the suitability of longitudinal approaches for such research. We also wished to make recommendations on the optimal approaches to longitudinal research for such purposes. We note that the development of novel methodologies takes time and experimentation. We therefore comment on our methodology as part of our research results.

Seventeen participants were recruited on the study sites using a purposive recruitment approach. A roughly even split of participants between the two study locations was achieved, and where possible, a range of ages and genders (partly enabled through recruitment at different times of the day and days of the week). However, for practical reasons, recruitment was mainly based on participants' willingness to engage and commit.

Three waves of QlL interviewing took place. All 17 participants took part in the first wave of interviewing (October-November 2023) which used a life history approach with personal timelines, where participants were asked to draw a timeline of their life and any events relevant to their relationship with nature. The timelines were referred to in the interviews to assist exploration of the individuals' life history and personal values and beliefs, as well as how they value nature more broadly. For the second interviews (Wave 2) (May 2024), data collection focused on participant anticipations, expectations and visions for the future. One person dropped out between the first and second waves. On-site walking interviews were used in the final interview (Wave 3) (August-September 2024). Only one person dropped out between Waves 2 and 3. As we had expected a higher drop-out rate overall, the decision was made to carry forward a selection of 10 participants into the third wave, based on available researcher resource to allow in-depth analysis of the remaining cases.

We integrated our thematic analysis (Braun and Clarke 2020) within the case biographies, using the themes as sub-headings to structure the reporting. As the case biographies method provides a lot of data, this helped us structure that data in a meaningful way which speaks to the research questions. For each case, we chose a small number of themes which the case particularly spoke to. The themes were chosen to ensure both representation of common themes emerging from the wider dataset as well as themes which were less common but provided unique insights.

Results

Quantitative longitudinal results – summary and key findings

The results presented in this section are from Wave 2 (Wave 1 was primarily for method development). Full results are available in appendix 9, including additional tables and figures. All statistically significant results reported used a significance level of 0.05.

Introduction to sample

A total of 589 completed questionnaires was available for analysis. This comprised 499 visitors (to one of the 13 woodland study sites across the 2 locations) and 90 non-visitors. There was an almost equal split between response numbers from the National Forest sites (248) and the Forest of Marston Vale sites (251). Between these two locations there were 13 study sites (9 sites across Forest of Marston Vale and 4 across National Forest). The number of respondents per study site ranged between 54 and 91 (see table 1 in Appendix 1 and see Methodology report for more information). Respondents were asked to respond to questions specifically with their local woodland in mind. If a respondent's primary residence was within 2.5km of multiple study site woodlands[2] there were additional questions to establish which woodlands they had heard of, and which they visited most often (or were most familiar with).

All socio-demographic data for respondents are shown in table 2 (in appendix 9), which includes a breakdown by visitor and non-visitor. Sixty four percent of respondents were over the age of 55, 52% female, 88% White, 46% in full-time employment, and 54% had lived in the area for more than 10 years. Fifty four percent had a dog and 77% access to a garden. When asked "In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces?" 31% said once or twice a month. A further 24% said once every 2-3 months, and the same percentage said once every 6 months or less often. Ten percent said once a week.

Sixty four percent of **visitors** were over the age of 55, 52% were female, 89% were White, 46% were in full-time employment and 34% were retired. Fifty seven percent of visitors had lived in the area for more than 10 years and 58% had a dog. Eighty two percent of visitors had access to a garden. Nearly half of respondents visited the study woodland several times per month (47%), and a further 30% several times a week.

Sixty three percent of **non-visitors** were over the age of 55, 54% were female, 82% were White, 62% were economically active (in full or part time employment, or self-employed) and 26% were retired. Thirty seven percent of the non-visitors had lived in the area for more than 10 years, 30% had a dog, and 54% had access to a garden. Although the non-visitors had not visited their local woodland in the previous 12 months, 38% of them had spent time outside in some other greenspace 'a few times a week' (respondents were asked two different questions – one about woodland site visits and one about visits to greenspace generally).

Fewer non-visitors had a dog (-28%) and access to a garden (-28%). There is a slightly lower percentage of White respondents (-7%), of retired people (-8%), and fewer respondents had lived in the area for more than 10 years (-20%). This has not been tested for significance because of low numbers.

What do visitors and non-visitors think about the new planting?

Visitors and non-visitors were positive about the new planting. All respondents were asked whether they thought that the planting of trees at the woodland site was a good thing or not: 98% of visitors and 80% of non-visitors said they thought it was a good thing. This difference in percentage response was tested to see whether there was a statistically significant difference of opinion about the new trees planted between visitors and non-visitors, and it was found that visitors were significantly more likely to say it is a good thing (p=0.01). However, due to the low frequency of negative responses, this result must be considered with caution.

Visitors are generally satisfied with the characteristics of the woodlands. Visitors were asked whether they agreed or disagreed with 22 statements about the woodland (see appendix 3 and 9 and figure 1 for full list). Statements with the highest level of **agreement** included "the woodland is good for wildlife" (97%), "the woodland is good because it is important to plant more trees" (95%) and "the woodland has improved local landscapes" (95%). Ninety three percent believe that new woodland confers a degree of protection from over-development of their local area. Eighty eight percent of visitors think new woodlands can support the development of pride in place and 83% agree that the woodland has helped to create a sense of community. Most visitors to new woodlands feel a sense of personal responsibility towards them (82%).

Statements with the highest level of **disagreement** included "the woodland seems dark and unwelcoming" (68% disagree), "I worry about anti-social behaviour taking place in the woodland" (67%) and "the site is often dirty with litter or dog mess" (63%).
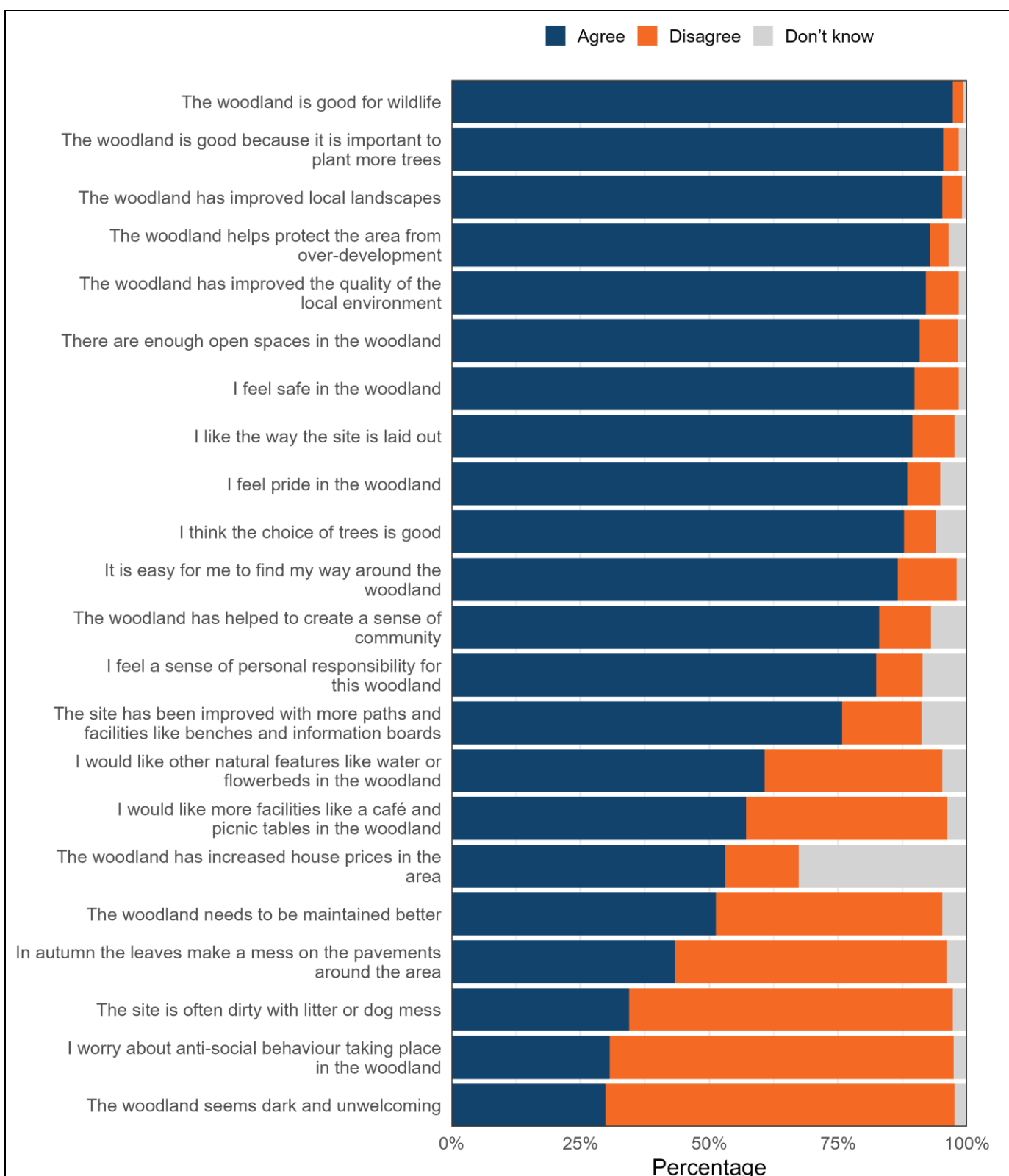
Figure 1: Attitudes to new woodland sites - visitors. Percentage agreement with each statement. National Forest and Forest of Marston Vale, November 2024.

There was some variation in woodland satisfaction by visitor respondent type. There were some statistically significant differences in responses based on peoples' socio-demographic characteristics. For example, those who had lived in the area the **least** amount of time were more likely to **agree with negative statements** such as "woodland seems dark and unwelcoming", "in autumn the leaves make a mess on the pavements around the area" and "the site is often dirty". Females were more likely to agree that they would like more facilities such as picnic tables and a café (compared to males). Females were also more likely to agree that they worry about anti-social behaviour in the woodland. Those respondents with access to a garden demonstrated a higher level of agreement with statements that

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[2] This only related to the three clusters of woodlands in the Forest of Marston Vale.

say positive things about the woodland, and a lower level of agreement with statements that say negative things about the woodland, than those people without access to a garden.

Non-visitors were also generally satisfied with the woodlands and their characteristics. They were asked whether they agreed or disagreed with 10 of the statements about the woodland that were also asked of visitors (see appendix 3 and 9 and figure 2). These 10 statements were selected as it would not have been necessary to visit the woodland to have an opinion (e.g. they could be answered based on knowing about them or seeing them from outside). The two statements with the highest level of agreement (86%) were: 'The woodland helps protect the area from over-development'; and 'The woodland is good because it is important to plant more trees'. New woodlands can support the development of pride in place, even for people who do not visit, as we found that 70% of non-visitors agreed with the statement "I feel pride in the woodland" (the equivalent result for visitors was 88%). The two statements with the highest level of **disagreement** were both negative statements: 'I worry about anti-social behaviour taking place in the woodland' (54%) and 'In autumn the leaves make a mess on the pavements around the area' (34%).
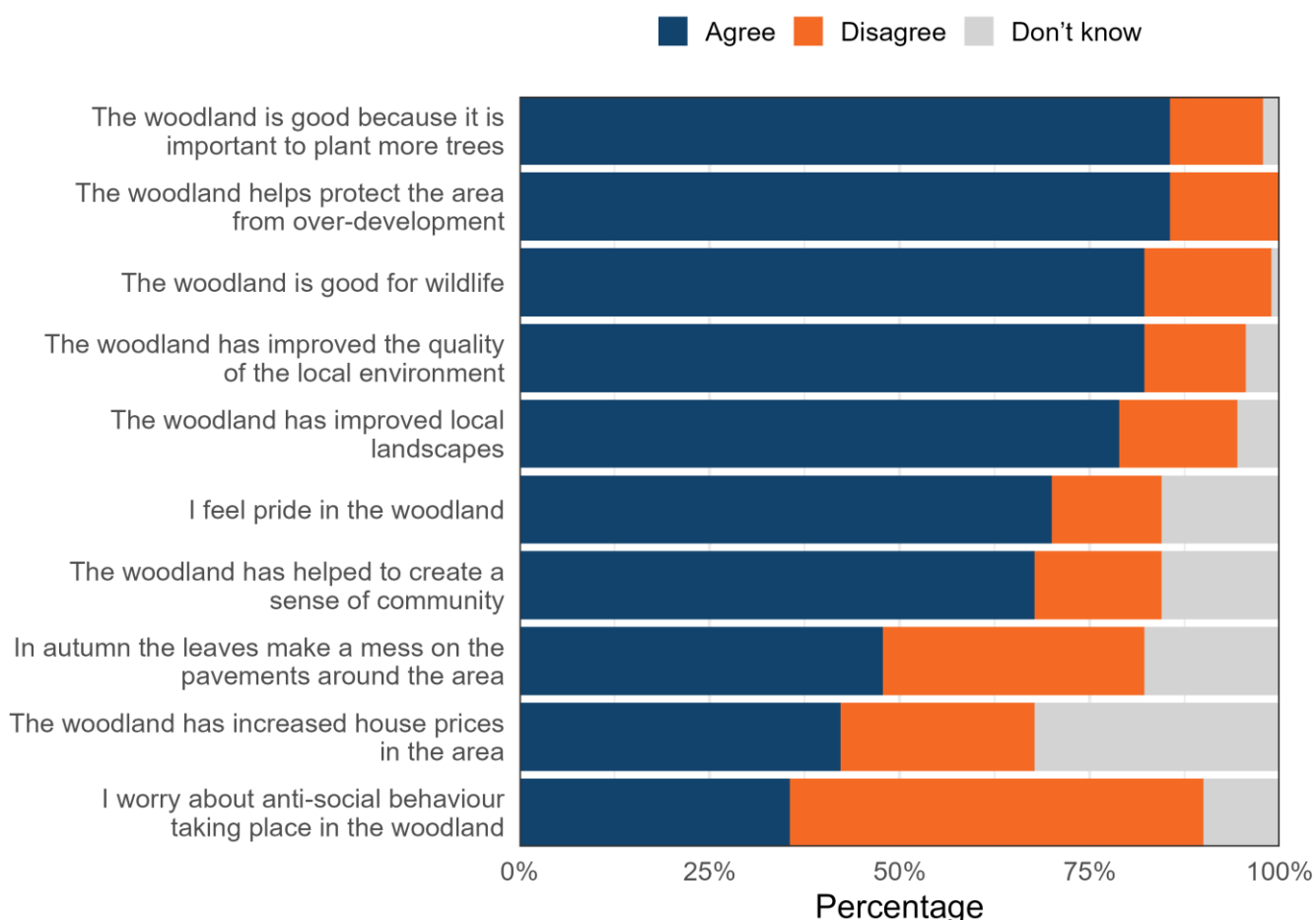

Figure 2: Attitudes to new woodland sites - non-visitors. Percentage agreement with each statement. National Forest and Forest of Marston Vale, November 2024.

Respondents who visit the woodlands most frequently are more likely to value new woodlands in general. They were asked for their level of agreement (5-point scale, strongly disagree to strongly agree) with 17 statements (listed in full within the separate Methodology report and appendix 3) about the social and cultural value of new trees planted in their local area – any planting, not just the named woodlands. Each of the 17 statements began with the phrase: "I value young woodland and newly planted trees in my local area because...". The relationship between frequency of visit and strength of agreement was consistent for 13 of the statements, with those who visited the woodlands more frequently being more positive about the value of new planting; this was significant for all bar four statements ("they make me feel creative and inspired"; "they provide places for my community to come together"; "they are important for wildlife"; "they can help me learn more about nature"). Figure 3 shows how strength of agreement varies by how frequently respondents visit the woodland in relation to three of these statements. Overall, for visitors and non, the strongest level of agreement was for the statements "they are important for wildlife" (64% strongly agree) and "they make me notice the changing seasons" (59% strongly agree).
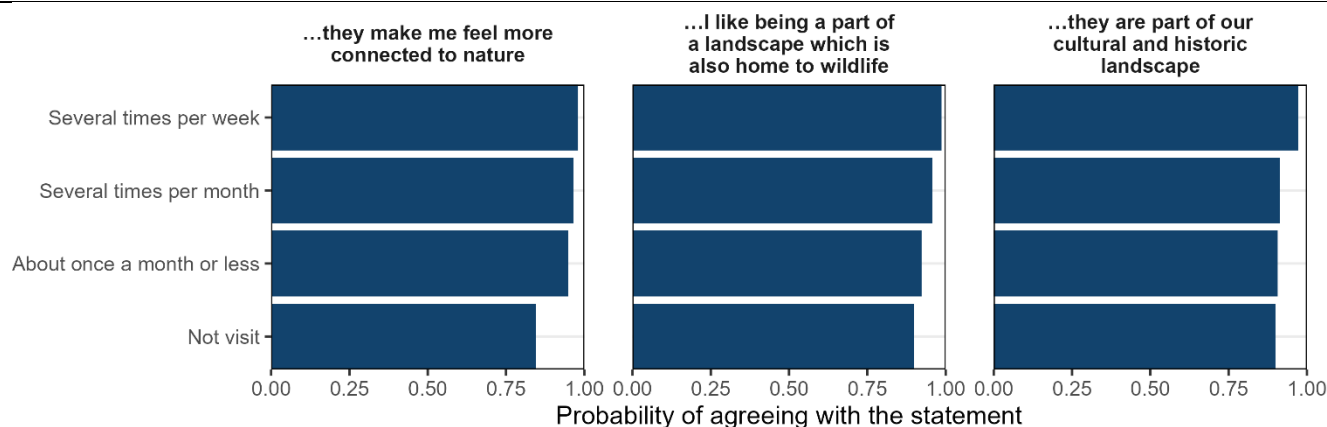
Figure 3: Statistically significant results from the analysis of the statement "I value young woodland and newly planted trees in my local area because...." showing probability of agreeing with each statement (x axis) by frequency of visiting the woodland (y axis). National Forest and Forest of Marston Vale, November 2024.

New woodlands may be more highly valued than mature woodlands. Comparing data collected in relation to the 17 statements between this study (new local trees and woodlands) and data from an all-England study (all new local trees and woodlands), we found that all statements for this study were ranked statistically significantly higher than those in the England survey (all local trees and woodlands). Indicating that new local trees and woodlands may be more highly valued, although more research would be needed to confirm this.

Why do people visit, what do they do and for how long?

The main activities that visitors undertook when they visited the woodlands were dog walking (42%) and walking without a dog (35%). A further 9% went running or jogging as their main activity. Eighty two percent of visitors undertook their main activity about the same amount as before the new trees were planted, while 14% undertook the activity more often after the trees were planted and 4% less often.

Visitors to the site were asked to indicate their **main reason for visiting**. The most frequent response was 'for physical health and exercise' (46%). Ethnicity, employment status, educational attainment, length of time resident in local area, having access to a garden, frequency of visiting the woodland, and average time spent in greenspace in last 12 months were shown to influence the main reason people visit the woodland (all statistically significant). Only age and gender were shown not to influence the main reason for visiting. Results in relation to ethnicity, employment status, length of time resident in local area, access to a garden and frequency of visiting the woodland are shown in Figures 4-8.
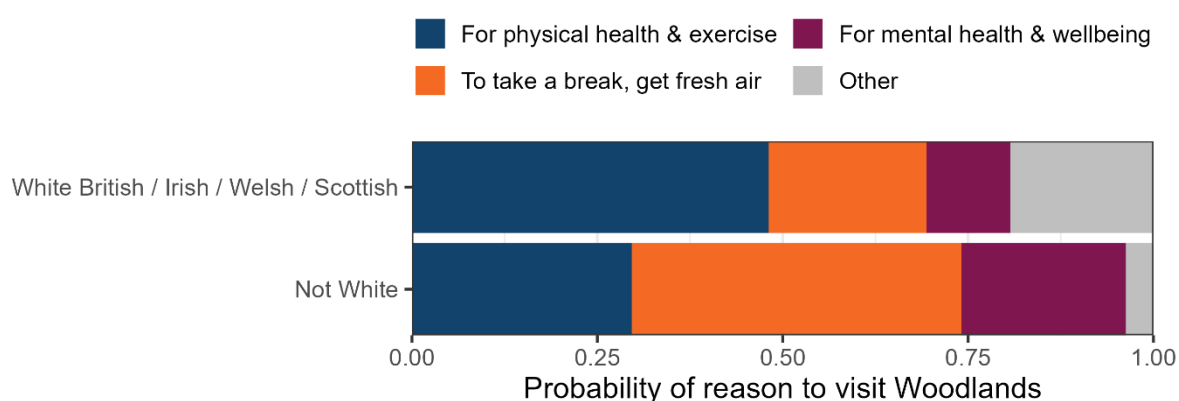
Figure 4: Reason for visiting woodland (y axis) according to ethnicity. The x axis shows the probability of group selecting main reason for visiting. National Forest and Forest of Marston Vale, November 2024.
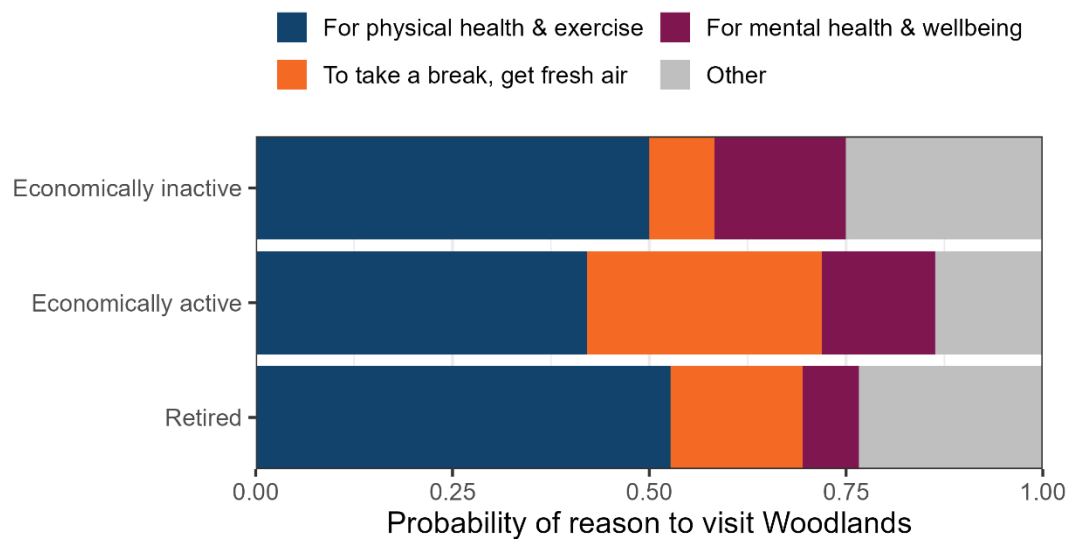
Figure 5: Reason for visiting woodland (y axis) according to employment status. The x axis shows the probability of group selecting main reason for visiting. National Forest and Forest of Marston Vale, November 2024.
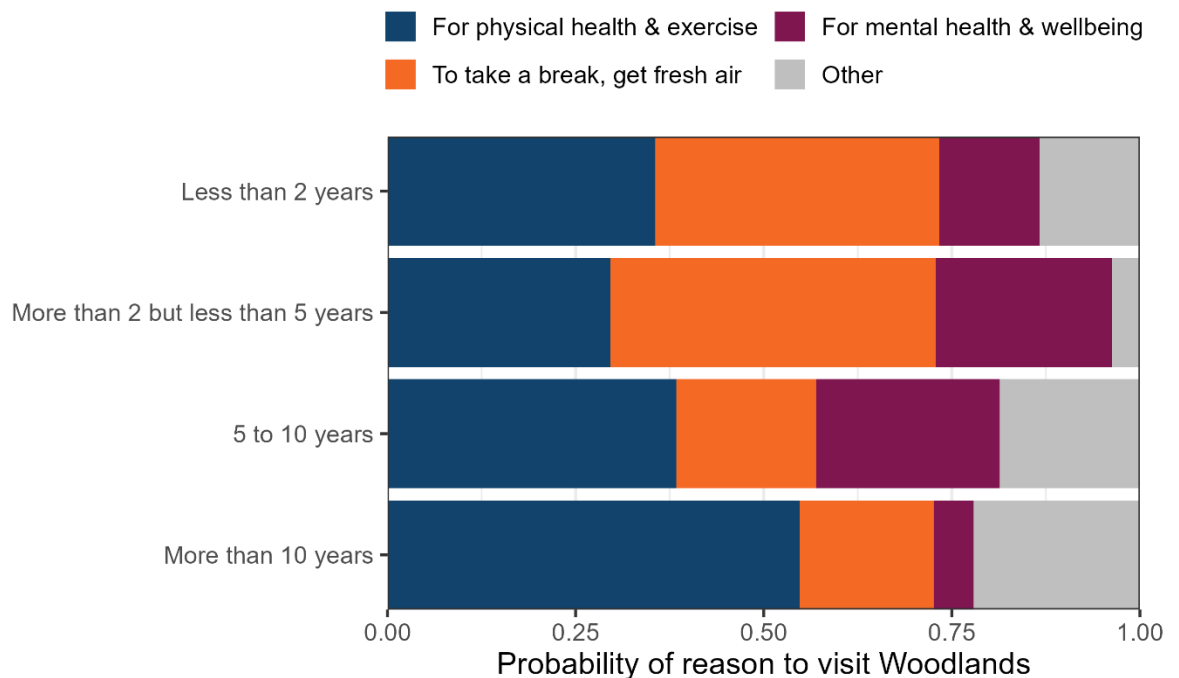
Figure 6: Reason for visiting woodland (y axis) according to length of time resident in local area. The x axis shows the probability of group selecting main reason for visiting. National Forest and Forest of Marston Vale, November 2024.

Figure 7: Reason for visiting woodland (y axis) according to whether they have access to a garden. The x axis shows the probability of group selecting main reason for visiting. National Forest and Forest of Marston Vale, November 2024.
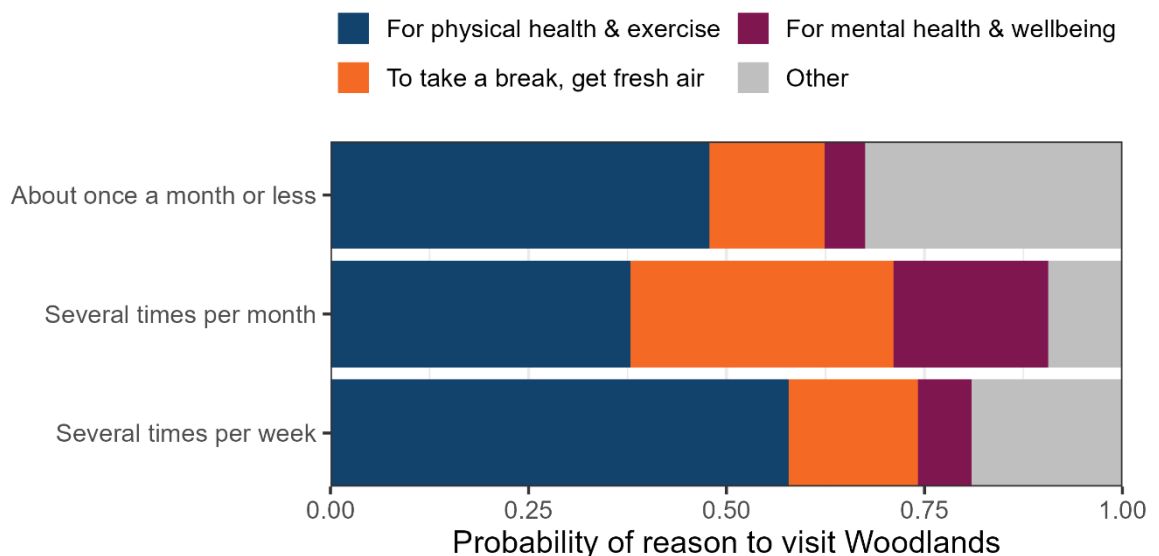
Figure 8: Reason for visiting woodland (y axis) according to frequency of visiting the woodland. The x axis shows the probability of group selecting main reason for visiting. National Forest and Forest of Marston Vale, November 2024.
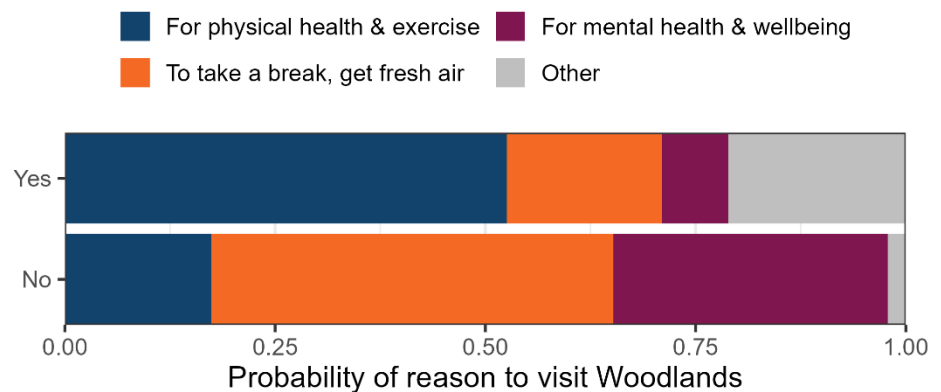
Most visitors stayed at the woodland for between 15 minutes and an hour (64%). A further 31% stayed for between one to two hours. Males, retired people, those who have lived in the local area for more than 10 years and those people with access to a garden were all more likely to stay at the woodland for longer than one hour.

To understand the reasons people don't visit the new woodlands, non-visitors were asked for their reasons for not visiting the named woodland. This was asked as an open-ended question and responses coded to a themed category. The most frequently mentioned reasons were "I'm too busy" and "I have poor mobility".

What benefits have the new woodlands had on local community members?
Results are presented relating to self-reported mental and physical well-being, and responses to questions relating to the respondents' opinions of the social and cultural value of young woodland and newly planted trees in the local area. These were analysed to look for differences according to socio-demographic characteristics and visit frequency (including no visits).

Those visiting the woodlands most frequently experience better mental wellbeing. Respondents reporting highest levels of happiness (scoring 7 or more out of 10) were those who visit the woodland most frequently and those in 35-44 year age category (figure 9). Those who visited the woodland more frequently were more likely to report higher life satisfaction, as were those who had a dog (figure 10). Respondents more likely to believe that life is worthwhile were those who visited the woodland most frequently, 35-44 year-olds, those with a dog and those with access to a garden (figure 11). Respondents with the highest level of reported anxiety were those who never visit the woodland.

Overall, respondents reported moderate to strong feelings of satisfaction with their life, happiness (yesterday) and their life being worthwhile.
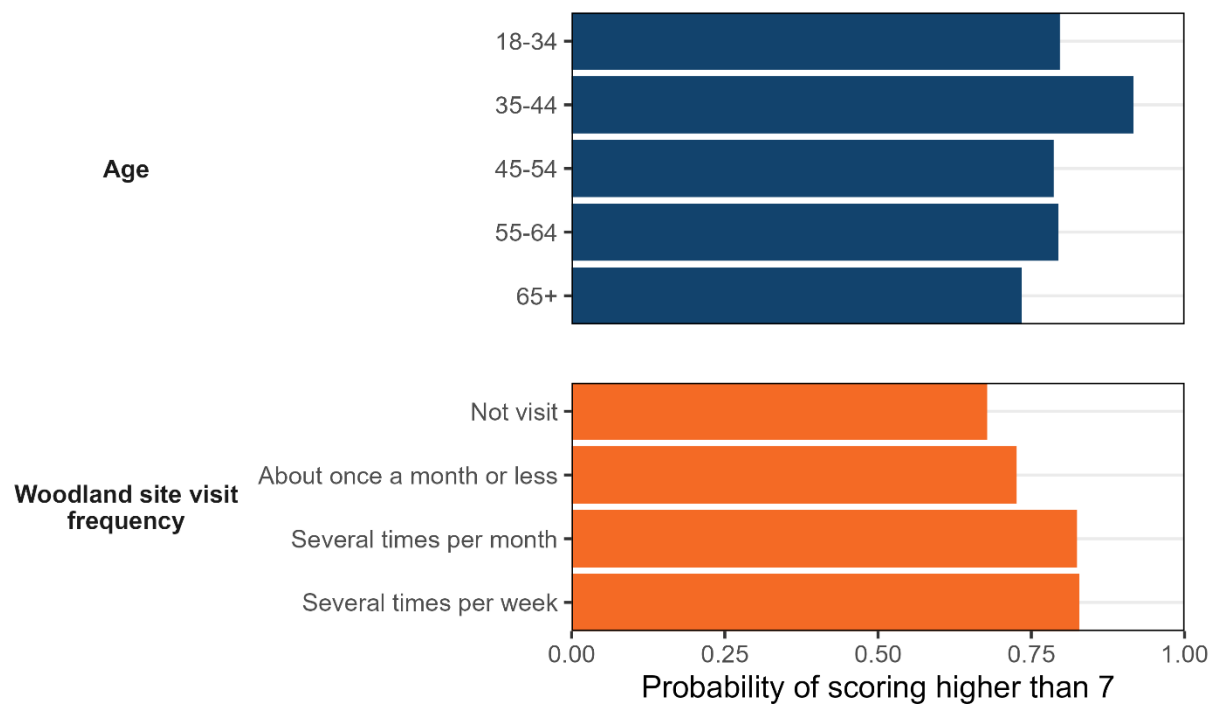
Figure 9: Probability of scoring 7 or more out of 10 for self-reported happiness (x axis) by age group and frequency of woodland visit (y axis) (both age and frequency of visit report significant differences between categories). National Forest and Forest of Marston Vale, November 2024.
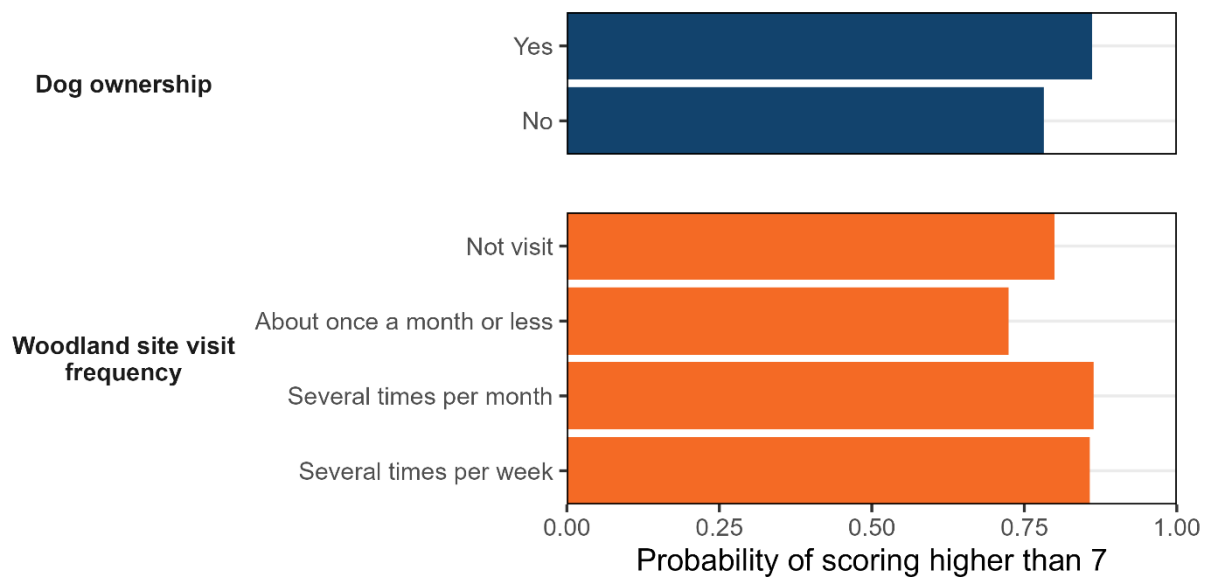

Figure 10: Probability of scoring 7 or more out of 10 for self-reported satisfaction with life (x axis) by whether dog in household and frequency of woodland visit (y axis) (both presence of dog and frequency of visit report significant differences between categories). National Forest and Forest of Marston Vale, November 2024.
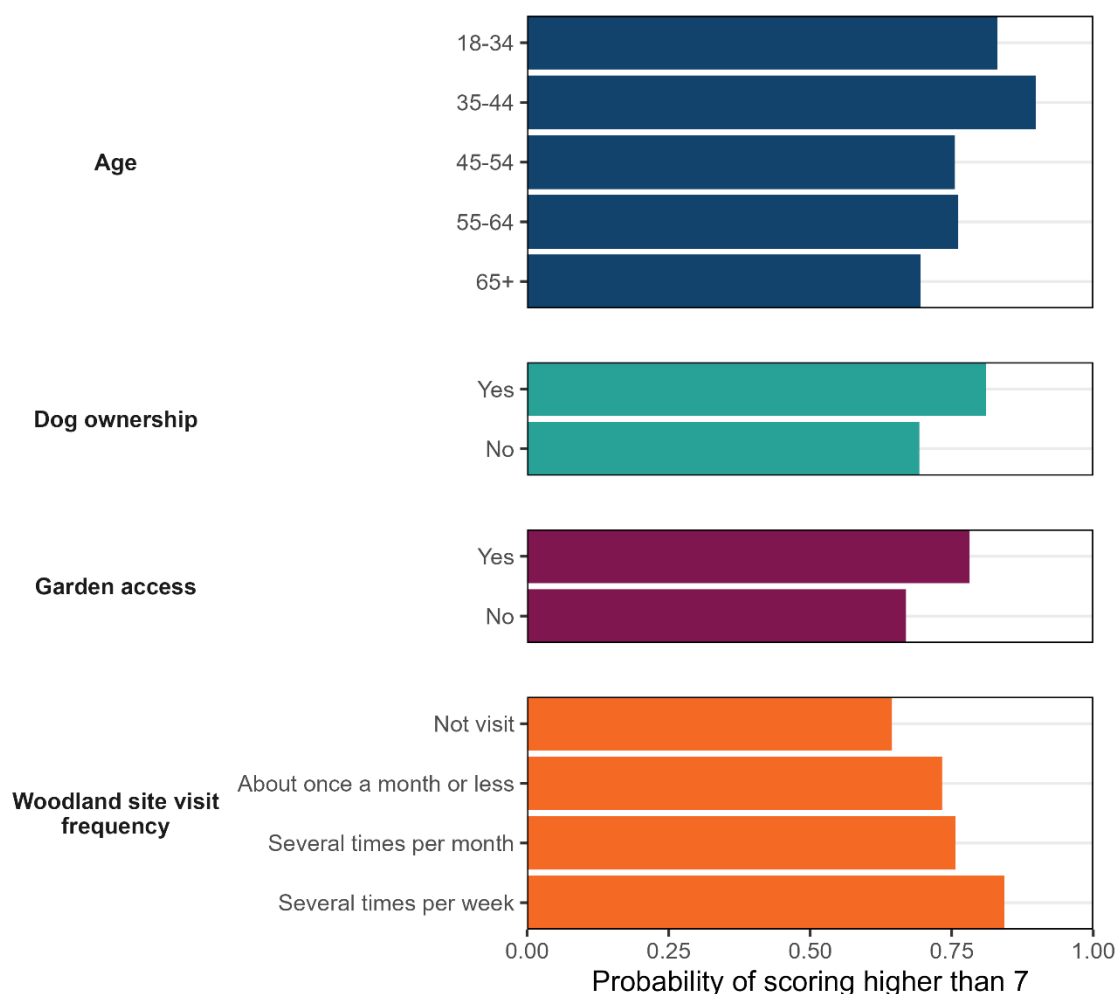
Figure 11: Probability of scoring 7 or more out of 10 for self-reported response to whether life is worthwhile (x axis) by age, whether dog in household, access to garden, and frequency of woodland visit (y axis) (all report significant differences between categories). National Forest and Forest of Marston Vale, November 2024.

There was no correlation between physical health and frequency of visiting the woodlands. Respondents were asked to self-report on their physical health using a five-point scale from 'very bad' to 'very good', and overall 64% reported their health to be 'good'. A further 21% said 'very good' and 14% 'fair'. Results were tested to see if there was a difference in self-reported health between different socio-demographic groups, and between frequency of visiting the woodland or other greenspace generally. The only significant findings were that self-reported health was likely to be worse in the over 65s; retired people; those with no formal qualifications; and those with no access to a garden.

Visitors were asked if they had been involved in a range of activities or events in woodlands or in connection to woodlands (other than just visiting). The activity with the highest level of engagement was litter picking in a woodland (12%). The only other type of activity in which more than 10% of respondents stated involvement was an organised tree planting event (11%). Eight percent of visitors (n=41) and 19% of non-visitors (n=17) stated they had been involved in or consulted about plans for creating, managing or using woodlands in their area. With 8% of non-visitors aware of a consultation or other opportunity to engage with the planning or management for the study site. Fifteen percent of non-visitors said they would have liked to have had the opportunity to be involved. Nineteen percent of non-visitors were aware of organised volunteering or social activities that had happened at the study site.

Qualitative longitudinal results - summary

The following results and discussion are structured using a case biography approach (Thomson, 2007; Butler et al., 2014; Shirani et al., 2015), see more about this in the separate Methodology report. While the quantitative survey demonstrates that people benefit from the new planting sites, the case study approach focuses on exploratory case studies which provide insights into how and why people experience these benefits. The results have been written up as four detailed case biographies (Anne, Richard, Joe, Lindsay) (cf Thomson 2009) (Shirani et al., 2015), which are presented in appendix 10, along with a review of theories and concepts relevant to the findings. Joe's case biography is included in this report, as an example. Accounts from other cases (Rhi and Isabel are referenced in this report) have been drawn upon to demonstrate how the case biographies are situated within the wider dataset. The four cases are also presented as a Storymap here.

In this report, we first present an example of a case biography for illustrative purposes (the full set can be viewed in the separate Methodology report). We then provide summaries of the themes as they relate to each case biography. Finally, we summarise the findings by case in relation to each theme.

Case biography: Joe

Joe grew up on the edge of a large village in Derbyshire and he moved to Leicestershire when he was around six years old. Joe is hard working and financially driven, describing himself as 'cocky' in his early professional years with his career being lined up for him through his father. Joe describes how he felt his life was planned out, but he later rebelled and forged his own pathway building his own packaging business. Joe says that he'd rather do things for others than himself and admits that he struggles to carve out time for activities which are important to him, such as spending time outdoors or with other people. Joe found that getting a dog and taking her for walks enables him to spend more time outside, which he recognises is as good for her as it is for himself. Joe also finds that activities helping others, friends or charities, provide much needed separation from work, securing a better balance and preventing burnout.

Joe didn't previously value his local greenspace, but he has come to appreciate it more as he ages. He does not feel very connected to nature, despite spending a couple of hours outdoors every day when walking his dog, often in Old Parks Farm. He explains that he does not see the beauty in nature which other people might see. However, he feels depressed about the destruction of nature (such as building over natural spaces) but considers himself part of this destruction.

Woodlands are important to Joe because they mask views of civilisation, particularly heavy industry and development. On the newly planted site he visits, Joe describes a strong feeling of leaving development and industry behind and achieving isolation and quiet. Near the entrance to the site, you can still see a large distribution centre and other industry, but as you walk into the site, the human-made noises are drowned out or disappear and the views change to fields and woodland in what, appears to Joe, to be a private and somewhat unmanaged site.

Experiencing change and sensing variety in new woodlands

Joe shares conflicting views on the new woodland. He experiences it as a light and airy place which he enjoys, but he also mentions that he is light sensitive, and too much light can give him a headache. At one point he referred to the site as a "*a field with a load of trees in it*", contrasting it with a woodland. He doesn't think that there is much variety in the landscape on the new planting site in comparison with other natural landscapes: "*you round a corner, it stays the same [...] there is 'grass, trees and light*".

Joe imagines that as the woodland grows, it will start to feel like a darker, more enclosed, quiet and softer woodland, making explicit reference to a nearby, more mature woodland planted in 1999. This site he describes as 'shadowy', 'more traditional' and with a 'closed-off feeling'. He also describes how sunlight penetrates through the trees in established woodlands creating a 'divine light' and how the mixed canopy structure allows for the light and the views to change along one's journey through such woodlands, with different compositions around each corner. Joe feels that this variety helps him feel a sense of connection to established woodlands, which he does not feel for the newly planted site. It is noteworthy that among the accounts by the interviewees, light appears to be the key sensory feature differentiating new woodlands from established woodlands. Joe's account of this is particularly detailed, alluding to the spiritual connection people can feel for different places and how that's linked to a site's characteristics such as light.

Variety is a dominant theme for Joe. He describes how he enjoys a change in stand ages across a woodland, weaving in and out of more mature woodland and open space. He is interested to see how this develops over time in Old Parks Farm. He also speaks about variety in terms of observing woodland changes with the seasons and of the importance of a diversity of tree species, sharing that uniform planting would lack interest. Joe prefers 'natural' looking places and would prefer to see a more 'traditional' mixture with fewer non-native tree species, as these species remind him that the woodland is 'manmade'. Joe perceives unmanaged woodlands to be more natural and to provide a sense of solitude and he thinks the site does not appear to be overly managed.

Joe's management preferences are linked with his desire to spend time in less managed places. For example, he speaks about thinning at length:

> "Thinning: Ah, it's depressing, really, isn't it, whenever you see it? [...] I understand the need for it. Well, I understand our perceived need for it and the perceived benefits and things like that, but yeah, [...] you just destroy a landscape and you destroy a connection that you've had for years, which takes years to develop and then in one fell swoop it's gone without any notice usually because you're just a bystander [...] Yeah, it would reset a connection, wouldn't it? So your connection would be lost. It would be damaged. Not damaged but it would reset and then you would get used to it relatively quickly. The woods is still there, it's still going to be there. It will just have a different feeling, but it changes all the time, doesn't it?"

Most of the other participants felt differently about thinning and tended to share their understanding of the benefits of thinning to the ecology of the site, despite some initial dismay at seeing trees cut down. These participants perceive that thinning provides increased 'variety' and appreciated the intent to mimic natural processes. Richard appreciates how woodland management (specifically thinning) can help create a mixed-age canopy, increase biodiversity, create changes in the woodland over time, and improve the aesthetic appeal of the woodland. This appreciation for management which leads to variety within the woodland was echoed by Anne, Isabel and Rhi who appreciate how it increases the amount of light filtering into the woodland – linking in with their preference for a variety or mosaic of open spaces and woodland and opening up the canopy for other flora and fauna.

While Joe's local new planting site appears largely unmanaged to him, the new trees have been planted in fenced areas which Joe calls 'cages' to protect them from pest damage. These manmade structures go against Joe's desire for a natural looking woodland and to escape from human infrastructure. His focus on and descriptions of the cages in the third interview (on site) was in contrast to previous interviews where he did not mention the cages and referred to the site as 'natural'. Joe notes that he was prompted to discuss the cages when seeing them on the interview walk, but he may not have thought much about them otherwise. When speaking of the cages he referred to the tree planting as 'factory planting', a 'warehouse waiting to be released', a 'caged field', and the private, industrial feel that the cages bring to the experience of the site. Yet, Joe expresses a level of appreciation for the planting having taken place and an understanding for the need for 'efficient' planting practices which he links to the need for efficiency in his own work. Joe comments that some information about the site could help improve his perceptions of the design and management practices used, including information on permitted access, the purposes of the cages, on the species choices and on why some areas have been planted more sparsely than others. While Joe dislikes the cages, he believes they will eventually be removed and looks forward to experiencing the new planting develop and merge into the earlier planting.

Protection from development

Joe feels sad about the increased amount of built development changing his local landscape. He notes that he used to take the local landscape for-granted but values it more now that it is under pressure from development. He has always lacked a sense of belonging in Leicestershire and he feels this is further compromised by the development. Joe is drawn to isolation and achieves this by walking in woodlands where "all you can see is trees and sunshine", with 'civilization' and 'industry' masked by the trees. Seeing development and industry directly conflicts with his desire for isolation. Joe wishes to see the planted areas expand:

> *"Experiencing expansion across the site: I hope it develops. I hope it develops and I hope then it grows, so I hope there's a next bit, a next bit and a next bit and it gets bigger and bigger and bigger because that's nice to see".*

However, he is concerned that the site and its expansion is likely to be negatively impacted by increasing amounts of built development because it occupies a central, urban location. He contrasts this with other local woodland sites, such as Queen Elizabeth Diamond Jubilee woods, which are further from urban centres and so potentially less at risk. Indeed, Joe is aware that a new housing development is due to be built on some of the fields adjacent to the site. He recognises that with the housing development will likely come the installation of more facilities on the site and with it a higher footfall. Joe worries the site will "*lose what it's currently got, which is very rarely do you see anybody*". Similar concerns were referenced by other respondents, who feel that an increase in visitors would impact on the peace and quiet provided by the sites (Rhi and Richard). Richard, for example, prefers woodlands that have a more natural feel, and comments that certain infrastructure, such as cafés, can compromise this sense of naturalness and the ability to 'lose yourself' in the woodland:

> *"A lot more people, hopefully, will mean a lot more people will enjoy it but a lot more people could mean that the wood falls under a lot more stress in terms of new footpaths, new places for people to have a picnic, and all that brings more litter and more ill treatment, by some people, of the wood. That worries me."*

Changes to the woodland sites which Joe visits have a profound impact on his sense of place and ultimately, his sense of belonging. He explains how he has a near-spiritual connection to some woodlands and how this connection is at risk.

> *"If it [the woodland] stays the same and develops [naturally], then if it matures and it stays the same [...] then the light, the sound and things like that, it's bound to connect. It's bound to have more of a connection back to nature and back to, "Christ, is there something better out there?" But if it develops in a more mass-person appeal, then that connection will disappear. Well, it won't disappear. It will be dampened, from what I experience. Yeah."*

While Joe expresses a sense of detachment from his local area and its nature, it appears that rather than being indifferent, Joe is actively struggling with his sense of belonging, which includes his relationship with local nature. Changes to the new woodland site he regularly visits, as well as wider development in the area on familiar fields, put this sense of belonging further at risk. Fears around the prospect of change therefore affect Joe's wider wellbeing rather

than just his experiences of the site. For example, Joe states that: *"Everything I potentially have known is about to change"*, and at one point he reveals that he would be willing to leave the area in the near future and never return.

Sense of stewardship

Despite concerns about human impact on woodlands (above) and considering himself part of the destruction of nature, Joe does not feel a sense of responsibility for protecting the site or the wider environment. He expresses a pessimistic attitude towards his own ability, or that of humans in general, to protect nature - that humans are too "stupid" to protect nature and such activities are "whitewashing" exercises. As such, Joe's relationship with nature takes an extractive form in his mind, commenting that it's 'exploitative' and 'consumerist'. He feels that he 'uses' (exploits) the site to gain personal benefits in terms of mental health. In a related discussion, he reveals that he only cares for the greenspace he uses in his local area and is less concerned about development elsewhere (see above).

Joe expresses a disconnect from local places which he believes stems from his childhood as he struggled to form an attachment to Leicestershire upon moving there as a young boy. He similarly expresses a disconnect from nature which he believes is likely a consequence of work pressures and demands and relates to his struggle to consider, prioritise, and behave in ways that benefit him. Joe also mentions that he struggles with social interactions and to make connections with people. While he recognises that socialising is good for him, he expresses a preference for isolation. It is conceivable that his disconnect with people and nature are somehow linked. For example, it seems possible that it is not straightforward for Joe to engage with people or nature because that requires him to consider what is in his interests, something which does not come naturally. Added to the pressures of work, and a geographically disrupted childhood, this results in difficulties forming bonds to both nature in his surrounding area and the local community.

Key themes – summaries

Experiences of new planting

This was a key theme which aimed to capture the unique experiences around newly planted woodlands. There were two main ways in which participants experienced new planting. First, they tended to experience new woodlands as open, light and energetic places in contrast to darker, older woodlands which provide a sense of grounding and 'envelopment' with their tall canopies. Participants appreciated having a variety of woodlands locally, so they could benefit from both experiences. Secondly, the participants described benefiting from the unique experience of watching a new woodland being planted and grow. They enjoyed noticing changes within the woodlands over weeks, seasons and years. All their senses were used to experience and describe these changes. They highlighted the wellbeing benefits from such variation and observation of change. Participants have built meaningful relationships with trees and woodlands over time. As such, older woodlands tended to be places where people held strong memories from the past and they appeared to be more familiar to the participants. However, the experience of tree planting and other volunteering activities helped participants build meaningful memories in new woodlands and contributed to their wellbeing.

Stewardship of new planting

This theme explored whether participants felt a stewardship for new woodlands as well as any factors which might contribute to or prevent a sense of stewardship. Most participants expressed care for and a desire to protect the new woodlands. Experiencing the trees growing and woodlands otherwise developing and changing (as above) contributed to these feelings. For example, some participants described themselves as 'stewards' or felt the woodlands to be theirs in some way. These feelings were particularly strong if the participants had participated in the planting of the trees or volunteered to undertake other woodland management or engagement activities on the site. Feelings of stewardship appeared to be linked to other factors such as the participants' sense of place and belonging in these woodlands and the values placed on the woodlands by the participants, such as for socialising or for inspiration.

Protection from development

Participants in both case study areas were concerned about the rate of built development in their local area and some expressed concerns over the lack of space for nature to expand locally. Newly planted woodland provided them with some reassurance that there is space for nature now and into the future, thereby conferring some form of protection from 'over-development' of their local area.

New trees offer opportunities for learning and stimulation of curiosity

Participants mentioned different aspects of learning or curiosity in relation to new woodlands. New woodland is distinct from older, established woodland in that it offers the opportunity to observe more rapid change. Noticing the appearance of new bird and plant species is one example of how this observation manifests for visitors. Some participants explicitly linked this mental stimulation and sparking of curiosity to mental health benefits.

Sense of safety

Feelings of safety in woodlands was explored by a few participants, but from different viewpoints. Some participants worried about hurting themselves while visiting or the danger posed by others. There was some indication that the more open nature of the new woodlands can feel safer for some people. One participant expressed that being in woodlands made her feel safe, as part of being able to 'escape' everyday life personal trauma – a different way of thinking about safety.

Finding hope and resilience in new woodlands

Some participants mentioned feelings of hope, positivity and optimism from watching the young trees grow. In particular, engaging in tree planting or other environmental behaviours in relation to the study site, provided participants with a sense of agency – an ability to do something about the state of nature and the climate.

Although not a key finding – we include some of the qualitative findings relating to **wildlife** (from the full results in appendix 10) – as the quantitative research indicates that local community members value new woodland for the benefits to wildlife, in particular. New planting is seen to provide space with 'less interference', which Richard believes benefits wildlife, as does Lindsay, unless management of the woodlands 'forces it to start over again'. Noticing wildlife forms the basis for many participant's curiosity, observation and learning experiences in the woodlands, including observing new species arriving onto a site. Caring for wildlife in the woodlands is also important to some participant's feelings of stewardship. For example, Richard feels it is important to be helping wildlife to regenerate in his local woodland.

Table 1. Summaries of themes explored in the case biographies, by focal case

	Anne	Richard	Joe	Lindsay
Experiencing change and sensing variety in woodlands	Anne enjoys experiencing how the woodland develops and grows over time and pays close attention to the changing seasons and biodiversity. She welcomes change and notes how it does not look like a 'plantation' anymore but is also sad about losing views as the trees grow. She experiences the new woodland as bright and uplifting while she has more memories in the mature woodland.	Richard feels fortunate to experience the growth of trees which he has planted. He appreciates experiencing variety, particularly in terms of biodiversity. He links the opportunity to experience change and variety with mental wellbeing benefits. However, Richard also feels upset by observing trees get diseased by ash dieback.	Joe provides a detailed account of the differences in terms of light and variety in new versus old woodlands, and notes how, in established woodlands, there are more diverse views and the light is more 'divine'. He feels less of a sense of connection to the new woodland due to this lack of variety. He also expresses a preference for natural looking woodlands and likes the 'unmanaged' feel of the new site, but dislikes the idea of thinning as it would 'reset' his connection to the site.	Lindsay describes the newly planted woodland as open and energetic. She also notes the fast pace of change in the woodland and being able to see growth even within a month. She describes the initial planting as sterile and the rows as regimented, but feels the woodland will look more natural as it grows. Lindsay prefers such a natural look and limited management, or 'interference'. The new woodland is an asset to Lindsay's mental health, for preventing depression and continuing to heal.
Stewardship of new planting	Feels a strong sense of protection and also ownership over the site. Spends time looking out for the woodland. Feelings of stewardship driven by a strong sense	Richard sees himself as a steward of the local woodland and feels protective of it. The experience of having children	Joe does not have a sense of responsibility for the site which can be linked to his lacking sense of place. He also	Lindsay has a strong sense of respect and stewardship towards nature and she believes that showing respect

	of place and belonging, enabled by the hyper-locality of the planted site to her. Expresses a reciprocal relationship with the woodland.	and grandchildren has heightened his desire to protect such spaces for future generations to benefit from. He acknowledges the role of the woodland for the wider community, also contributing to this sense of importance. However, he also worries that if it is used by too many people, it will likely change in a way which he considers negative.	describes having a utilitarian relationship with the woodland site, using it for his own wellbeing benefits. He does not feel humans have the ability to protect nature.	for nature is a way of deepening one's connection to it. She wishes that human impacts on nature were limited and feels attacks on nature very personally. Lindsay appreciates fencing on the site which she feels will limit damage by humans.
Protection from development		Richard worries about over-development of the built environment and the local authority's inability to reject planning applications on environmental grounds. He therefore values the newly planted sites as he feels the planting offers a level of protection from development. However, he expresses some conflicting interests between tree planting and using land for farming.	Joe feels sad about local built development changing his local landscape. He is also concerned about increased footfall resulting from housing development near the site and how this will affect the isolated feel of the site. Joe has a fraught sense of belonging where he lives, and he feels such changes further threaten this belonging.	
Opportunities for learning	Anne's curiosity is sparked by the woodland, and she gains mental stimulation from learning about the woodland by observing change and variety. Anne appreciates learning from others and teaching people about nature. Anne considers teaching a way of building a sense of stewardship.			
Sense of safety				For Lindsay, nature has provided an escape from her

				life's trauma, and she feels safe in woodlands for this reason. She also expresses feelings of safety to heal and return to her 'authentic self' in nature, away from the expectations of society.
Finding hope and resilience in new woodlands				Lindsay expressed finding a sense of hope in the new woodland, using terms such as 'new beginnings' and 'sense of potential'. She considers this a way for people to pay back to nature after our destruction of it. She also highlights how planting helps local communities reconnect with nature.

Discussion

RQ1 What do local community members who have visited the site think about the intervention (new planting and expansion of woodland*) and how it has come about?

RQ2 What do local community members who have not visited the site (but are aware of the intervention) think about it and how it has come about?

We have combined discussion of RQ1 and RQ2 for narrative purposes, as the visitors and non-visitors exhibited similar findings, and to aid comparison. Non-visitors shared many of the same positive attitudes about the new planting as visitors, suggesting that visiting new planting is not a pre-requisite to having opinions about or valuing these sites. External viewing of new planting sites, vicarious experience through others and even just knowing about the sites can lead to formation of attitudes about them and valuing them.

Overwhelmingly, the studied communities believe local tree planting and the creation of new woodlands is a good thing, whether they visit the sites or not. The majority of visitors like the design of their local new woodlands. Our qualitative findings indicate that new woodland, perhaps more than established woodland, provides people with feelings of hope, positivity and optimism for the future.

We found that new woodlands can be associated with pride in place, even if you don't visit them. More established woodlands (20 years+) can be strongly associated with memory formation built over time, which can build sense of place. However, new planting can spark curiosity and provide people with a strong motivation for environmental action, both of which can help build sense of place. Taking action to benefit the new woodlands can also build sense of personal responsibility or 'stewardship' towards the trees and the site more generally, as can improved sense of belonging associated with the new woodlands. Most visitors to new woodlands feel a sense of personal responsibility towards them, yet a smaller proportion have been involved in on-site activities or other stewardship behaviours, which indicates that other attributes, such as opportunities to develop relationships with growing trees and observing change may also contribute to building a sense of stewardship for visitors.

Many respondents, visitor and non-visitor, believe that the woodland sites help create a sense of community. Referring to the qualitative findings, we see that this is a nuanced picture, with some participants valuing opportunities to develop

new community links and others wishing for isolation and escape from people. Despite an apparent tension between these values, the same person can value both. Relating to attributes of new woodland specifically, opportunities to engage with the new woodland creation and management can also create a sense of community and shared purpose.

From the qualitative data, we identified that some participants believed new woodland confers a degree of protection from 'over-development' of their local area, providing reassurance that investment in new planting confers some protection from built development, where it is felt to be encroaching on greenspace. This was confirmed in the survey, with the majority of visitors and non-visitor respondents agreeing.

The more frequently people visit the woodlands the more they value them in a range of different ways. With non-visitors and less frequent visitors being more concerned than frequent visitors about anti-social behaviour in the woodland and leaves making a mess. In particular, local community members (visitors and non) value the benefits to wildlife from new woodlands. With non-visitors and less frequent visitors being more concerned than frequent visitors about anti-social behaviour in the woodland and leaves making a mess on pavements. Local community members (visitors and non) particularly value the benefits to wildlife from new woodlands. Reference to the qualitative results helps us to unpick these values in relation to new woodland specifically. Our qualitative research participants valued observing new species arriving onto a site and that the new woodland provided space for nature to expand and species to disperse.

Survey respondents also particularly valued the act of planting more trees and the perceived improvement to local landscapes. Given that both study locations are in post-industrial areas, it may be that this latter finding is particular to such landscapes and local communities in areas with a different landscape history may not value this as strongly.

RQ3 What impacts has the intervention had on local community members who visit/engage with the site?

RQ4 What impacts, if any, has the intervention had on local community members who have not visited (but are aware of the intervention)?

It makes sense to discuss RQ3 and RQ4 together as, for the survey analysis, we utilised comparison between visitors and non-visitors to help us understand the impacts resulting from exposure to the sites. We also report here on impacts for visitors which didn't require a comparison. We found that new woodland can provide unique experiences and opportunities for visitors to benefit from exposure to them.

People who visit their local new woodlands more frequently have better mental wellbeing. This included reported happiness, life satisfaction and believing their life is worthwhile. They also experienced less anxiety. These are correlational relationships, as with an observational study such as this one it is difficult to assign cause and effect. However, our finding strongly indicates that there is a positive impact from increased exposure to these sites and we can consider the qualitative research findings to propose reasons for this. Participants expressed that there are unique sensory experiences and learning opportunities afforded by new woodlands, providing cognitive benefit and some restoration effects. They also pointed to cognitive benefit from the ability to observe (positive) change in newly planted woodlands, as the rate of change is faster than for more established woodlands. Some specific changes referenced included the maturation of habitats or successional change and new species moving into a woodland. Participants also highlighted the wellbeing benefits afforded through opportunities to develop relationships or connections with growing trees in general and with specific trees. Marking changes in the trees and woodlands in parallel with participant's life history can enhance these connections. New woodlands can also be experienced as energy-boosting and uplifting, in comparison to more mature woodlands.

If we consider who within the community experiences these exposure benefits, we find that non-visitors tended to be newer to the area, non-White and with no garden. This indicates that anything site designers and managers can do to encourage these groups to visit could improve the mental wellbeing of the community overall, as well as ensure diversity of visitors. If we assume that longer visit exposure also contributes to mental wellbeing, then male visitors, retired visitors and those who have lived in the area for longest are more likely to accrue these benefits. Suggesting that activities and site design which encourage female visitors, younger visitors and new residents to spend more time on site per visit could lead to improved community wellbeing.

There is some indication that planting trees on a greenspace site will encourage people to undertake regular outdoor activities more often in that space. However, it should be considered that improved access infrastructure in parallel to the new planting may have influenced this finding.

More people than expected had engaged with activities or events on the study sites, including pro-environmental behaviours such as litter picking. It would be interesting to explore whether the newness of the woodlands and the

related, unique attributes we have uncovered through this research encourage more engagement with activities and events and pro-environmental behaviours.

RQ5 How do we best capture the above change in attitudes, motivations, actions, barriers and benefits linked to woodland creation and expansion for diverse communities over time?

We have developed a methodology for mixed methods longitudinal research as a way of exploring people's relationships with their local new woodlands and how these change over time. We believe this methodology has utility for any research question which considers community and individual benefits from, attitudes to and engagement with their local natural environment over time. In addition, we have tested an intensive approach to qualitative longitudinal research and illustrated the additional insights which can be achieved. Please see the separate Methodology report for a full discussion of the learning in response to RQ5.

RQ6 What lessons can we take from the above to inform such interventions to help them improve provision of benefits and to maximise access/engagement with such sites (where this is an aim) and minimise negative impacts (on site and visitor)?

- People enjoy variety in woodland, so site designers and managers should maximise opportunities for visitors to notice this variety, especially where this enables them the opportunity for different sensory experiences. In addition, young woodlands can provide more opportunity for visitors to notice variety through change (spatially and temporally) and this can be maximised through design and management.

- Many participants expressed an appreciation for a 'natural look and feel' but perceptions of naturalness vary. By considering these different perceptions of 'naturalness' and testing them out with visitors and potential visitors, sites can cater for different natural aesthetics.

- People may react strongly to management which disrupts their connection to a woodland, especially woodland they have seen grow from new planting. By informing the public about why particular management choices have been made, for example, selection of new tree species (use of non-natives), planting approach (e.g. rows or dense compartments) and thinning, site managers can help to avoid adverse reactions.

- This research highlights the variety of motivations people have for visiting new woodlands and that different people want different things from places (e.g. isolation vs facilities). Explicit consideration of the range of these motivations and preferences can help ensure a diversity of visitors.

- Engaging people in designing and creating woodlands, through volunteering and outreach, can support protective behaviours and how much the woodland is valued.

- Many people care about providing space for wildlife, emphasizing such provision in site design and in communication by site managers will improve how much the community values the site.

- Non-visitors will likely have an opinion about woodland sites too and should be consulted about sites where possible.

- We found that newer arrivals to an area are more concerned about negative attributes (dog poo, darkness, leaves leaving a mess) and improved familiarity with a site appears to reduce these concerns. Anything site managers can do to encourage more visitors to use a site will therefore improve overall community perceptions.

- Design open spaces into woodlands to improve perceptions of safety. Female visitors express stronger fears around anti-social behaviour on sites compared to males. Non-visitors were more concerned about anti-social behaviour on site than visitors, so it may be that events to introduce people to the sites, tailored to non-visitors, may lead to decreased community concern as site familiarity increases.

Recommendations for further research

- Continuation of the study over a longer time-period, to better understand change in local communities over time (benefits, attitudes, behaviours), alongside the transformation of local treescapes over time.
    - This could include better understanding the role of familiarity in how people experience and value these spaces
- After identifying some unique benefits relating to new woodlands, the next step could be a comparative study to test these findings against those conferred by more established woodlands.
- Reframe the study to consider local community benefits from new planting in the context of the changing local community treescape (rather than a focus on the new planting itself) – this could support a comparative analysis.
- Research to understand the different types of visitors over time – for example, those who are 'early adopters' of sites compared to those who visit once the site has become more established.

- There was some indication of difference in perceptions of safety perceptions between newer vs older woodlands, further research could look to explore this.
- There was some indication that people hold stronger social and cultural values in relation to young woodland and newly planted trees in their local area compared to local trees, woods and forests in general, but this needs additional research to confirm and understand this.
- Further methodological research would help researchers to better capture change over time, for example, through trialling methods which following a community over time in relation to their local treescape (also see above). Further use of creative and innovative methods, such as diaries and participatory mapping, could help unpick changes and processes of change.
- As with all research, it is harder to engage those with less interest in a topic. In this case, non-visitors were less likely to be interested in the topic and therefore less likely to want to respond to the surveys. For future research we need to understand how to better engage non visitors (hard to reach) – it may be that incentives are needed.
- To provide a better understanding of 'gateways' for non-visitors to become visitors and whether increased familiarity with a site affects associated benefits (e.g. wellbeing) and disbenefits (e.g. perceptions of risk).
- Include more commercial plantations (especially coniferous) within future research as the qualitative research indicated that people had strong and different reactions to them. This could also include short-rotation forestry sites.
- The qualitative research findings suggest that not all visitors to woodland sites think about their future management. It would be valuable to explore potential reactions to different management scenarios and so pre-empt any tensions and learn how best to manage visitor reaction (e.g. through communication).

Conclusion

It is often assumed that new woodlands will provide the same suite of social benefits as mature woodlands. This study addressed the lack of evidence around the social benefits of new woodlands. Through use of an innovative approach to mixed methods research, which included longitudinal approaches, the research has demonstrated that new woodlands provide additional, unique benefits to visitors and that local communities of visitors and non-visitors value them. New woodlands are experienced differently to more established woodland, including through different sensory stimulation. The experience of observing newly planted woodlands grow and change over time provides numerous cognitive benefits such as mental stimulation and curiosity. While mature woodlands are associated with therapeutic values and place-related memories, new woodlands can be seen as uplifting and energy-boosting. They also provide an opportunity for communities to participate in planting, providing an opportunity to take action on environmental concerns, and helping to build a deeper sense of kinship to these places as people experience growing alongside their planted trees.

Appendices

Appendix 1 Copy of qualitative participant information and consent form text
Appendix 2 Survey questionnaire Wave 1
Appendix 3 Survey questionnaire Wave 2
Appendix 4 Qualitative interview guide Wave 1
Appendix 5 Qualitative interview guide Wave 2
Appendix 6 Qualitative interview guide Wave 3
Appendix 7 Qualitative analysis code book
Appendix 8 Results from quantitative research Wave 1 (pilot)
Appendix 9 Results from quantitative research Wave 2
Appendix 10 Case biography and thematic report for qualitative research
Appendix 11 Debrief letter text for qualitative research participants

References to published material

9. This section should be used to record links (hypertext links where possible) or references to other published material generated by, or relating to this project.

Other material generated by this project

Project website: [Mapping the Social Benefits of Woodland Creation and Expansion - Forest Research](#)

International Association People-Environment Studies (IAPS) Conference 2024 presentation slides: [IAPS-24-slides-TWF-16-George-Murrell-accessible.pptx](#)

Methodological Report: to be published, will be available on project website

StoryMap: [How do people experience creation of new, local woodlands?](#)

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Mapping the social benefits of woodland creation - QL Consent Form

1. Project description and your consent

Thank you for agreeing to participate in this research project. Your participation will help inform our research on the impacts of new tree planting for communities and how these impacts may change over time. Please fill out this short consent form prior to the first interview.

Below is a brief explanation of the project and some consent statements. Please read them and tick all relevant boxes. If you have any questions about the project or how we are using your information please contact the lead researcher, Dr Beth Brockett at Forest Research by email: beth.brockett@forestresearch.gov.uk or by phone on 07435 609192

Who we are and the aims of our project
We are SERG, the [Society and Environment Research Group](#) based within Forest Research. We are working on a project funded by Defra's Nature for Climate Fund. We are keen to understand your perspectives, knowledge and experience through conducting research interviews.

The aim of this project is to understand the impact new tree plantings have on local communities and how these impacts may change over time. The England Tree Planting Programme (ETPP) contributes to the UK Government's commitment to increase tree planting to 30,000 hectares per year by 2025 across England. The ETPP looks set to dramatically change the rate and type of woodland creation and expansion in the coming years. This represents a unique opportunity to design and launch a new generation of research on the establishment and growth of trees in the English landscape and how they benefit people (or not). It is important to understand how these benefits vary by different groups of people across different parts of England. You can read more about the project [here](#).

Your participation will involve three 'waves' of interviews between now and autumn 2024. Each wave will last between 60 and 90 minutes. The first interview will be hosted online (or potentially via telephone), where we will ask you questions which explore your life history / background / experiences and your engagement with trees and green spaces. The second interview will be a walking interview. This will involve walking (or other way of moving) through your local tree planting sites, discussing your experiences of and thoughts about the new planting along the route. This interview will utilise geo-tracing technology to map the walk, allowing us to highlight specific points of interest. The structure of the final (third) interview is to be confirmed, but will not involve any non-local travel.

As this research is part of a pilot 'proof-of-concept' project, we may ask you at a later

date if you would be interested in participating in future waves of the research. You are under no obligation to agree and can ask to be removed from our contact database.

Your information
The information collected will be used to produce written reports and publications, and these may be shared with partner organisations or placed in the public domain. Your data will be anonymised, meaning anything you say will not be attributed to you in reporting. As far as is possible, we will check with you that our interpretation of your data contribution is correct.

The raw data, which contains your personal information (e.g. name, contact details), will only be viewed by the Forest Research project team. The data you contribute to the project will be securely stored separately from your personal data and only the Forest Research project team will have access to the key which links your personal information and your data contribution.

Further details
The Social and Economic Research Group's (SERG) Code of Ethics can be found here
The Forestry Commission's Personal Information Charter can be found here
The Forestry Commission is registered as a data controller under the Data Protection Act (DPA) 2018 (Registration No: Z6542658). The Forestry Commission's Data Protection Officer can be contacted at informationrights@forestrycommission.gov.uk.
You have a right to lodge a complaint with the supervisory authority the Information Commissioner's Office (www.ico.org.uk).

1. Do you wish to take part as an individual or as a couple or other family group? Each participant needs to complete a separate consent form.

☐ Individual

☐ Couple

☐ Other (please specify):

Please specify the name(s) of the person or people you would like to participate with (they will also need to complete a separate consent form).

2. I understand that my participation in the interviews is voluntary, that I do not have to answer any/all the questions, and that I can stop the interviews and/or my participation in the research project at any stage without having to give a reason.

☐ Yes

☐ No

3. I understand that I can withdraw my consent from an interview and my data from that interview will not be used in the final outputs of the project, if I inform the research team or project manager within 7 days of the relevant interview taking place (after this time it may not be possible to separate your anonymised data from that of the other participants).

☐ Yes

☐ No

4. I consent to my interviews being audio and video-recorded, so that the researcher has an accurate record of what was said in my own words and that the recordings will be destroyed by 30th April 2025 (or before if the participant withdraws from the research).

☐ Yes

☐ No

5. I understand that my attributed data will be shared within the project research team for analysis and reporting purposes, but that only anonymised data will be shared outside of this team.

☐ Yes

☐ No

6. I understand that the data collected will contribute to written reports and publications, and these may be shared with partner organisations or placed in the public domain and that all contributions will be anonymised.

☐ Yes

☐ No

7. I understand that the information collected will be treated, stored and analysed in line with the requirements of the Data Protection Act (2018) and Forest Research's Code of Ethics.

☐ Yes

☐ No

8. By entering my name below, I show my consent to participate in this study. *Please do not write your name if you answered no to any of the questions above.*

☐

9. Please provide your email address and phone number so that the team can contact you.

☐

10. What is your preferred mode of contact?

☐ Phone

☐ Email

11. Are you over the age of 18?

☐ Yes

☐ No

2. Further information

We would now like to collect some information from you, to help us understand who is interested in taking part in this research.

12. Please tick all the Marston Vale Community Forest sites that you visit regularly (at least once per month).

- ☐ Waypost Wood (Cranfield)
- ☐ Rectory Wood (also known as The Thrift and Marston Thrift, Cranfield)
- ☐ Wood End Thrift (near Cranfield)
- ☐ Shocott Spring (also known as The Springs, near Shortstown and Cotton End)
- ☐ Wilstead Community Woodland (between Wilstead and Wixams)
- ☐ Buttons Ramsey (between Kempston and Wootton)
- ☐ The Kill (between Kempston and Wootton)
- ☐ Wiles Wood (between Kempston and Wootton)
- ☐ Ridgeway Wood (between Kempston and Wootton)
- ☐ Green End Wood (between Kempston and Wootton)

13. Approximately how close do you live to the woodland sites you visit? You can answer based on walking times, cycling times, driving times or distance.

14. Do you regularly exercise a dog or dogs?

- ☐ Yes
- ☐ No

15. How long have you lived at your current address?

- [ ] Less than one year

- [ ] At least a year

16. Which age bracket do you fall into?

- [ ] 18-24

- [ ] 25-34

- [ ] 35-44

- [ ] 45-54

- [ ] 55-64

- [ ] 65+

17. What gender do you identify with?

- [ ] Male

- [ ] Female

- [ ] Non-binary

- [ ] Alternative identity

- [ ] Prefer not to say

18. Which of the following best describes your ethnic group?

- [ ] White - UK (British, Scottish, Northern Irish, Welsh, European or non-European)

- [ ] Mixed or multiple ethnic groups (e.g. White and Black Caribbean, White and Black African, White and Asian, Any other mixed or multiple ethnic background)

- [ ] Asian or Asian British (e.g. Indian, Pakistani, Bangladeshi, Chinese, Other Asian background)

- [ ] Black or Black British - (e.g. Black/African/Caribbean/Black British etc.)

- [ ] Other Ethnic Group or background - (Arab, other)

- [ ] Prefer not to say

19. Which of the following best describes your employment status at the present time?

- [ ] In full-time employment (31+ hours per week)

☐ In part-time employment (Up to 30 hours per week)

☐ Self-employed

☐ Unemployed – less than 12 months

☐ Unemployed (long term) – more than 12 months

☐ Not working – retired

☐ Not working – looking after house/children/other caring responsibilities

☐ Not working – long term sick or disabled

☐ Student – in full-time education

☐ Student – in part-time education

☐ Prefer not to say

20. Do you have any physical or mental health conditions or illnesses lasting or expected to last for 12 months or more?

☐ Yes

☐ No

☐ Prefer not to say

21. Do you require any adjustments or additional support in order to be able to take part in the online or in person interviews?

<u>Questionnaire: One Poll : Sence Valley</u>

Client name:	One Poll
Project name:	Sence Valley
Job number:	9657
Methodology:	CAPI
Version	5

Notes on this document

- Instructions in CAPS are for computer programming
- Instructions in *italics* are for interviewers
- **Bold** or <u>underlined</u> words are for emphasis within a question
- Different question types have different numbers:
    - Screener questions are labelled S01, S02, S03 etc.
    - Main survey questions are labelled Q01, Q02, Q03 etc.
    - Further demographic / classification questions are labelled C01, C02, C03 etc.
    - Number codes are included on each question for data processing purposes

Questionnaire quality checklist

Please use this list to check your script before it is sent to data for set up. Speak to your PM if you are unsure about any of these checks.

	Are quotas or sampling requirements clearly specified?	
Labelling	Is the script labelled with the client name, job, project code and version?	
	Do all questions have a unique number?	
	Are all questions numbered consistently with proper conventions for screener (S0X) and classification (C0X) questions?	
	Have all information pages been entered correctly as 'INFO1', 'INFO2'…	
	Have all notes to data (which aren't questions) been entered onto one line starting with 'DP NOTE:'?	
	Is each question to one of the specified question types? (See 'labelling_questionnaire.xls' in your project file if you aren't sure).	
	Have all grid questions been entered into separate tables with the grid label (column) first then a separate table for grid item (row)?	
Routing, ordering	Does each question have a base description which begins 'Base:'?	
	Are routing instructions easy to understand, do they reference the correct questions earlier in the survey?	
	Are exclusive and fixed codes identified where necessary?	
	Are answer lists ordered or randomized appropriately?	
Language	Is the phrasing of each question complete, simple and easily read on screen and aloud?	
	Is the phrasing of each question appropriate for its delivery mode (self-completion or interviewer led)?	
	Do the answer codes of closed questions relate directly to the question?	
NR	Have options for 'other, don't know etc.' been deployed appropriately?	
	Do all sensitive or personal questions include 'Prefer not to say'?	
Code labels	Are answer options coded correctly (Unique, sequential order 1~79)	
	Are all DK/PNTS options coded correctly? (80~99) • Other (80 - 82) • Don't know (85) • Prefer not to say / refused (86) • None of the above / not applicable (87) • Can't remember (88) • Not stated / not answered (89)	
Quality	Does this survey require any of the following? Include if appropriate • Contact collection for further research • Contact collection for interviewer validation • Attention or data quality check questions	
	Have you proof-read the questionnaire for spelling and grammatical errors?	

Please confirm that you have checked this script against these criteria:

Initials		Date	

Base: All respondents

qnTEST – Please indicate whether this is a test interview

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Live interview		
2	Test		

Introduction

I am working for DJS Research Ltd, an independent research consultancy working on behalf of Forest Research, the research agency of the Forestry Commission. We're exploring how new tree planting in Sence Valley (/National Forest) affects nearby communities. This project, funded by Defra, will inform policymakers and other decision-makers about how the benefits from local woodland management can be maximised for local communities.

This interview will take approximately 15 minutes depending on your answers given.

DJS Research Ltd adheres to the Market Research Society Code of Conduct. If you want to verify that we are a bona fide agency, I can give you the Freephone number of the Market Research Society to ring. GIVE NUMBER IF REQUIRED (+44 (0) 800 975 9596).

SCREENING QUESTIONS

Base: All respondents

S01.

Are you happy to take part in this research?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE
2	No		THANK & CLOSE

S02.

Interviewer to complete. Code location of interviews.
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Sence Valley Forest Park		SKIP TO Q1
2	Local area		CONTINUE

Base: All respondents in local area i.e. code "2" at S02.

S03. First of all, I'd like to ask; have you heard of Sence Valley Forest Park?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE
2	No		THANK & CLOSE

MAIN QUESTIONS – SECTION 1

Base: All respondents

Q1. Can you remember when you first became aware of Sence Valley Forest Park?

Please enter approximate year as stated by the respondent.
OPEN RESPONSE

Base: All respondents

SINGLE RESPONSE

Q2. Do you remember new trees being planted at Sence Valley Forest Park?

Code	Answer list	Scripting notes	Routing
1	Yes		ASK Q2a
2	No		SKIP TO Q2b or 3
3	Don't know		SKIP TO Q2b or 3

Base: All who said "yes" at Q2.

Q2a. Do you remember approximately when this was?

Please enter approximate year as stated by the respondent.
OPEN RESPONSE

Base: All respondents

Q2b. Approximately how long in minutes would it take you to walk from your home to Sence Valley Forest Park?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	5 minutes or less		
2	6-10 minutes		
3	11-20 minutes		
4	21-29 minutes		
5	30 minutes +		

Base: All respondents

Q3. Do you remember the site before the new trees were planted?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes		ASK Q3a
2	No		SKIP TO Q4
3	Don't know		SKIP TO Q4

Base: All who said "yes" at Q3.

Q3a. Do you prefer the site as it is now, or before the new trees were planted or is there no change in your preference?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	As it is now		CONTINUE
2	Before the new trees were planted		CONTINUE
3	No preference / don't know		CONTINUE

Base: All respondents

Q4. Did you visit the site before the new trees were planted?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE
2	No		CONTINUE
3	Don't know		CONTINUE

Base: All respondents in local area i.e. code "2" at S02.

Q5. Have you visited Sence Valley Forest Park since the new trees were planted?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE
2	No		SKIP TO Q18
3	Don't know		SKIP TO Q18

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q6. When did you first visit, after the new trees were planted?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	1-4 weeks later		
2	1-2 months later		
3	3-6 months later		
4	More than 6 months but less than a year later		
5	1 to 2 years later		
6	More than 2 but less than 5 years later		
7	5 or more years later		

Base: All who said "yes" at Q5 OR all respondents in local area i.e. code "2" at S02.

Q7. When was your most recent visit to this woodland?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	In the last week		
2	In the last 1-4 weeks		
3	In the last 1-2 months		
4	More than 2 but less than 6 months ago		
5	6 to 12 months ago		
6	More than 1 but less than 2 years ago		
7	2 to 5 years ago		
8	More than 5 years ago		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q8. How frequently do you visit this woodland?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Several times per week		
2	Several times per month		
3	About once a month		
4	Less often		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q9. Now that the new trees have been planted, do you visit the site more or less often?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	More often		
2	Less often		
3	About the same frequency as before		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q10. Who do you usually visit Sence Valley forest park with?

MULTIPLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Alone		
2	With partner		
3	Friends		
4	Family		
5	A community group		
6	A pet		
7	Other WRITE IN _____	OPEN RESPONSE	

Base: All respondents in park i.e. code "1" at S02.

Q11a. How do you usually get here?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	On foot		
2	Cycle		
3	Public transport		
4	Private vehicle (as driver or passenger)		
5	Taxi		
6	Wheelchair or mobility scooter		
8	Other WRITE IN _____		

Base: All who said "yes" at Q5

Q11b. How do you usually get there?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	On foot		
2	Cycle		
3	Public transport		
4	Private vehicle (as driver or passenger)		
5	Taxi		
6	Wheelchair or mobility scooter		
8	Other WRITE IN _____		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q12. How long do you usually stay at the site?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	15 mins or less		
2	Between 15 mins and one hour		
3	Between one to two hours		
4	More than two hours		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q13. What activities do you mostly do when you visit?

Main activity only.

SINGLE RESPONSE / RANDOMIZE

Code	Answer list	Scripting notes	Routing
1	Walking (without a dog)		
2	Dog walking		
3	Running or jogging		
4	Cycling		
5	Wildlife watching		
6	Picnicking / eating outside		
7	Playing with children		
8	Woodland crafts		
9	Horse riding		
10	Climbing trees		
11	Fishing		
12	Sports or games		
13	Organised activity e.g. ranger event		
14	Other WRITE IN _____		
15	None of the above		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q14. Do you do that activity you told me about…?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	More now the new trees are planted		
2	Less now the new trees are planted		
3	About the same as before the new trees were planted		

9

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q15. What is the **main** reason you visit Sence Valley Forest Park?

SINGLE RESPONSE / RANDOMIZE

Code	Answer list	Scripting notes	Routing
1	For physical health & exercise		
2	To take a break, get fresh air		
3	For mental health & wellbeing		
4	To be by myself		
5	To be with family and / or friends		
6	To connect to nature		
7	Other WRITE IN _____		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q16. Do you agree or disagree with these statements about the woodland?

SINGLE RESPONSE PER STATEMENT/ RANDOMIZE STATEMENT LIST

Code	Answer list	Scripting notes	Routing
1	I like the way the site is laid out		
2	The woodland feels enclosed and dark		
3	In autumn the leaves make a mess on the pavements around the area		
4	The site is often dirty with litter or dog poo		
5	I think the choice of trees is good		
6	Sence Valley has been improved with more paths and facilities like benches and information boards		
7	It is easy for me to find my way around the woodland		
8	Sence Valley has helped to create a sense of community		
9	I feel pride in Sence Valley		
10	I don't feel safe in Sence Valley		
11	I worry about anti-social behaviour taking place in Sence Valley		
12	Sence Valley needs to be maintained better		
13	There are enough open spaces in the woodland		
14	I would like other features like water or flowerbeds in the woodland		
15	I would like more facilities like a café and picnic tables in the woodland		

Code	Answer list	Scripting notes	Routing
1	Agree		
2	Disagree		
3	Don't know		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q17a. In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces? Here we are interested in time spent in any green space, not just Sence Valley

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Every day		
2	A few times a week		
3	Once a week		
4	Once or twice a month		
5	Once every 2-3 months		
6	Once every 6 months or less often		
7	Never		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q17b. Since you started visiting Sence Valley, do you visit other green spaces?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	More often		
2	Less often		
3	About the same frequency as before		

Base: All who said "no" at Q5.

Q18. Why is that?

OPEN ENDED RESPONSE

Base: All who said "no" at Q5.

Q19. In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Every day		
2	More than twice a week, but not every day		
3	Twice a week		
4	Once a week		
5	Once or twice a month		
6	Once every 2-3 months		
7	Once every 6 months or less often		
8	Never		

WOODLAND ENGAGEMENT OTHER THAN VISITING – SECTION 2

Base: All respondents

Q20. Have you…?

SINGLE RESPONSE / READ OUT STATEMENTS

Code	Statement list	Scripting notes	Routing
1	Been involved in or consulted about plans for creating, managing or using woodlands in your area		
2	Been involved in an organised tree planting event		
3	Been involved with a forest schools event in woodlands		
4	Been involved with a children's event in woodlands		
5	Become a member of a local community based woodland group such as a 'Community Trust' or 'Friends of' group		
6	Been litter picking in a woodland(s)		
7	Become a tree warden or wood warden for a local woodland(s)		
8	Attended regular woodland management volunteering events		
9	Attended a one-off woodland management volunteering event		
10	Attended any other type of organised event in the woodlands		

Code	Answer list	Scripting notes	Routing
1	Yes		
2	No		

LIFESTYLE SATISFACTION & PERSONAL HEALTH – SECTION 3

Base: All respondents

INFO1

We have some questions about your health & wellbeing. We are asking these questions because we want to investigate the connection between visiting nature and how people feel.

12

Base: All respondents

Q21a. Overall how satisfied are you with your life nowadays? Answer on a scale of 1 to 10, where 0 is "not at all satisfied" and 10 is "completely satisfied"

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "not at all satisfied"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "completely satisfied"		
12	Don't know		
13	Prefer not to say		

Base: All respondents

Q21b. Overall to what extent do you feel that the things you do in your life now are worthwhile? Answer on a scale of 1 to 10, where 0 is "not at all worthwhile" and 10 is "completely worthwhile"

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "not at all worthwhile"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "completely worthwhile"		
12	Don't know		
13	Prefer not to say		

Base: All respondents

Q21c. Overall how happy did you feel yesterday? Answer on a scale of 1 to 10, where 0 is "not at all happy" and 10 is "completely happy"

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "not at all happy"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "completely happy"		
12	Don't know		
13	Prefer not to say		

Base: All respondents

Q22. On a scale of 0 to 10, where 0 is "not anxious" and 10 is "completely anxious", overall, how anxious did you feel yesterday?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "not anxious"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "completely anxious"		
12	Don't know		
13	Prefer not to say		

Base: All respondents.

Q23. In general, would you say that your health is?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Very good		
2	Good		
3	Fair		
4	Bad		
5	Very bad		
6	Don't know		
7	Prefer not to say		

CONNECTION TO NATURE – SECTION 4

Base: All respondents

Q24a. Where 0 is "unimportant" and 10 is "important", how important is spending time in nature for you?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "unimportant"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "important"		

Base: All respondents

Q24b. Where 0 is "dull" and 10 is "exciting", how do you find spending time in nature?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "dull"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "exciting"		

BENEFITS & DISBENEFITS, INCLUDING WHAT IS VALUED – SECTION 5

Base: All respondents

Q25. Using a 5-point scale where 1 is strongly disagree, 3 is neither agree nor disagree, and 5 is strongly agree, how would you score the following statements:

"I value newly planted trees in my local area because…."

READ OUT STATEMENTS

SINGLE RESPONSE / RANDOMIZE

Code	Statement list	Scripting notes	Routing
1	…they contribute to my physical wellbeing		
2	…they are good for my mental wellbeing		
3	…they provide a peaceful refuge for me		
4	…they are important for wildlife		
5	…they make me feel more connected to nature		
6	…I like being a part of a landscape which is also home to wildlife		
7	…they are part of our cultural and historic landscape		
8	…they make me feel part of something bigger than myself		
9	…being among them I feel a sense of freedom		
10	…they make me feel creative and inspired		
11	…they can help me learn more about nature		
12	…they stimulate my senses		
13	…I feel touched by their beauty		
14	…they make me notice the changing seasons		
15	…they provide places to spend time with my friends and family		
16	…they provide places for my community to come together		
17	…they provide me with places for fun and enjoyment		

Code	Answer list	Scripting notes	Routing
1	1 "strongly disagree"		
2	2		
3	3 "neither agree or disagree"		
4	4		
5	5 "strongly agree"		

Base: All respondents

Q26. Which of these statements do you agree with?

READ OUT STATEMENTS

SINGLE RESPONSE / RANDOMIZE

Code	Statement list	Scripting notes	Routing
1	The area where I live needs more trees		
2	The area where I live needs fewer trees		
3	The area where I live has the right amount of trees		

Code	Answer list	Scripting notes	Routing
1	Agree		
2	Disagree		

PRO ENVIRONMENTAL BEHAVIOURS – SECTION 6

Base: All respondents

Q27. Do you do any of the following?

READ OUT STATEMENTS

MULTI RESPONSE / RANDOMIZE

Code	Statement list	Scripting notes	Routing
1	When you see litter, you pick it up		
2	You avoid eating animal products		
3	You avoid disturbing wildlife when in nature		
4	You talk to other people about the importance of protecting nature		
5	You educate yourself about protecting nature e.g. by watching documentaries or reading articles or books		
6	You sign petitions, contact your local MP or council, or participate in campaigns or demonstrations about protecting nature		
7	You survey or record wildlife, e.g. as part of the RSPB's Big Garden Birdwatch		
8	You do things in the garden to benefit wildlife		
9	None of the above	EXCLUSIVE	

SOCIO DEMOGRAPHICS – SECTION 7

Base: All Respondents

SINGLE RESPONSE

Q28. How old are you?

Code	Answer list	Scripting notes	Routing
1	18-24		
2	25-34		
3	35-44		
4	45-54		
5	55-64		
6	65+		
7	Refused		

Base: All Respondents

Q29. What gender do you identify with?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Male		
2	Female		
3	Non-binary		
4	Alternative identity		
5	Prefer not to say		

Base: All Respondents

Q30. What ethnicity do you identify as?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	White British / Irish/ Welsh / Scottish		
2	Mixed or multiple ethnic groups		
3	Asian or Asian British		
4	Black, African, Caribbean, or Black British		
5	Arab		
6	Any other ethnic group or background		
7	Don't know		
8	Prefer not to say		

19

Base: All Respondents

Q31. Please tell me, how many…..

OPEN RESPONSE

Code	Answer list	Scripting notes	Routing
1	Adults, including yourself, live in your household? (that is, age 18 and over)	OPEN RESPONSE	
2	Children aged 8-17 live in your household?	OPEN RESPONSE	
3	Children aged 7 and under live in your household?	OPEN RESPONSE	

Base: All Respondents

Q32. Which of the following best describes your employment status?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Student		
2	Unemployed		
3	Full time employed		
4	Part time employed		
5	Self employed		
6	Homemaker		
7	Retired		
8	Other (please specify):	OPEN RESPONSE	

Base: All Respondents

Q33. Approximately how many years have you lived at your current address?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	6 months or less		
2	More than 6 but less than 12 months		
4	1 to 2 years		
5	More than 2 but less than 5 years		
6	5 to 10 years		
7	10 years or more		

Base: All Respondents

Q33a. What is your postcode?

PLEASE RECORD

OPEN RESPONSE

Q33b. Approximately how long have you lived in the local area? (if different to your previous answer)

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	6 months or less		
2	More than 6 but less than 12 months		
4	1 to 2 years		
5	More than 2 but less than 5 years		
6	5 to 10 years		
7	10 years or more		
8	Not applicable		

Base: All Respondents

Q34. Are you a member of any of the following?

MULTI RESPONSE

Code	Answer list	Scripting notes	Routing
1	English Heritage		
2	Forestry England		
3	National Trust		
4	Royal Society for the Protection of Birds		
5	Wildlife Trust		
6	Woodland Trust		
7	Worldwide Fund for Nature		
8	Any other nature conservation organisation		
9	None of the above	EXCLUSIVE	

Base: All respondents

SINGLE RESPONSE

Q35. Do you have a dog in your household?

Code	Answer list	Scripting notes	Routing
1	Yes		
2	No		

Base: All respondents

SINGLE RESPONSE

Q36. Do you have access to a garden (private or shared) or an allotment?

Code	Answer list	Scripting notes	Routing
1	Yes		
2	No		

Base: All respondents

Q37. Would it be OK if DJS Research re-contacted you if we have a need to further clarify any of the responses you have given in this survey today or for quality purposes?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes	OPEN CONTACT DETAILS OPEN ENDS	
2	No		Q38

Code	Answer list	Scripting notes	Routing
1	Name	OPEN, FORCE ANSWER UNLESS REFUSED	
2	Email	OPEN, FORCE ANSWER UNLESS REFUSED	
3	Telephone number	OPEN, FORCE IF C09a=1 UNLESS REFUSED	
86	Refused	EXCLUSIVE	

Base: All respondents

Q38. We would like to collect your contact details for quality checking purposes. Are you happy to provide them for this purpose?

INTERVIEWER: YOU MUST OBTAIN TELEPHONE NUMBERS FOR AT LEAST 70% OF INTERVIEWS

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes	OPEN CONTACT DETAILS OPEN ENDS	
2	No		Q39

*Quality checking: If collecting for **quality checking purposes** you **must** obtain the respondent's **name, email and phone number**.*

Code	Answer list	Scripting notes	Routing
1	Name	OPEN, FORCE ANSWER UNLESS REFUSED	
2	Email	OPEN, FORCE ANSWER UNLESS REFUSED	
3	Telephone number	OPEN, FORCE IF C09a=1 UNLESS REFUSED	
86	Refused	EXCLUSIVE	

Base: All respondents

Q39. Do you want to be informed of the findings? If so please provide your email address.

Code	Answer list	Scripting notes	Routing
1	Yes	OPEN CONTACT DETAILS OPEN ENDS	
2	No		Q40

Code	Answer list	Scripting notes	Routing
1	Email	OPEN, FORCE ANSWER UNLESS REFUSED	

Base: All respondents

Q40. Do you want to know more about the project?

(INTERVIEWER: If so, provide FR contact details of project manager: Beth.brockett@forestresearch.gov.uk)

Base: All respondents

INFO2

(INTERVIEWER READ OUT AND SHOW TABLET)

The Forestry Commission's Data Protection Officer can be contacted at informationrights@forestrycommission.gov.uk for any queries about the use of their data.

Base: All respondents

INFO3

(INTERVIEWER READ OUT)

This is the end of the survey. Thank you for taking part, we really appreciate your feedback.

Questionnaire: Wave 2

I am working for <mark>XXXXX</mark> an independent research consultancy working on behalf of Forest Research, the research agency of the Forestry Commission. We're exploring how new tree planting affects nearby communities. This project, funded by the Department for Environment, Food and Rural Affairs, will inform policymakers and other decision-makers about how the benefits from local woodland management can be maximised for local communities.

This interview will take up to 10 to 15 minutes depending on your answers given.

<mark>XXXXX</mark> adheres to the Market Research Society Code of Conduct. If you want to verify that we are a bona fide agency, I can give you the Freephone number of the Market Research Society to ring. GIVE NUMBER IF REQUIRED (+44 (0) 800 975 9596).

SCREENING QUESTIONS

Base: All respondents

S01. Are you happy to take part in this research?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE
2	No		THANK & CLOSE

1

S02. We are interviewing people who live within 2.5km of certain woodlands – Could you tell me - What is the full postcode of your main residential address?

[Note for research team only: FR will provide a pre-defined list of postcodes (within 2.5km of the outer edge of the woodlands)].

Record postcode:

Note for interviewer:
Is postcode on the list relevant to the location of the interviewer? (at this stage interviewer will have either the full list of postcodes for NF or the full list of postcodes for MV)
(And we decided that even if they are being approached at a woodland site, if their home postcode is not within a 2.5km distance of any site, they will not continue with the questionnaire)

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE
2	No		THANK & CLOSE
3	Refuse to provide postcode		THANK & CLOSE

Interviewer to check:
Is the postcode within the 2.5km buffer of:

Code	Answer list	Scripting notes	Routing
1	More than one woodland		CONTINUE
2	Only one woodland		SKIP TO S03b

There will be some postcodes that fall within the 2.5km distance of more than one woodland. If this is the case ask:

S03a: Do you know any of these young woodland sites [only read out descriptions which relate to woodlands within the postcode buffer]:
(Interviewer to describe only the relevant sites at this point, plus using map(s) and Photos, if needed.)

Marston Vale woodland sites
The Gateway Cluster of young woodlands, in Kempston Rural and Wootton area. This includes: • Buttons Ramsey, • The Kill, • Green End Wood, • Wiles Wood, • Ridgeway Wood. This map shows the location of these woodlands, along with some photos.

2

The respondent may know one, some or all of these woodlands – questions can be asked about the cluster or individual woodlands.
Rectory Wood in Cranfield, the newer planting off Rectory Lane and near to the older woodland called The Thrift. This map shows the location of these woodlands, along with some photos.
Waypost Wood on the edge of Cranfield, off Lodge Road. This map shows the location of these woodlands, along with some photos.
Wilstead Community Woodland. This young woodland is north of Wilstead, towards Wixams, but the opposite side of the A6 from Wixams. It can be accessed via Duck End Lane. This map shows the location of these woodlands, along with some photos.
Shocott Spring woodland is in-between Cotton End and Shortstown. This map shows the location of these woodlands, along with some photos.

National Forest woodlands
Queen Elizabeth Diamond Jubilee Woodland - This wood is situated close to the village of Normanton le Heath, just off Heather Lane. This is a Woodland Trust site and it features a car park and a lake. It's also not far from Ibstock. There's a large wind turbine opposite the entrance to the car park.
Sence Valley Park - Forestry England managed site between Ibstock and Heather. In the main car park is 'The Little Bluebird Café'.
Old Parks Farm - From Ashby, you can walk down a narrow wooded trail which takes you behind the McVities Warehouse and under the A511 and eventually to the woodland on the right of the trail. You can also enter the site from the A511 not far from Tesco; this small path takes you straight into the newly planted areas of the site. The site may also be known as Alistair's Wood which is adjacent to Old Parks Farm.
Brookvale - Situated near Ratby, Brookvale wood sits just off the M1. To the north west of the site you have Martinshaw Wood. Brookvale Groby Learning Centre is located to the North East, Groby Parish Cemetery to the South East, and the M1 runs along the South Western border of the site. To access the site, users may park at Martinshaw Wood Car Park when coming from Ratby and walk across a bridge taking you over the M1. The site features lots of newly planted trees, some of which are contained in low-fenced compounds which you can walk through.

Code	Answer list	Scripting notes	Routing
1	Yes, more than one		CONTINUE to Q1a
2	Yes, only one		Note which one and continue to Q1d
3	No		THANK & CLOSE

3

S03b: Do you know [whichever one woodland is the one matched to their postcode]? See previous table for all woodland descriptions.

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE to Q1d
2	No		THANK & CLOSE

MAIN QUESTIONS (i.e. not screener questions) START HERE

MAIN QUESTIONS – SECTION 1

Base: Only those whose postcode is within 2.5km of more than one woodland AND who answered that they have heard of more than one on the list.

Q1a: Have you visited any of these woodlands?

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE
2	No		ROUTE TO Q2 Note which of the woodlands is nearest to home postcode.

Q1b: Of these woodlands have you visited:

Code	Answer list	Scripting notes	Routing
1	More than one of them		CONTINUE
2	Only one of them		Note which one and skip to Q2

Q1c: Which of those do you visit most frequently? *(Select one)*
Note name of woodland and Skip to Q2 using this woodland as the focus for questions

Q1d: Have you visited [the one named woodland matched to their postcode]

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE
2	No		CONTINUE

Note for interviewer: By this point all interviewees should be associated with ONLY ONE woodland.

Record name of specific woodland.

Read out the following text:

I am going to be asking you questions about [*Read out one of the following, as appropriate*]:

Marston Vale woodland sites
The Gateway Cluster of Woodlands, which includes Buttons Ramsey, The Kill, Green End Wood, Wiles Wood, Ridgeway Wood. Tree planting started here in 2005 (19 years ago) and there were subsequent waves of planting between 2007 and 2016. When I talk about 'young woodland' (or 'new planting') this is what I am referring to.

5

Buttons Ramsey - trees were planted here in 2005 (19 years ago). When I talk about 'young woodland' (or 'new planting') this is what I am referring to.
Ridgeway Wood - trees were planted here in 2005 (19 years ago). When I talk about 'young woodland' (or 'new planting') this is what I am referring to.
Wiles Wood - trees were planted here in in 2007 (17 years ago), with another phase of planting in 2013. When I talk about 'young woodland' (or 'new planting') this is what I am referring to.
The Kill - trees were planted here in 2007 (17 years ago). When I talk about 'young woodland' (or 'new planting') this is what I am referring to.
Green End Wood - trees were planted here in 2016 (8 years ago). When I talk about 'young woodland' (or 'new planting') this is what I am referring to.
Rectory Wood - trees were planted here in 2004 (20 years ago) and there were subsequent waves of planting between 2005 and 2014. When I talk about 'young woodland' (or 'new planting') this is what I am referring to. I am not referring to the established, older adjacent wood called The Thrift.
Waypost Wood - trees were planted here in 2017 (7 years ago) and there was a subsequent wave of planting in 2018. When I talk about 'young woodland' (or 'new planting') this is what I am referring to.
Wilstead Community Woodland - trees were planted here in 2019 (5 years ago) and there was a subsequent wave of planting in 2020. When I talk about 'young woodland' (or 'new planting') this is what I am referring to. I am not referring to the established, older Wilstead Wood which is further out of the village to the south east.
Shocott Spring woodland – trees were planted here in 2006 (18 years ago) and there were subsequent waves of planting between 2008 and 2011. When I talk about 'young woodland' (or 'new planting') this is what I am referring to.

National Forest woodlands
Queen Elizabeth Diamond Jubilee woodland - Tree planting started at Queen Elizabeth Diamond Jubilee Woods (Aka Jubilee Woods) in 2010 (14 years ago) and there were subsequent waves of planting between 2011-2013. When I talk about 'young woodland' (or 'new planting') this is what I am referring to. I am not referring to the more established, older woodland.
Sence Valley Park - There has been recent tree planting at Sence Valley Forest Park (Aka Sence Valley) in 2018/2019 (5-6 years ago). When I talk about 'young woodland' (or 'new planting') this is what I am referring to. I am not referring to the established, older Sence Valley woodland.
Old Parks Farm - There has been recent tree planting at Old Parks Farm in 2015 and 2016/2017 (7-9 years ago). You will see most of the new planting has been fenced in. When I talk about 'young woodland' (or 'new planting') this is what I am referring to. I am not referring to the established, older woodland located at the centre of the site, which was planted in 1999.
Brookvale- Tree planting started at Brookvale Wood in 2013 (11 years ago) and planting has continued annually since then. When I talk about 'young

> woodland' (or 'new planting') this is what I am referring to. I am not referring to the established, older Martinshaw Wood.

Base: All respondents

Q2. Approximately how long in minutes would it take you to walk from your home to 'the named woodland identified in previous question'? (If interviewee is unable to walk and uses a mobility scooter or wheelchair, how long would it take them using that mode?)

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	5 minutes or less		
2	6-10 minutes		
3	11-20 minutes		
4	21-29 minutes		
5	30 minutes +		

Base: All respondents

Q3. Trees have been planted at XXX site to create young woodland. Do you think ? .... SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	This is a good thing?		CONTINUE
2	This is not a good thing?		CONTINUE
3	Don't know		CONTINUE

At this point route all who said "No" at Q1a and all who said "No" at Q1d to Q12 (non-visitors)

Base: All who said "yes" at Q1a and all who said "yes" at Q1d. (visitors)

Q4a. How frequently do you visit this woodland?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Several times per week		
2	Several times per month		
3	About once a month		
4	Less often		

Q4b - Did you visit the site before the new trees were planted?

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE
2	No		SKIP TO Q6

7

Base: All who said "yes" at Q4b.

Q5. Do you visit the site more often, less often or about the same amount since the (younger) trees have been planted?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	More often		
2	About the same frequency as before		
3	Less often		

Base: All who said "yes" at Q1a and all who said "yes" at Q1d. (visitors)

Q6. How long do you usually stay at the site?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	15 mins or less		
2	Between 15 mins and one hour		
3	Between one to two hours		
4	More than two hours		

Base: All who said "yes" at Q1a and all who said "yes" at Q1d. (visitors)

Q7. What is the main activity that you do when you visit? Ask this as an open ended question and code to nearest option.

Main activity only.

Code	Answer list	Scripting notes	Routing
1	Walking (without a dog)		
2	Dog walking		
3	Running or jogging		
4	Cycling		
5	Wildlife watching		
6	Picnicking / eating outside		
7	Playing with children		
8	Woodland crafts		
9	Horse riding		
10	Climbing trees		
11	Fishing		
12	Sports or games		
13	Organised activity e.g. ranger event		
14	Other WRITE IN _____		
15	None of the above		

Base: All who said "yes" at Q1a and all who said "yes" at Q1d. (visitors)

Q8. Do you do that activity you told me about…?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing

1	More since the young woodland has been planted		
2	About the same as before the young woodland was planted		
3	Less since the young woodland has been planted		

Base: All who said "yes" at Q1a and all who said "yes" at Q1d. (visitors)

Q9. What is the **main** reason you visit the young woodland at [named woodland]?

SINGLE RESPONSE / RANDOMIZE

Code	Answer list	Scripting notes	Routing
1	For physical health & exercise		
2	To take a break, get fresh air		
3	For mental health & wellbeing		
4	For time alone		
5	To be with family and / or friends		
6	To connect to nature		
7	Other WRITE IN _____		

Base: All who said "yes" at Q1a and all who said "yes" at Q1d. (visitors)

Q10. Do you agree or disagree with these statements about the woodland? All statements refer to the young woodland we have previously discussed

SINGLE RESPONSE PER STATEMENT/ RANDOMIZE STATEMENT LIST

Code	Answer list	Scripting notes	Routing
1	I like the way the site is laid out		
2	The woodland seems dark and unwelcoming		
3	In autumn the leaves make a mess on the pavements around the area		
4	The site is often dirty with litter or dog mess		
5	I think the choice of trees is good		
6	The site has been improved with more paths and facilities like benches and information boards		
7	It is easy for me to find my way around the woodland		
8	The woodland has helped to create a sense of community		
9	I feel pride in the woodland		
10	I feel safe in the woodland		
11	I worry about anti-social behaviour taking place in the woodland		
12	The woodland needs to be maintained better		
13	There are enough open spaces in the woodland		

14	I would like other natural features like water or flowerbeds in the woodland		
15	I would like more facilities like a café and picnic tables in the woodland		
16	The woodland has improved the quality of the local environment		
17	The woodland has improved local landscapes		
18	The woodland has increased house prices in the area		
19	The woodland helps protect the area from over-development		
20	The woodland is good because it is important to plant more trees		
21	The woodland is good for wildlife		
22	I feel a sense of personal responsibility for this woodland		

Code	Answer list	Scripting notes	Routing
1	Agree		
2	Disagree		
3	Don't know		

Base: All who said "yes" at Q1a and all who said "yes" at Q1d. (visitors)

Q11. In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces? We are interested in time spent in any green space, including [named woodland]

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Every day		
2	A few times a week		
3	Once a week		
4	Once or twice a month		
5	Once every 2-3 months		
6	Once every 6 months or less often		
7	Not at all		

Base: All who said "no" at Q1a and all who said "no" at Q1d.

Q12. Why is that?

Ask as open ended question and interviewer to code to nearest category

Code	Answer list	Scripting notes	Routing
1	Not interested		
2	Prefer to visit other places		
3	Lack of facilities		
4	I'm too busy		
5	Unwell/ in poor health		
6	Lack of transport		
7	I don't like muddy places		

8	I have no reason to go there		
9	I do other things in my spare time		
10	For a day out I would travel further away		
11	I have never thought about it		
12	I have poor mobility		
13	Too many work commitments		
14	I have no-one to take me		
15	I might get lost (or similar)		
16	Caring responsibilities (child, adult)		
17	Some other reason... Record that		

Base: All who said "no" at Q1a and all who said "no" at Q1d.

Q13. Do you agree or disagree with these statements about the NAMED WOODLAND SITE?

SINGLE RESPONSE PER STATEMENT/ RANDOMIZE STATEMENT LIST

Code	Answer list	Scripting notes	Routing
1	The woodland has improved the quality of the local environment		
2	The woodland has improved local landscapes		
3	The woodland has increased house prices in the area		
4	The woodland helps protect the area from over-development		
5	The woodland is good because it is important to plant more trees		
6	The woodland is good for wildlife		
7	In autumn the leaves make a mess on the pavements around the area		
8	The woodland has helped to create a sense of community		
9	I feel pride in the woodland		
10	I worry about anti-social behaviour taking place in the woodland		

Code	Answer list	Scripting notes	Routing
1	Agree		
2	Disagree		
3	Don't know		

Base: All who said "no" at Q1a and all who said "no" at Q1d.

Q14. In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces?

SINGLE RESPONSE

11

Code	Answer list	Scripting notes	Routing
1	Every day		
2	More than twice a week, but not every day		
3	Twice a week		
4	Once a week		
5	Once or twice a month		
6	Once every 2-3 months		
7	Once every 6 months or less often		
8	Not at all		

WOODLAND ENGAGEMENT OTHER THAN VISITING – SECTION 2

Base: All who said "yes" at Q1a and all who said "yes" at Q1d.

Q15a. Have you…?

SINGLE RESPONSE / READ OUT STATEMENTS

Code	Statement list	Scripting notes	Routing
1	Been involved in or consulted about plans for creating, managing or using woodlands in your area		
2	Been involved in an organised tree planting event		
3	Been involved with a forest school event in woodlands		
4	Been involved with a children's event in woodlands		
5	Become a member of a local community based woodland group such as a 'Community Trust' or 'Friends of' group		
6	Been litter picking in a woodland(s)		
7	Become a tree warden or wood warden for a local woodland(s)		
8	Attended regular woodland management volunteering events		
9	Attended a one-off woodland management volunteering event		
10	Attended any other type of organised event in the woodlands		

Code	Answer list	Scripting notes	Routing
1	Yes		For any options where Yes continue to next question Q15b

12

2	No		For any options where No skip to Q19a

Base: All who said "yes" at Q1a and all who said "yes" at Q1d.

Q15b: If yes to any of the above, was this in connection with / at the NAMED SITE or somewhere else?

Note for interviewer: Ask only those that they said yes to at Q15a

Code	Statement list	Scripting notes	Routing
1	Been involved in or consulted about plans for creating, managing or using woodlands in your area		
2	Been involved in an organised tree planting event		
3	Been involved with a forest schools event in woodlands		
4	Been involved with a children's event in woodlands		
5	Become a member of a local community based woodland group such as a 'Community Trust' or 'Friends of' group		
6	Been litter picking in a woodland(s)		
7	Become a tree warden or wood warden for a local woodland(s)		
8	Attended regular woodland management volunteering events		
9	Attended a one-off woodland management volunteering event		
10	Attended any other type of organised event in the woodlands		

Code	Answer list	Scripting notes	Routing
1	AT NAMED SITE		
2	SOMEWHERE ELSE		

Base: All who said "no" at Q1a and all who said "no" at Q1d.

Q16: Have you…?

Code	Statement list	Scripting notes	Routing
1	Been involved in or consulted about plans for creating, managing or using THE NAMED WOODLAND		

13

	Been involved in or consulted about plans for creating, managing or using other woodlands in your area		
2	Been involved in an organised tree planting event elsewhere		
3	Been involved with a forest schools event in woodlands elsewhere		
4	Been involved with a children's event in woodlands elsewhere		
5	Become a member of a local community based woodland group such as a 'Community Trust' or 'Friends of' group elsewhere		
6	Been litter picking in a woodland(s) elsewhere		
7	Become a tree warden or wood warden for a local woodland(s) elsewhere		
8	Attended regular woodland management volunteering events elsewhere		
9	Attended a one-off woodland management volunteering event elsewhere		
10	Attended any other type of organised event in the woodlands elsewhere		

Code	Answer list	Scripting notes	Routing
1	Yes		
2	No		

Base: All who said "no" at Q1a and all who said "no" at Q1d.

Q17a Were you aware of any consultation or other opportunity to engage with the planning or management for the new site/tree planting?

Code	Answer list	Scripting notes	Routing
1	Yes		Q17b
2	No		Q17c

Q17b Did you get involved?

Code	Answer list	Scripting notes	Routing
1	Yes		Q18
2	No		Q17c

Q17c Would you have liked the opportunity to be involved?

Code	Answer list	Scripting notes	Routing
1	Yes		
2	No		

Base: All who said "no" at Q1a and all who said "no" at Q1d.

14

Q18 Are you aware of any organised volunteering or social activities that have happened at the woodland site?

Code	Answer list	Scripting notes	Routing
1	Yes		
2	No		
3	Don't know		

LIFESTYLE SATISFACTION & PERSONAL HEALTH – SECTION 3

Base: All respondents

INFO1

We have some questions about your health & wellbeing. We are asking these questions because we want to investigate the connection between visiting nature and how people feel.

Base: All respondents

Q19a. Overall how satisfied are you with your life nowadays? Answer on a scale of 1 to 10, where 0 is "not at all satisfied" and 10 is "completely satisfied"

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "not at all satisfied"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "completely satisfied"		
12	Don't know		
13	Prefer not to say		

Base: All respondents

Q19b. Overall to what extent do you feel that the things you do in your life now are worthwhile? Answer on a scale of 1 to 10, where 0 is "not at all worthwhile" and 10 is "completely worthwhile"

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "not at all worthwhile"		

2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "completely worthwhile"		
12	Don't know		
13	Prefer not to say		

Base: All respondents

Q19c. Overall how happy did you feel yesterday? Answer on a scale of 1 to 10, where 0 is "not at all happy" and 10 is "completely happy"

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "not at all happy"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "completely happy"		
12	Don't know		
13	Prefer not to say		

Base: All respondents

Q20. On a scale of 0 to 10, where 0 is "not anxious" and 10 is "completely anxious", overall, how anxious did you feel yesterday?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "not anxious"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		

11	10 "completely anxious"		
12	Don't know		
13	Prefer not to say		

Base: All respondents.

Q21. In general, would you say that your health is?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Very good		
2	Good		
3	Fair		
4	Bad		
5	Very bad		
6	Don't know		
7	Prefer not to say		

CONNECTION TO NATURE – SECTION 4

Base: All respondents

Q22a. Where 0 is "unimportant" and 10 is "important", how important is spending time in nature for you?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "unimportant"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "important"		

Base: All respondents

Q22b. Where 0 is "dull" and 10 is "exciting", how do you find spending time in nature?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "dull"		
2	1		

3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "exciting"		

BENEFITS & DISBENEFITS, INCLUDING WHAT IS VALUED – SECTION 5

Base: All respondents

Q23. Using a 5-point scale where 1 is strongly disagree, 3 is neither agree nor disagree, and 5 is strongly agree, how would you score the following statements:

"I value young woodland and newly planted trees in my local area because…."

READ OUT STATEMENTS

SINGLE RESPONSE / RANDOMIZE

Code	Statement list	Scripting notes	Routing
1	…they contribute to my physical wellbeing		
2	…they are good for my mental wellbeing		
3	…they provide a peaceful refuge for me		
4	…they are important for wildlife		
5	…they make me feel more connected to nature		
6	…I like being a part of a landscape which is also home to wildlife		
7	…they are part of our cultural and historic landscape		
8	…they make me feel part of something bigger than myself		
9	…being among them I feel a sense of freedom		
10	…they make me feel creative and inspired		
11	…they can help me learn more about nature		
12	…they stimulate my senses		
13	…I feel touched by their beauty		
14	…they make me notice the changing seasons		
15	…they provide places to spend time with my friends and family		
16	…they provide places for my community to come together		
17	…they provide me with places for fun and enjoyment		

Code	Answer list	Scripting notes	Routing
1	1 "strongly disagree"		
2	2		
3	3 "neither agree or disagree"		
4	4		
5	5 "strongly agree"		

19

SOCIO DEMOGRAPHICS – SECTION 6

Base: All Respondents

SINGLE RESPONSE

Q24. How old are you?

Code	Answer list	Scripting notes	Routing
1	18-24		
2	25-34		
3	35-44		
4	45-54		
5	55-64		
6	65+		
7	Refused		

Base: All Respondents

Q25. What gender do you identify with?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Male		
2	Female		
3	Non-binary		
4	Alternative identity		
5	Prefer not to say		

Base: All Respondents

Q26. What ethnicity do you identify as?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	White British / Irish / Welsh / Scottish		
2	Mixed or multiple ethnic groups		
3	Asian or Asian British		
4	Black, African, Caribbean, or Black British		
5	Arab		
6	Any other ethnic group or background		
7	Don't know		
8	Prefer not to say		

Base: All Respondents

Q27. Which of the following best describes your employment status?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Student		
2	Unemployed		
3	Full time employed		
4	Part time employed		
5	Self employed		
6	Homemaker		
7	Retired		
8	Other (please specify):	OPEN RESPONSE	

Base: All respondents

Q28: What is your highest level of qualification?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	GCSEs or equivalent		
2	A-Levels or equivalent		
3	Vocational qualification (e.g., NVQ, BTEC)		
4	Apprenticeship		
5	Higher National Certificate (HNC) / Higher National Diploma (HND)		
6	Bachelor's degree or equivalent		
7	Postgraduate qualification (e.g., Master's degree, PhD)		
8	Professional qualification (e.g., Chartered Accountant, Solicitor)		
9	No formal qualifications		
85	Don't know		
86	Prefer not to say		

Base: All Respondents

Q29. Approximately how long have you lived in the local area?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	6 months or less		
2	More than 6 but less than 12 months		

4	1 to 2 years		
5	More than 2 but less than 5 years		
6	5 to 10 years		
7	10 years or more		

Base: All respondents

SINGLE RESPONSE

Q30. Do you have a dog in your household?

Code	Answer list	Scripting notes	Routing
1	Yes		
2	No		

Base: All respondents

SINGLE RESPONSE

Q31. Do you have access to a garden (private or shared) or an allotment?

Code	Answer list	Scripting notes	Routing
1	Yes		
2	No		

Base: All respondents

Q32. Would it be OK if XXXXX re-contacted you if we have a need to further clarify any of the responses you have given in this survey today?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes	OPEN CONTACT DETAILS OPEN ENDS	
2	No		Q33

Code	Answer list	Scripting notes	Routing
1	Name	OPEN, FORCE ANSWER UNLESS REFUSED	
2	Email	OPEN, FORCE ANSWER UNLESS REFUSED	
3	Telephone number	OPEN, FORCE IF C09a=1 UNLESS REFUSED	
86	Refused	EXCLUSIVE	

Base: All respondents

Q33. We would like to collect your contact details for quality checking purposes. Are you happy to provide them for this purpose?
INTERVIEWER: YOU MUST OBTAIN TELEPHONE NUMBERS FOR AT LEAST 70% OF INTERVIEWS

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes	OPEN CONTACT DETAILS OPEN ENDS	
2	No		Q34

*Quality checking: If collecting for **quality checking purposes** you **must** obtain the respondent's **name, email and phone number**.*

Code	Answer list	Scripting notes	Routing
1	Name	OPEN, FORCE ANSWER UNLESS REFUSED	
2	Email	OPEN, FORCE ANSWER UNLESS REFUSED	

3	Telephone number	OPEN, FORCE IF C09a=1 UNLESS REFUSED	
86	Refused	EXCLUSIVE	

Base: All respondents

Q34: Please confirm if you would like to receive an email with a summary of the results of this research (likely to be available from April 2025) – this is optional, but if you agree it would mean XXXX would hold your contact details until the date the summary of results is available so that we can forward on the relevant information.

MULTI RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes, I would like to receive an email containing a link to Forest Research's summary of results of this research		
2	No, I do not wish to receive any further information	EXCLUSIVE	

Base: All respondents

INFO2

(INTERVIEWER READ OUT AND SHOW TABLET)

The Forestry Commission's Data Protection Officer can be contacted at informationrights@forestrycommission.gov.uk for any queries about the use of their data.

The Forestry Commission's Personal Information Charter is available to read here: Personal information charter - Forestry Commission - GOV.UK (www.gov.uk)

Base: All respondents

INFO3

(INTERVIEWER READ OUT)

This is the end of the survey. Thank you for taking part, we really appreciate your feedback.

Interview 1 – The interviewee's history

Notes for interviewer in blue; interview questions in black – to read out

Rationale:

We consider the experiences of new local tree planting with people from two different communities. Accepting that life experience has influence on how people think about and experience nature and trees we are using a methodology which allows us to better understand these life experiences, alongside current and past experience of local tree planting sites. Although not strictly an unstructured life history method our approach does attempt to take account of life history. This approach also gives us scope to explore how people envisage or hope to experience sites into the future.

Analysis will draw on a case biography approach (Shirani et al. 2015; Butler et al XX), focusing on illustrative case studies whilst weaving accounts together "to provide further illumination of sentiments expressed. As such, we seek to emphasise the detail and complexity in individual accounts whilst demonstrating awareness of how they are situated within the wider data set (cf Thomson 2009)". In practice, this means conducting both cross-sectional thematic analysis as well as case-based analysis approaches such as trajectory analysis. Three waves of data collection will "bring together data from across three interviews to facilitate a layering, thickening, or accumulation of detail, which helps further to situate the accounts" (Shirani et al 2015). "This approach enables us to explore personal experiences and to draw on these accounts as a window onto wider social change by eliciting issues of broader significance (cf Yates 2003)" (Shirani et al 2015).

We will use Berglind Karlsdóttir's new conceptual model of environmental-human change processes as the theoretical basis for the analysis (see below). This model (or framework) illustrates the various ways in which changes to the environment can impact the human experience and has been based on a review of the literature (REF). We have used the model as a guide for wave 1 but may decide to use the model more to help structure future waves e.g. it may be appropriate to wave 2 – which will seek to better understand the participants' perception and experience of the new planting and associated environmental change.

Based on discussions with Fiona Shirani, we will also consider using later waves to test our theoretical understandings through the interview – checking in with participants about the validity of the theoretical approaches – being transparent about what we are basing our research on and testing that directly with the participants.

- **Wave 1** will focus on the individuals' life history and personal values and beliefs. As well as how they value nature and an understanding of their values more broadly.
- **Wave 2** will be informed by the previous wave, but will likely focus on a prospective look at the life course and the role of the local site. How they think it will change and how this might affect how they use it, sense of place etc (referring to wave 2 responses). It could also explore how their attitudes and perceptions have changed over the time they have spent
- **Wave 3** will focus on their experience of the site and tree planting (broadest sense) and any environmental change they have perceived and experienced through the site. Their sense of place and how the site fits into that. How they use the site (inc pro env activities) and how the site impacts their non-material wellbeing and their health inc social connectivity and purpose (the range of wellbeing). This will include their thoughts and ideas about the site, improvements etc.

Interview methodology:

Aim of Wave 1 interviews:

- Understanding the context in terms of the interviewee's life history and personal values/beliefs. Including encouraging any important contextual factors such as material wellbeing, subjective wellbeing, spirituality/religion, etc to emerge.
- Understanding the context in terms of how they value nature in general and how trees and woodland fit into this.
- (Starting to understand their thoughts on and engagement with their local nature.)

Try to maintain an inductive questioning approach and be led by the interviewee instead of asking questions which you may already know are not relevant to the interviewee or consistent with their worldview.

Before the interview, the interviewee will be asked to draw and return a timeline which they can then use as the basis for their narrative account. They can draw their timeline digitally or with pen and paper. Let them know that it can be a simple timeline with a few points, or a more detailed timeline accompanied by photos if they wish. Let them know that if they do not have time to complete the timeline, it's not a problem and you will do it together during the interview instead given that it's on Teams or a similar platform rather than over the phone. In this case, use a program like power point or visio to draw the timeline and screenshare either as you are drawing or after you have finished the drawing to check it with the participant.

Pre-interview timeline instructions: Before the interview it would be helpful if you could draw a timeline of your life which includes significant life events – it is your choice which events you include. If you can think of any significant events or periods of time which have affected or defined your relationship with nature (or trees/woodlands specifically), please add these to your timeline too. You can draw the timeline with a pen and paper or on a computer in a programme such as paint or PowerPoint. It can be a simple timeline with a few points or more detailed, as you like. You can use photos or drawings to help illustrate it if you wish. The timeline will help guide our discussion. We provide some example timelines, but feel free to use a different approach – be as creative as you like. It would be very helpful if you could send me a photo of this timeline in advance of the interview – provide email address and phone number. Or you can post it to me at – address. If you do not have time to do this before the interview, that is fine, we will do it together during the interview.

Examples of timelines:

1990 — I was born in Reykjavík
1997 — We moved to Denmark
2002 — My parents got a divorce
2009 — I moved from Denmark

1993 — Iris was born (my autistic sister)
1998 — Katrin was born
2005 — My dad moved back to Iceland
2016 — Iris got diagnosed

Today...

GET A JOB

plans — Start Driving

hopes and fears

dog dont Die.

John's Timeline – Nature focus

1985: Birth & Childhood explorations: I was born in a mountainous region, I spent my childhood exploring forests, streams and meadows

2010: The Savannah holiday: South Africa. Visited Kruger National Park and saw incredible wildlife

2012: Moved to the city: Found it hard moving to the city, felt alien living in an urban location.

2014: Bought a house. I wanted a large garden with plenty of wildflowers.

2005: Ecology Studies: I pursued a degree in ecology, I am interested in understanding ecosystems and their delicate balance

2011: Volunteer Wildlife rehabilitation: Volunteered at a wildlife rehabilitation centre looking after orphaned animals.

2013: Parkrun. Begun running in my local park, I enjoyed the exercise and being in a more natural space.

Pre-interview data collection:

We have already provided participants with information about the project, their involvement and asked the participants to provide consent. We have also obtained the following data:

- Whether they are participating as individuals or other (e.g. a couple)
- The local project woodland sites they visit regularly
- Approximately how close they live to the woodlands
- Whether they regularly exercise a dog
- How long they have lived at their current address
- Age bracket
- Gender identity

- Ethnic group
- Employment status
- Whether they have any physical or mental health conditions or illnesses lasting or expected to last for 12 months or more

Please familiarise yourself with this data before the interview and have it to hand so you can use it to tailor the questions, where appropriate.

General guidance for interviewer

Try not to ask biased questions or give your opinion.

In particular, look for:

- Clarifications on anything of significance which you didn't understand. (*E.g. so did you move to this place before or after you travelled to America and discovered a connection to forests?*)
- Asking about any elements of their timeline which they didn't discuss but you feel are worth exploring further. But accept if there are elements they don't want to discuss.
- Following up on topics which appeared important to the interviewee to ensure you have correctly interpreted these (i*.e. am I right in thinking this move to the countryside was a positive experience for you, and that you didn't spend much time in nature beforehand etc*.)
- If the interviewee has focused on non-woodland natural places, try to understand how trees and woodlands in particular fit within their relationship with nature. Try to do this within their own framings of their relationships with nature (*E.g. if they talk a lot about how having children has changed their nature experiences, you could ask how it's changed their experiences of woodland*.)

Introduction to interview:

Introduction to study. Talk about what their involvement will include:

Thank you very much for agreeing to take part in this study. I am XXXX and I will be interviewing you today, it is informal so please feel free to ask questions any time or stop me if you need a break. Introduce anyone else on the call and why they are there.

Check whether participant has any additional needs / adjustments required to comfortably take part in the interview.

There is a national policy drive to plant lots of trees and this study is about the social effects of tree planting and woodland creation. Evidence shows that who you are as a person, your life experiences and your values, affect how you experience changes to the natural environment. Because of that, we are taking a biographical approach to this research: we want to spend some time getting to learn about you and your life history.

We have allocated up to 90 minutes for this interview, although it may take less time. Is that ok?

We will spend about half an hour discussing your relationship with nature and to trees specifically. We will then spend about half an hour, or a bit longer, discussing your life more generally. This is where the timeline we asked you to draw comes in, but please don't worry if you have not had chance to do this, as we can draw it together. Keep an eye on the time and make sure you have moved on to second section after 40 mins.

As you know, this is the first of the three interviews. In the second interview, which I will tell you more about at the end, we will explore more about your local woodland site NAME.

The voucher payment will be provided once all 3 interviews have been completed – this is because we can only use your data if you have taken part in all three interviews – it is to help us with participant retention.

You are free to decline to answer any questions or ask for more explanation at any point.

As indicated in the consent form you completed, I would like to record this interview to help me remember accurately what you said. Is it ok for me to turn the recording device on now and proceed with the questions?

Section 1: Specific questions about nature (up to 40 minutes)

In this section we are

- Easing them into the conversation, helping them feel comfortable and getting to know each other as interviewer and interviewee
- Finding out what nature means to them
- Their version of what is good 'quality' nature, specifically relating to trees and new planting
- Being attentive to different versions of nature and attributes of nature
- We are interested in learning about their relationship to nature via using local examples and experiences – but it is less about getting a comprehensive understanding of their nature experiences and more about eliciting values and attitudes in this interview

READ OUT: First, I would like to take a bit of time to ask you some questions about your personal relationship to nature and what nature means to you. While we will focus on nature, feel free to draw on other parts of your life like your values, lifestyle or memories which you feel are important.

General relationship to nature

1. **What do you think of when I say the word 'nature'?** May need to prompt to get them to explain a bit more of their answer. Note any personal details which could be brought in later.
2. **In a normal week, how much time do you usually spend in nature?** Prompt: If they indicate any barriers to spending more time in nature, probe about the nature of those barriers.
3. How does being in nature make you feel?
4. When you spend time in nature, where do you usually go? prompt: what kind of natural environments? Enquire after mundane ("day to day") and also destination visits ("special"). They may have started discussing this in the response to the previous question – so can leave or probe a bit further.
5. **Why do you spend time in NAME OF PLACE JUST MENTIONED?** Prompt – explore each place they have mentioned and try to get to the specific elements they enjoy regarding the natural environment
6. **What do you do when you go to these places?** Prompt: make sure there is opportunity for them to outline different activities depending on the place and why they visit
7. What are your most and least favourite natural places, and why? (prompt What about locally? – if answered with non-local examples)

8. **What does nature mean to you?** Prompt to ask how important it is to them, if it doesn't come up naturally. People may find this difficult to answer, as they may not have thought about it in this way.

9. **Do you feel part of nature?** Give people time to answer in whatever way they interpret. If they are really struggling you could prompt perhaps with regard to how they think people fit with natural systems?

10. Do you think spending time in nature benefits you? Prompt – ask about health and wellbeing if doesn't come up. This may have already come up in response to Q5 – so use opportunity to explore in more depth.

11. How important is protecting nature to you personally? Prompt to find out if/how they act for nature in their day to day lives (some examples you could use to prompt - memberships or donate to nature orgs, volunteering, talking to others about nature, sign petitions, educate themselves, survey or record wildlife etc).

Focus on woodland

READ OUT: We have talked a bit about nature in general, but now I would like to know how you feel about trees and woodland specifically.

(If they have already talked about trees or woodland, try to acknowledge and refer back to that)

12. **Are trees and woodland important to you? Why/why not?** prompt for some experiences of trees and woodland recent or in past

13. Do you feel differently about woodland compared to some of your other favourite natural places you mentioned previously? Prompt: If they previously mentioned woodland as a favourite natural place then compare to another type of habitat that has come up.

14. **Do you visit woodlands or other places with trees regularly?** only if not already covered in general nature section

Section 2: Their life (up to 40 mins)

Would you like a short break?

Now, I would like you to <u>tell me about yourself, your life and how that relates to your relationship with nature</u>. We will be using your timeline to help with this conversation. If they have not shared a timeline, tell them that you will be doing this now and ask them how they would prefer to do this – together or you as an interviewee. The questions below will help you to do this with them.

If they have mentioned something in the timeline already, try to prompt them relevant questions about this instead of asking a question they have already answered, e.g. 'you said you won a swimming competition, do you still swim? Do you have any other hobbies?'

1. **Could you talk me through your timeline** (if they've done one – if not, do this with them now using previous instructions).

The following questions are to elicit detail and depth of understanding from what they have described – feel free to adapt and respond to the direction the interviewee takes the conversation, but try and cover as many aspects as possible.

Only ask following questions if not covered in Q1 – or probe for more detail.

2. Where were you born? Prompts: How long did they live there? What was it like?

3. Where do you live now, and what is it like?

4. Have you lived elsewhere other than PLACE OF BIRTH and WHERE THEY LIVE NOW?
5. Can you tell me a bit about your childhood? Prompts: What were your hobbies? Did you spend much time outside? Did you enjoy school? What were your favourite subjects? Who did you spend time with?
6. **And could you say a bit about whether you spent time in nature growing up?** If not already mentioned. Prompt: Where did you go? With whom? What did you do there?
7. What is it like living in XXXXXX? Prompt: Is it a good community? Do you socialise with neighbours, participate in community activities, have opinions about developments in the area?
8. Occupation
    a. If stated they are employed – What is your occupation?
    b. If stated retired – Before retirement, what was your occupation?
    c. If stated unemployed – What occupation or training have you had in the past?
    d. If student – What are you studying? For what qualification?
    e. If other or nothing stated – Can you describe your average week please?
9. Can you describe your average week please? Unless 8e already
10. Do you have any hobbies or interests?
11. Are you religious or spiritual? prompt: do they practice? Are they happy to share which religion or belief system?
12. Evidence shows that who you are as a person, your life experiences and your values, affect how you experience the natural environment. So, in this regard, I would like to ask: are you content with your current situation? For example, what you do, the things you have, the people in your life, your health? If they appear uncomfortable or pause – do remind them that they can request to skip any question
13. Do you spend time in nature with family or friends, or have you in the past? Include asking about pets as family (may have mentioned dog walking in previous section). If they say no, but they do mention family, you could enquire as to what type of activities or places they visit with family/friends.
14. **What do you value most in your life?** Can give multiple answers
15. **Have there been any particularly transformative experiences in your life which you would like to share with me?** Prompt if not come up - Any significant events or periods of time which have affected or defined your relationship with nature or trees/woodlands specifically?
16. **Do you think your relationship with nature has changed in any way throughout your life?** Prompt about trees/woodland in particular, if appropriate

End of interview

- Thank the respondent. Do they have any questions?
- If they created the timeline during the interview on paper or did not send a copy in advance – ask if they would mind sharing a photo with you via email or phone or posting the original.
- Summarise what the next two waves will entail:
    - For the next interview we will visit NAME OF LOCAL PLANTING SITE together. You will take me on one of your regular or favourite walks (or other e.g. bike rides) and we will discuss the NAME OF LOCAL PLANTING SITE and I will find out a bit more about your visits to it and your experiences of it
    - explain the 3rd interview is somewhat dependent on what we learn from the first 2 but will be online/on the phone again

- Try to schedule in the next two interviews with the respondent – explain the dates can be moved if needed. Have a list of possible dates ready
- Discuss how they would like you to feed back to them – do they want a copy of their transcript? Do they want regular research updates? How would they prefer for you to stay in touch? WhatsApp, emails? Do they want updates from the partner organisation (MV or NF) (not about the research)?
- If they raised anything specific about the sites – do they want us to feed this back to the partner org or for us to provide them with contact details for the partner org?

Key references:

Theoretical framework
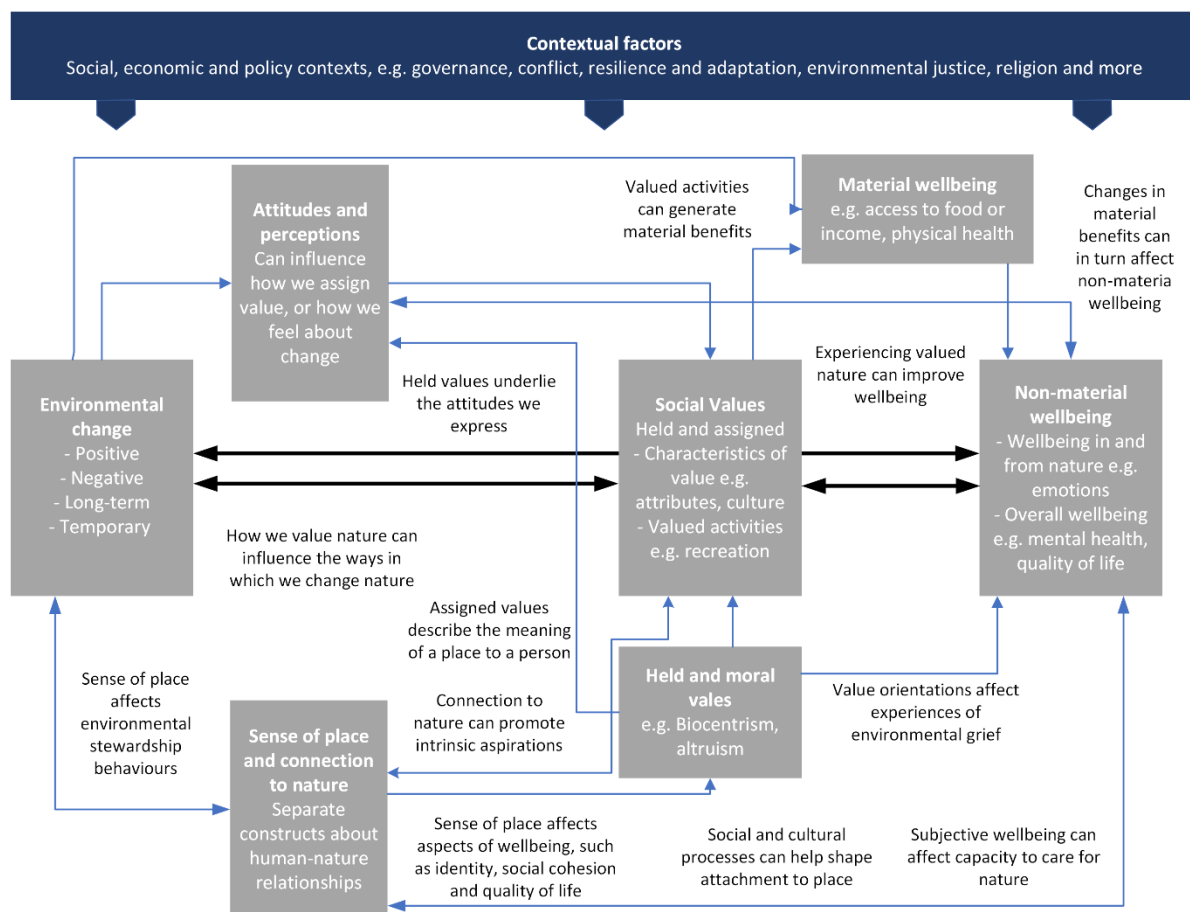
Wave 2 interview schedule

Template copy

Objective - a prospective look at the participants' life course and how it relates to the anticipated role of the local new planting site into the future. Informed by Wave 1.

    a. Drew on data from tables (1 & 2 – see analysis approach) and based on analysis of Wave 1 transcripts (coded using theoretical framework and new codes identified inductively) – table 1 by case and table 2 starts to draw out important and common themes

    b. Drew on pen portraits of each case

    c. Will draw on management vision for each site, as supplied by land owner (may include discussion as well as document analysis)

    d. Discussed points a and b as a team – case by case until we reached data saturation

    e. Then tailor each schedule to their participant – emphasizing themes which are congruent with their knowledge of the participant and which they noted down as areas to explore in their pen portraits, also where knowledge from Wave 1 can be woven in to Wave 2 questions (e.g. as reference points, to build on the narrative)

From 'QL analysis approach': "This includes questions about how they think the site will change and how this might affect how they use it and feel about it, any anticipated changes to their sense of place etc. (referring back to wave 2 responses but also to project partner management plans and aspirations). It could also explore how their environmental attitudes and perceptions have changed over the time they have spent visiting the site (or any other relevant perceptions such as in relation to their local community) as well as any changes in their personal behaviours (again, with the option of exploring in more depth anything brought up in previous waves)."

- New woodlands focus more than 1ˢᵗ interview
- How to include the life history elements back into the interview – e.g. formative events, values, who involved in futures
- In analysis we will be able to situate future thoughts planting in wider context informed by what they think is important – development/sense of place, wider environmental concerns, family

Introductory text – Adapt from Wave 1 and include information on the objectives of this interview.

Thank you very much for agreeing to take part in the second interview of this study.

As a reminder, since it has been a little while since our initial interview, the aim of this project is to better understand the potential social effects of tree planting and woodland creation. In our first interview, we took a biographical approach which allowed us to learn more about you as a person, your experiences and your values, and how these factors may have influenced how you have experienced recent environmental changes in the local area.

For this second interview, we'd like to take a prospective view of your life. This will involve looking to the future to think through how the recently planted woodlands you visit may change in the future, and how this may influence how you feel about them or how you use them. We will draw on discussions had in the initial interview to help guide some areas of discussion today. A reminder that we are particularly interested in the benefits or other impacts of new planting – so if you can take a moment to visualise the new planting on the site/s we will be discussing today – which is/are XXXX.

As in the first interview, we have allocated 90 minutes for today's interview, but it may take less time.

In the first section we will discuss how you think the woodlands may change in the future, including your potential hopes and fears for the woodlands. In the second section, we will talk a bit about the landowners plans for future management of the woodlands, and how you feel about these. In the final section we will discuss how you anticipate your life will be in the future, and how the new woodlands may or may not feature.

As you will be aware, after today we will have one final interview to complete. This is where I will come to walk around your local woodland with you and this will be in Aug/Sept. After the third interview you will receive the voucher, this is because we can only use your data if you have participated in all three interviews. We can talk about the third interview more at the end.

Please remember you are free to decline to answer any questions or ask for more explanation at any point.

As indicated in the consent form you completed at the beginning of the study, I would like to record this interview to be used for transcription. Is it still ok for me to record this interview?

Do you have any questions before we begin?

I will now start recording.

Section 1: What do they envisage happening to woodland / hope or fear may happen – and how will link back to them and those that matter to them – circle back to benefits, practices

Be specific about the woodland/new planting you are discussing – show map if needed. Be clear that you are talking about new planting that will develop over time.

In this section we are working with the participants to explore their ideas, hope and concerns about the future of the woodland. This section lends itself well to reflecting back on wave 1 and personalising some of the questions

1. Do you have any knowledge about what future plans there are for the site?
2. If yes, probe around vegetation/wildlife management, volunteering, access and infrastructure, visitor engagement/numbers, any expansion or other planting plans.
   a. How do they know this?
   b. Where they don't have knowledge ask them what they would like to happen
3. If no, is there anything they hope is planned?
4. All, ask them if they can describe how they expect the following things to change (if at all) and ask them to describe how they expect to experience this change and pace of change
   a. Visually – *prompt for light/shade, visual diversity/uniformity, openness/closedness, landscapes/viewscapes, flora/fauna/biodiversity? Prompt to think about over a year/seasonally. How do they feel about this?*
   b. How about their other senses – how do they envision it smelling, feeling (e.g. shady/colder, less exposed, more/less of an escape, more or less safe, and hearing (more or less peaceful). Prompt to think about over a year/seasonally. How do they feel about this?
   c. In relation to their connection to or observations of nature? Prompt to think about over a year/seasonally. Expect any new habitats to form/be lost or species to arrive or decline? More or less 'wild'/managed? More or less biodiversity?

       d. If they mentioned spirituality in any way – ask them about this and how they expect this to change, if at all, and how they feel about this.

       e. Is there anything else they want to talk about regarding what benefits the site provides for them which may change over time, or which they hope stays the same? e.g. recovery from trauma chance for volunteering, inspiration for art/place to do art, site for business, feelings of belonging, feelings of protection, for meeting new people/being sociable, for building memories with others, for dog walking, specific activities, tree pests and diseases (some mentioned in wave 1) – you could share these prompts as a word cloud on screen and see if any prompt further discussion? Tailor this section to make sure you pick up on any activities or benefits they specifically mentioned in wave 1

5. How do you think these anticipated changes may affect the benefits you receive from the woodland? *Prompt – refer back to wave 1 (mental health, physical health, other affect), change/no change?*

6. All, ask them if they expect to see more or less change in the woodlands (compared to what they have seen/experienced so far) overall over the next X time period. *Prompt – this is about pace of change*

7. Do they expect the woods to change the local area in the future – the place but also the people? *Prompts – how people behave towards the site but also in relation to other green spaces, such as gardens. If it might bring the community together. Whether wildlife/nature might 'leak' into surrounding area?*

8. Are there any planned changes in the local area, outside of the woodlands, they know about or that might happen, which they think will change the woodlands? *Prompt – housing or other building or transport development, anything else?*

9. All, ask them whether they would like future management plans to be communicated and how?

10. All, how do they think their feelings of responsibility /protection towards the site may change over time?

11. All, do they have any fears or concerns for the future of the woodlands? How does talking about this make them feel? *[solastalgia and disempowerment, demotivation themes]*

12. If time, do they have any thoughts they want to share about future plans for the wider project? *For example, the wider vision for the visitor centre, acquisition/management of more land for planting, public engagement etc.* What about impact of tree planting targets/loss on the future of the region or country more generally

Section 2 – introducing the land owners'/managers' management vision and their reactions to it

In this section you are introducing landowner/manager plans for the site. So, these will take the form of a statement about a planned management activity (e.g. thinning, more paths, active management of a disease or pest) or ambition (e.g. double the number of people on site, manage in a certain way for X species) and then you are obtaining the participant's response to that statement. You don't have to cover each of the elements below, but they are prompts – especially if you are lacking in specifics and want to suggest some different management activities (e.g. most sites will be thinned after a period of time, pests and diseases will be actively managed, infrastructure will be maintained). You need to be clear where this is stated within a management plan (and that these are often reviewed) and where you have hypothesized from broader documents or knowledge of forest management.

- o Resilience – climate change, biodiversity, tree pests and diseases. If you know there has been a lot of species planted which has a new associated pest or disease you could ask the land manager about specific management or suggest to the participant how this. You could hypothesize that some species may be less suited to a changing climate and some may not survive.
- o Any plans to expand the woodland/new planting
- o Income generation – free to use, timber
- o Anticipation of visitor engagement any ambitions around numbers engaged and type of engagement?
- o Future plans access more paths, more made paths, management of access e.g. mowing
- o Volunteers future plans – continue to support groups, new groups, new roles?
- o Activities
- o Future pressures – resident numbers, industry, road building,
- o BNG, carbon credits, specific tree planting/cover ambitions – a prompt in case a manager says they are looking for an income stream through engagement – you could ask them about implications e.g. managing for a certain type of habitat, adding ponds in, management relating to adhering to the Woodland Carbon Code, etc.
- o Monitoring continuation of monitoring, new monitoring maybe involving public, communication of findings
- o Tenure and post current agreement – might be an unknown but could mention

Section 3: prospective view on their life ("life horizon scan") and how the new planting site may feature in it.

I am going to ask you think about your future. We can focus on one timescale or move between different time scales. There are a number of themes I will use to prompt the conversation. As always, you can ask to move on to a different question. You can also introduce themes which you think are important to cover. I will also place a focus of my questioning on how this possible future may involve the new planting site as it develops.

1. Think about a time or several points in time in the future - do you think the amount of time available for you to visit the new planting/woodland or otherwise engage with it (e.g. through volunteering) might change? Or ask about time as a result of discussing the life events – but change in time available and anticipated engagement may not be related to life 'events' obviously.
   a. If yes, how (more or less, why)? Are changing priorities a factor?
   b. What effect do you think this will have on you?
   c. If they mention moving away from the study site – ask if they can envisage engaging with local woodlands, if any are available. You can use this opportunity to ask about whether (new) woodlands are nearby would be a consideration in where they move to.
2. Thinking about the future, are there any events you anticipate happening in your life? You can say these aloud or sketch them out on a piece of paper if you prefer.
   a. Please talk me through it and specify the units of time – *ask about how this might affect visiting site and any anticipated changes to experience/benefits obtained.*

We are now going to talk through specific themes, where they haven't come up already.

3. Please think about important beings in your life – may be family, friends, pets, other volunteers/community members or others *(here you can tailor it to continue on conversations about those who are important in their lives).*
    a. Over time do you think there will be any change regarding who you visit the woodlands with or talk with about the woodlands?
    b. What about the reasons you visit with them or the activities you might do together/joint interests – do you think they will stay the same? *There may be specific questions for couples re their shared experiences.*

4. If access hasn't been mentioned – could ask about that. *Prompts - E.g. access in terms of transport, mobility (links to health).*

5. Health – can you tell me how you expect your physical and mental health to change over time and if you think this will affect your experience of the local woodlands? *For example, you might consider you'd have more or less need to spend time in the woodlands, you might think a deterioration in a health condition over time could prevent you from spending as much time in the woodlands, it may be that a health condition reduces mobility or interacts with something like the weather to affect when you can visit, or that you anticipate your health to improve or stay the same etc.*

    If not talked about either physical or mental health, prompt.

    Specifics mentioned: continued 'recovery', need to be able to continue disengaging mind – 'soft fascination' (Attn Rest Th), restorative

    You may want to consider prompting about 'healing' as well as health

6. What about your personal safety or feelings of security or vulnerability – do you think they might change over time and as the site changes and you age

7. Do you think you will need anything different from the woodlands over time – <mark>adapt this question for specific things that came up in wave 1</mark> for example, in relation to work (break from home working, or needed for a business), in relation to any ambitions (e.g. fitness, or getting a dog), your activities or hobbies?

8. Do you think you will learn more about the site and what it contains over time? This could be formal learning (such as identifying species) or more informal 'noticing' of change or just noticing more (like 'layers') and more detail. It could also involve learning about yourself or others.
    a. *E.g. familiarity, new walks achievement*
    b. You could probe here about whether this might be linked to the site getting more 'complex' which relates to other questions on diversity.

9. Do you have any expectations with regard to how your engagement with or connection to nature might change over time on the site? Is there anything you are particularly looking forward to?

10. Do you think the changes to the woodlands over time will influence the way you feel about the place you live and your bond to it? Prompt – think about how it contributes to the character of your town/village *Especially relevant where they have previously indicated that the woodland has affected this. It may be that they think its creation has impacted sense of place but this is a 'one off'. Look out for words such as pride, community, home, local.*

Wave 3 interview schedule

Keep the standardised template, but personalise

In advance you have asked them to think of a regular walk or one that they particularly enjoy. If they ask for guidance you could suggest that the walk encompasses both the new planting and older planting (should this be relevant and also reflect the type of walk they undertake). Don't be specific on timings but 20-60 mins ideal.

For this wave leave more room for people to bring up conversation points naturally. Probe into previous discussions
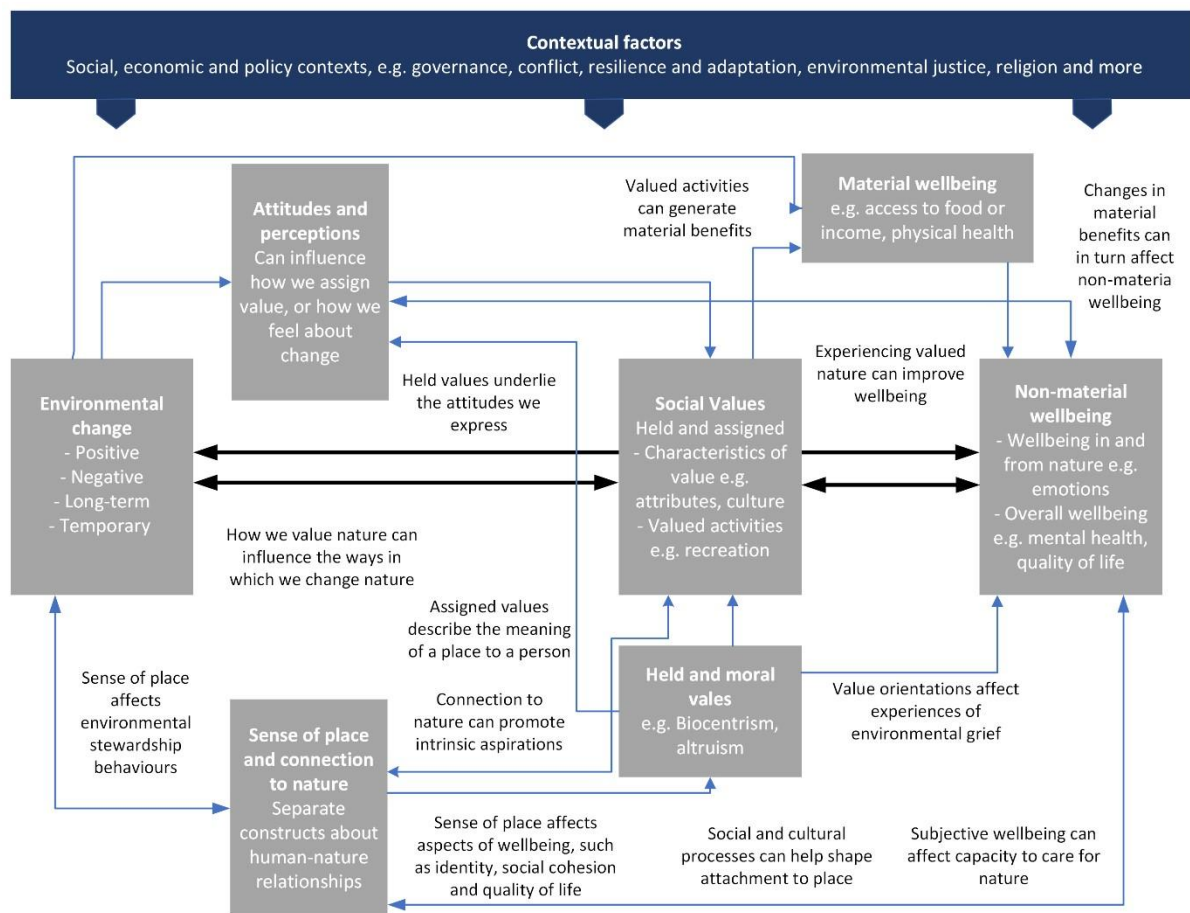
The third interview is designed to identify the attributes of the newly planted site that the participant finds impactful. These discussions can encompass relational features such as surrounding mature woodlands, infrastructure, or open spaces for example. It's also important to explore their motivations for visiting, including what the site affords them, as well as any environmental changes they've observed.

Please note that waves 1 and 2 have already gathered evidence on a range of broader benefits/disbenefits associated with the site, including future management needs or desires for example. If you notice significant repetition from earlier waves, gently remind the participant that these thoughts have been captured in previous interviews.

This interview is an opportunity to focus on the unique attributes of the new planting as they are experienced in the present day. If the conversation drifts too far from this focus, feel free to use the suggested prompts to steer it back towards our key research questions, which are listed below and can be shared with the participant during the introduction.

Try to maintain an open style of interviewing, encouraging the participant to share their thoughts freely and minimising interruptions.

Introduction text

Thank you very much for agreeing to take part in this third and final interview of our study.

Since it has been a little while since our last conversation, I'd like to briefly remind you of the project's aim: we're exploring the potential social effects of newly planted woodlands on local communities.

To recap, here are the key research questions we're focusing on:

1. What do local community members who have visited the site think about the newly planted and expanded woodland, and how do they feel about how this intervention has come about?
2. What impact has this intervention had on local community members who visit or engage with the site?
3. What lessons can we learn from these experiences to improve future interventions, ensuring they maximise benefits, enhance access and engagement, and minimise negative impacts?

In our first interview, we focused on your background – learning more about you as a person, your past experiences, and values – and how these might have influenced your experienced with recent environmental changes in the area.

In our second interview, we discussed your perspectives on the future – how you think the newly planted woodlands, like the one we're visiting today, might evolve, and how this could affect your feelings towards and engagement with the site.

Today's interview is an opportunity to capture your current thoughts, feelings, and experiences of the newly planted woodland. As we walk through the site, I encourage you to speak freely about what you notice and value and share your views on how this site impacts on your life.

Please remember you are free to skip any questions or ask for clarification at any time.

As we mentioned in the consent form you completed at the start of the study, we would like to record this interview for transcription purposes. Is it still ok for me to record our conversation today?

Do you have any questions before we begin?

Okay, we'll set up the voice recorder/start recording.

First question is an invitation to them to narrate the walk: "Please tell me about this walk"

> *As you go through you may choose to add a prompt question – but try not to interrupt the participant's flow.* ***remember the focus on new planting****

General prompt question ideas:

- How often do you visit this site / go on this walk? How often do you come here?
- Do you tend to visit alone or with others?
- Why did you choose this walk compared to others / what do you value about it? Could specifically ask about choosing to walk in the new planting areas/younger woodland over walking in more established woodland. Could include asking for comparisons and motivations for visiting one over the other e.g. expectations from visiting the different sites (e.g. they might go to older woodland when wetter weather).
- Is there anything about walking in the younger woodland you are not so keen on? Why?
- Has your use of the site changed over time? (could be in terms of what they do there, what they get from it, etc.) Or a bit more specific asking if they can think back to early days of taking the walk, prompting to remember tree heights and different experiences
- What draws you to this walk/site? What do you value about this walk/site? Have the new planting areas influenced how often or why visit this site?
- How do you feel while doing this walk? Could ask at different points as transition between different ages of planting.
- Stewardship and ownership – something around that
- Something on variety (sensory, landscape, biodiversity, etc)
- Expectations for walk outcome e.g. expect to have clear head at the end / What impact do they expect/experience from the visit? Come back to what benefits obtained at the end
- Opportunity to reflect on specific points the participant draws your attention to and probe related values e.g. "why do you value this view?"
- As you move between different ages of planting (or other notable changes) then probe values relating to both e.g. sensory and other relevant 'through lines' – to try and tease out whether and how **new planting** is valued differently from established/older planting (and other natural areas)

- Personalised prompts – look at your analysis tables and pen portraits and consider preparing questions on key themes or 'through lines' (see below for ideas)

At the end find somewhere comfortable to sit and reflect on any areas not covered.

Final question – <mark>"If you were to advise someone who was creating new woodland for a local community, what would you say to them?"</mark>

Through lines from waves 1 and 2 –

- *Trees bringing a **sense of protection** from development (built infrastructure)*
- ***Hope** for the future – preservation of spaces to enjoy nature, will always be a bit of green space.*
- *House prices – **material benefits** from being close to green space*
- ***Variety** of / heterogeneity of landscape, wildlife, biodiversity/species, seasons, exploration – this can be tied to the new planting (although doesn't have to be), heights of trees, emerging from closed spaces into open, sensory experiences, feelings of safety/enclosure*
- ***Sensory** – what is different about new planting – less multi dimensional e.g. bird song. Drier. Not quite a forest.*
- ***Anticipation** of changes. E.g. people anticipating seasonal change but also ageing of site.*
- ***Ageing alongside the trees** - opportunity to engage local community e.g. through planting, buy in, being there at the birth, seeing rapid change, people feel invested. Two parts – appreciate trees more and also more feelings of protection/stewardship (which may or not translate into behaviours). Could be community growth/developing sense of place. Links to hope – future generations. Ownership.*
- ***Shared (community) experience of change** – parcel of land, growth of trees, activities – relational values*
- ***Proximity/local** nature of the sites – convenience, but also links to shared ownership/sense of place. These aren't 'destination' sites but does this mean there is more **ownership/stewardship** from local community?*
- ***Management** – particularly around harvesting*

Reminder of the relevant RQs

RQ1 What do local community members who have visited the site think about the intervention (new planting and expansion of woodland*) and how it has come about?

RQ3 What impact/s* has the intervention had on local community members who visit/engage with the site?

RQ6 What lessons can we take from the above to inform such interventions to help them improve provision of benefits and to maximise access/engagement with such sites (where this is an aim) and minimise negative impacts (on site and visitor)?

Codebook for TWF-16 Qualitative Analysis

We can use this document to keep track of nodes for the TWF-16 analysis and ensure we are more consistent with the references we are coding under each node in NVivo. See https://dovetail.com/research/qualitative-research-codebook/ for guidance on developing a codebook.

High-level code	Sub-codes	Description	Notes
About the person	Family	For anything where family are mentioned.	
	Hobbies	Activities participants mention they do in their spare time, including volunteering activities.	Volunteering
	Important life events	Key life events that help provide background info about the participant.	Retirement, wedding
	Local community		Reputation, sense of community, interactions with neighbours
	Occupation	Any references to their work (former or present) or their retirement.	Work hours impacting engagement with woodlands
	Other		
	Relationships (non-familial)	Reference to relationships with people outside their family, e.g. friends, neighbours	
	Religion	Anytime religion or spirituality is mentioned.	
Access/engagement	Barriers to (physical or not)	Any factors which might prevent or reduce access to or engagement with nature/woodlands.	
	Enablers to (physical or not)	Anything that might encourage access to or engagement with nature/woodlands.	
	Other factors	Where engagement is spoken about without explicit focus on a barrier or enabler	
Assigned value. How/why they value that place.	Attributes	Description of the characteristics of a place which people value or dislike. Often labelled aesthetic value, but this misses other characteristics influencing perceptions of a place such as naturalness, wildness, sounds, other sensory experiences and how a place feels.	

	Subcode of Attributes: Managed_Unmanaged	Observations on or how nature is managed, i.e. tidiness ideals, chaotic nature, comparisons between managed vs unmanaged areas, nature taking its own course, or the consequence of management	
	Subcode of Attributes: Sensory	Anything to do with senses	
	Subcode of Attributes: Variety	A variety of attributes/features	
	Subcode of Attributes: Environmental quality	Reference to impacts of planting on perceived quality of the environment	
	Culture, tradition and history	Values relating to a demographic's culture and traditional practices and their connections with their heritage and history. Many papers mention impacts on culture, heritage and/or tradition in the same turn, usually without making a distinction between them. They have therefore also been combined in this review. Places, foods, objects or species of cultural importance and cultural connections, identity and traditional practices. For example, traditional food occupations like farming or practices such as cultivation are culturally important. The ability to access and share cultural places and strengthen cultural links. Infrastructure of cultural importance. Wider cultural representation linked to the environment.	
	Education, learning and knowledge	Knowledge of the environment including traditional ecological knowledge. Wider opportunities for general learning and education. Knowledge generation among certain groups or existing ecological knowledge. Both environmental and general learning and education, based on access to nature and a household means	
	Escape	Woodlands offer space to get away (physically or mentally).	
	Intrinsic	Beliefs that a place has value based on its innate right to exist and opportunities for the future.	
	Extrinsic	Opposite of above: Nature providing or producing something that is beneficial to other	

	Recreation	Value gained from using the space for recreation. This category also provides direct wellbeing benefits. Emotional impacts from recreation are coded under affect and mental health.	
	Science	Scientific values such as scientific understandings of an ecosystem, or opportunities for scientific activities. Value for research and generation of scientific knowledge.	
	Spiritual	Spiritual value attributed to a place, or connections felt towards that place. Rarely defined. Can be the symbolic value of something, inspiration, a religious value, ideology or spiritual connection. Can also refer to practices.	
	Tourism	The value gained by tourists and by locals who benefit from the presence of tourists.	
Attitudes to and perceptions of tree planting		General code for any reference to attitudes towards/perceptions of tree planting generally.	
Core values	Anthropocentric	Believing that nature should be preserved and protected because of its utility value for humans.	
	Biospheric	Believing that nature should be preserved and protected because of its inherent value regardless of its utility for humans.	
	Egocentric	Value and concerns for self-wellbeing.	
Engagement in pro-environmental behaviours	Engaging in PEBs themselves	Where participants mention engagement in specific pro-environmental behaviours.	For behaviours only, environmental attitudes is covered by connection to nature
	Engaging others	Where the participant encourages others to engage in PEB.	
	Others engaging in PEBs	Where participants give examples of others behaving pro-environmentally.	
	Others' problematic behaviours	Where the participant perceives others' behaviour as problematic.	
The future	Fears for the planting	Where participants demonstrate concerns about the new tree planting in the future. This could be concerns around management, development, or anything else.	

Appendix 7 Qualitative analysis code book

	Desires or needs from future management or site	How they would like the site to be managed in the future, or how they would like to see the site change.	Added wave 2
	Expectations for new woodland	How they expect the woodlands will change in the future.	Added wave 2
	Subcode of Expectations for new woodland: Future management	Increased population, footfall, pressure from visitation...	Added wave 2
	Fears for the general greenspace area	Where participants demonstrate concerns about the general greenspace in the area.	
	Fears for the planting	Concerns around the planting itself	
	Feelings about future management (Subcodes: Negative, Neutral, Positive, Trust)	How participants feel about the management plans mentioned. Trust is for reference to having trust in the landowner/manager	Added wave 2
	Future Development	As an addition to observed development, focusing on anticipated future development changes to woodland/surrounding area	Added wave 2
	Hope for the future	Any indications of hope about the future of nature/woodlands, particularly in relation to their future selves and future generations.	
	Trees bring a sense of protection	Where participants feel the trees protect them from threat, particularly development.	
Locality and proximity		For references to local or nearby nature, or where lack of local nature is mentioned.	
	Feeling Fortunate	About locality	
Mature woodlands		Specific points on mature woodlands or the features of maturity	Added wave 2
New woodlands		Anytime the new woodlands/planting are mentioned. Will help draw out references specifically related to the case study sites.	
	Feelings about current management	Where existing/evidenced management of a new woodland is discussed	Added wave 2

	Noticing management activities	Where they say they have seen management activities taking place, but don't really give an opinion on it	Added wave 2
Observed changes to the environment (landscape aesthetic)	Development	Any reference to noticing development in the local area.	
	Other environmental changes	Any other observed changes to the landscape or environment.	
	Tree planting		
Relationship to nature	Childhood nature experiences	Any time a participant mentions engaging (or not) with nature during their childhood/adolescence.	
	Curiosity and exploration	Where there is reference to a want or ability to learn more about or physically explore nature/woodlands.	
	Habitat preferences	Anytime it is implied they like or dislike certain environments, particularly in relations to others.	
	Important nature events	For past events in nature that the participant identifies as significant to their life.	
	Others' connection to nature	References to others relationships with nature, including their attitudes towards it.	
	Relationship with woodlands	References that indicate the participants' attitudes towards, or behaviours/experiences in woodlands.	
	Self-connection to nature	A trait of individuals that enables them to feel emotionally connected to the natural world (Mayer & Frantz, 2004).	
	Sense of stewardship, ownership or responsibility	Reference to feeling that they should look after nature/woodlands or that they feel it is 'theirs'.	
	Time and activities in nature	Any reference to activities carried out in nature or the amount of time spent in nature.	
	Subcode of Time and activities in nature: Who with	Who they spend their time with	

Sense of place		A person's connection to a place and its contribution to overall wellbeing. While this is often approached as a value or a separate construct, sense of place can have a role in facilitating wellbeing benefits or losses. Sometimes includes place attachment, identity and dependence either independently or in combination. Also expressed as a sense of belonging, changes in familiar place, place-based solace, satisfaction with one's neighbourhood or home place. Place identity?	
Wellbeing	Affect	The feelings and emotions people feel when observing or thinking about environmental changes or other changes to their lives stemming from environmental changes. Positive emotions range from excitement and enjoyment and experiencing tranquillity to a sense of security and hope. There is a wider description of negative affect impacts: fear, solastalgia, sense of loss, concern, insecurity anger, disappointment, annoyance, despair, frustration, helplessness and more.	
	Community wellbeing	Changes in community cohesion, capitals and function directly or indirectly caused by changes to the environment. This category is linked with the social wellbeing category.	
	Identity	Factors influencing a person's sense of identity. This is linked with community or place identities, and therefore impacts on a place can also impact on a person's identity	
	Material	Sufficiency of material possessions.	
	Mental health	Covers a spectrum of mental wellbeing to mental illnesses. Can be a direct consequence from changes in a person's environment and indirect changes to mental health due to environmental changes affecting lifestyles. Changes can lead to psychological distress such as posttraumatic stress disorder, stress, trauma, anxiety and depression. Positive changes include therapeutic experiences and healing.	

	Personal safety	Avoidance of premature death (and ensuing loss of wellbeing).	
	Physical health	Condition of your body. References to exercise/physical activity.	
	Quality of life	This concept includes a person's subjective wellbeing, or their perception of their position in life. Mentions of general quality of life as well as lifestyle: hardship, discomfort, disruption, substance abuse, suicide ideation, sense of purpose, fulfilment, aspiration, self-determination and freedom of choice	
	Social wellbeing	Changes in the environment directly or indirectly influencing social interactions, connections and relationships. This category overlaps with values, as a place can have increased or decreased value for social interactions.	
Unknown		Where we are unsure about where to code a reference, or if we think there is potential for an additional node (in which case add an annotation).	

Forest Research

Interim report: TWF-16 Mapping the social benefits of woodland creation and expansion: Proof-of-concept for setting up a longitudinal network

Clare Hall and Beth Brockett

Short summary report after Wave 1 (pilot) questionnaire survey

June 2024

1.Introduction

Please note that this report was edited in February 2025 for final reporting purposes. The original interim report was produced in June 2024 following completion of Wave 1 of the quantitative part of this research project to inform discussion between researchers and funders about subsequent phases of the research. It reports on methods, results and learning from Wave 1 of the survey questionnaire. Please note that the primary intention for Wave 1 was to pilot the approach, design, delivery and analysis and subsequently inform the development of the Wave 2 survey questionnaire (quantitative), as well as subsequent waves of qualitative interviews as part of the qualitative longitudinal part of the research project. This learning is reported on within the main report and the methods report.

2.Evidence needs

Given increased levels of investment in tree planting in England, there is a need to address the following:

- Lack of evidence on the benefits local communities obtain from new planting/young woodlands (more evidence on mature/mixed age woodlands)

- Lack of evidence on how these benefits change over time

3.Objectives

The objectives of this programme of work are to:

1. Identify and develop connections with forest/woodland sites and communities to study over time

2. Explore attitudes, motivations, actions, barriers and benefits linked to new woodland creation and expansion (new planting) for diverse communities.

3. Develop and test a proof-of-concept* for longitudinal research to study how attitudes, motivations, actions, barriers and benefits for communities local to new planting change over time

*proof-of-concept refers to establishing through testing whether such longitudinal research is feasible, what it would contribute, and how it could be achieved

4.Research Questions (RQs)

There are six research questions designed to address the objectives. RQs 1-4, as well as forming the baseline for any future longitudinal research at specified sites, will provide a 'snapshot' to ensure better understanding of how the intervention (new planting/expansion) has affected the local community at a point in time. RQ5 is about testing of methods and will be addressed by the lessons learned from Waves 1 & 2 delivery. RQ6 is less relevant for this report.

• RQ1 What do local community members who have visited the site think about the intervention (new planting and expansion of woodland) and how it has come about?

• RQ2 What do local community members who have not visited the site (but are aware of the intervention) think about it and how it has come about?

• RQ3 What impacts has the intervention had on local community members who visit/engage with the site?

• RQ4 What impacts, if any, has the intervention had on local community members who have not visited (but are aware of the intervention)?

• RQ5 How do we best capture the above change in attitudes, motivations, actions, barriers and benefits linked to woodland creation and expansion for diverse communities over time?

• RQ6 What lessons can we take from the above to inform such interventions to help them improve provision of benefits and to maximise access/engagement with such sites (where this is an aim) and minimise negative impacts (on site and visitor)?

5. Approach

A mixed methods approach has been applied, consisting of two elements:

1.   Quantitative approach sampling at the community level – a cohort of people who live very locally to new planting – *focus of this report*

2.   Qualitative approach – using a case biography approach applied to in-depth data collection with a small number of participants (reported elsewhere)

6. Methodology and selection of sites

Key considerations

1.   With 2.5 years' funding it is challenging to undertake a longitudinal approach. Therefore, we have focused on (as per objectives and RQs):

•   Proof of concept – learning about what method/s would work for these questions and with the population of interest (hyper local to new planting)

•   Two waves of data collection where the results will also provide insight into community level benefits as a 'snapshot'

2.   How to sample and obtain a large enough sample size where our population of interest lives 15 mins walk from the new planting[1]. This is 'hyper-local' sampling, so more restrictive than usual, and therefore many of the standard approaches are not possible.

Site selection

We identified two study locations:

1. The Forest of Marston Vale (FMV) (community forest in Bedfordshire) and

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[1] Note that the aim was to target residents living within a 15 minute walk of at least one of the woodland planting sites, as per the policy aim outlined in the UK Government Environmental Improvement Plan in 2023 that everyone should live 15 minutes from green space or water in England. This proved not to be possible – that is, we could not obtain a large enough sample within this distance of the sites.

2. National Forest (NF) (multi-functional forest across Derbyshire, Leicestershire, and Staffordshire).

In discussion with the land managers, and using spatial analysis, we selected a number of sites/clusters of new planting (less than 20 years old) across areas which included a range of key demographic variables (Index of Multiple Deprivation, ethnicity, age).

We undertook a questionnaire survey (see appendix for questionnaire) using two modes of delivery:

1.   Computer-aided telephone interviewing (CATI) – utilising sub-contractors with access to telephone databases and consumer panels (GDPR compliant) we surveyed 928 participants in FMV and 573 in NF (statistical advice suggested 450 participants minimum for each location) – interviewing people who lived within the local areas. Maps 1 & 2 below show all the woodland sites included in the CATI survey.

2.   Face to face surveying at one NF location (Sence Valley) – utilising sub-contractors who sampled both on site and in the surrounding area. The number of participants was 303, with 98 of those being interviewed on site at Sence Valley and a further 205 from within the local area. This is a more costly approach. Map 3 below shows the location of Sence Valley.

Note that all three maps show the locations of respondents and their own estimation of how long it takes to walk to one of the specified planting sites. The numbers in the 'bubbles' (and the size of the bubbles) show how many participants there were at particular postcodes. The colour of the 'bubbles' (as shown in the key) represents the modal walking time from the site.

The decision to undertake two modes was due to the novel nature of the research, that one of the research questions (5) specifically focuses on methods development, and the key requirement to obtain a hyper-local sample – we wished to test the pros and cons of each approach. As requiring a hyper-local sample

places a severe constraint on the number of available households to target we did not place further sample constraints by applying quotas. We did request that both modes tried to sample equal numbers of people who had visited and not visited their local new planting site, however this did not prove possible for the CATI approach.
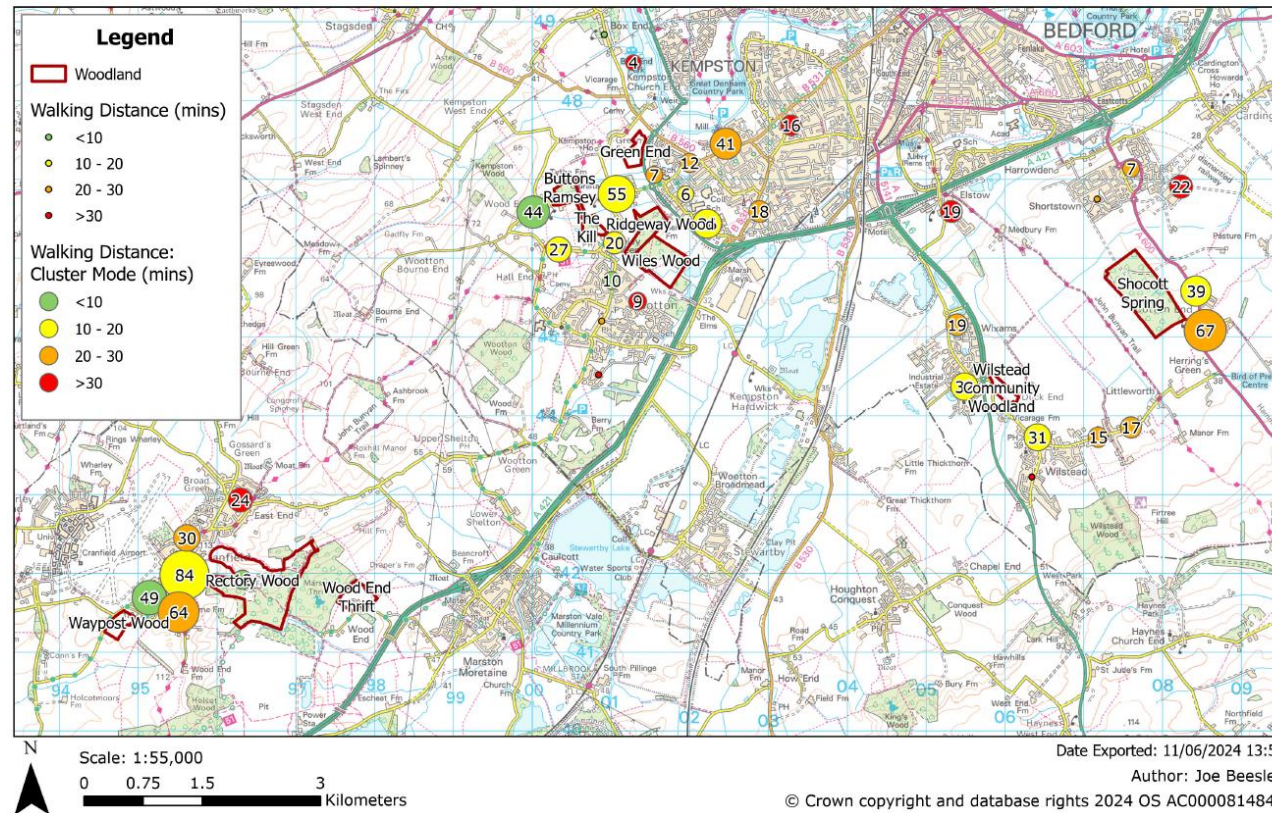
Map 1: Forest of Marston Vale woodlands showing the residential location of respondents and their own estimated walking time to the woodland.
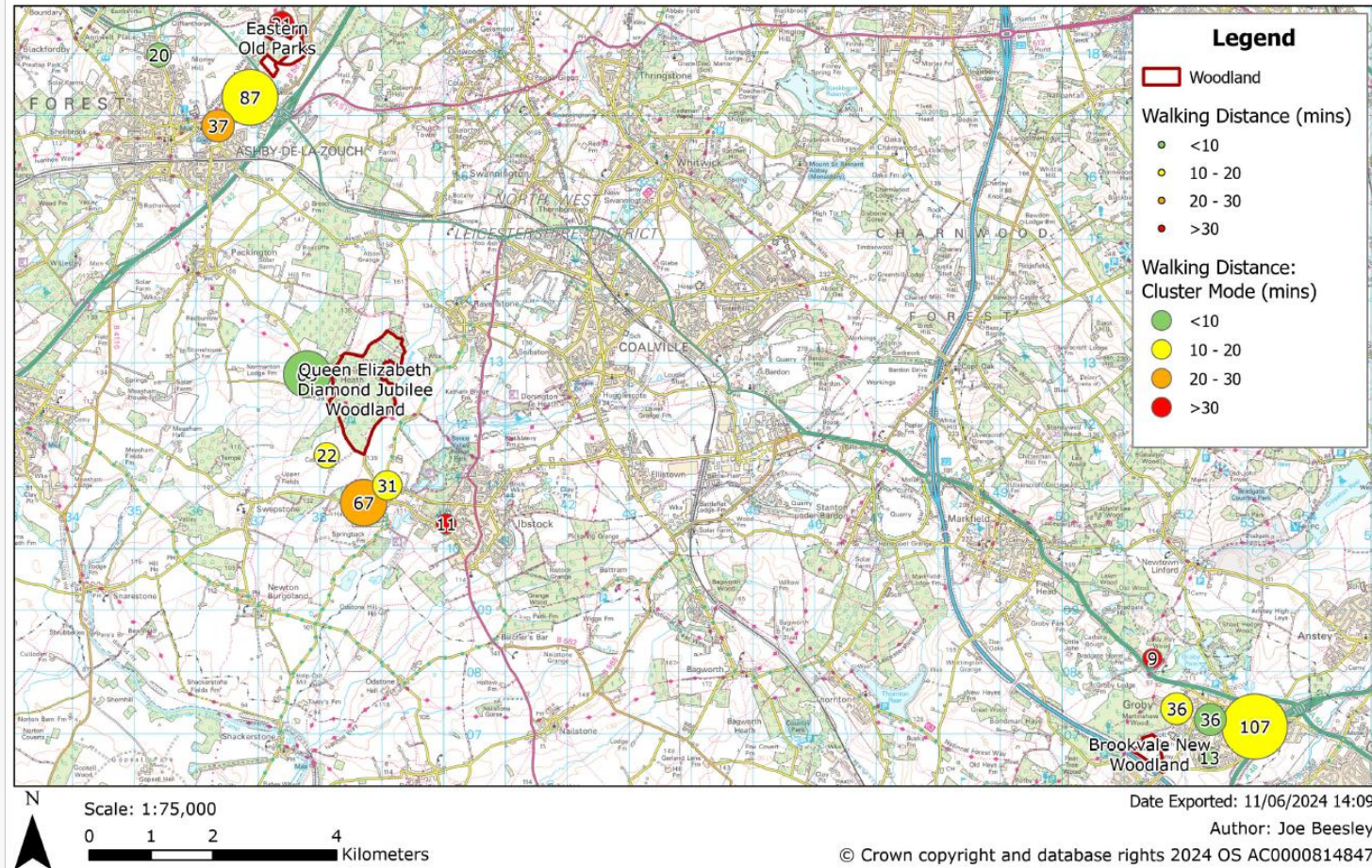
Map 2: National Forest woodlands showing the residential location of respondents and their own estimated walking time to the woodland.
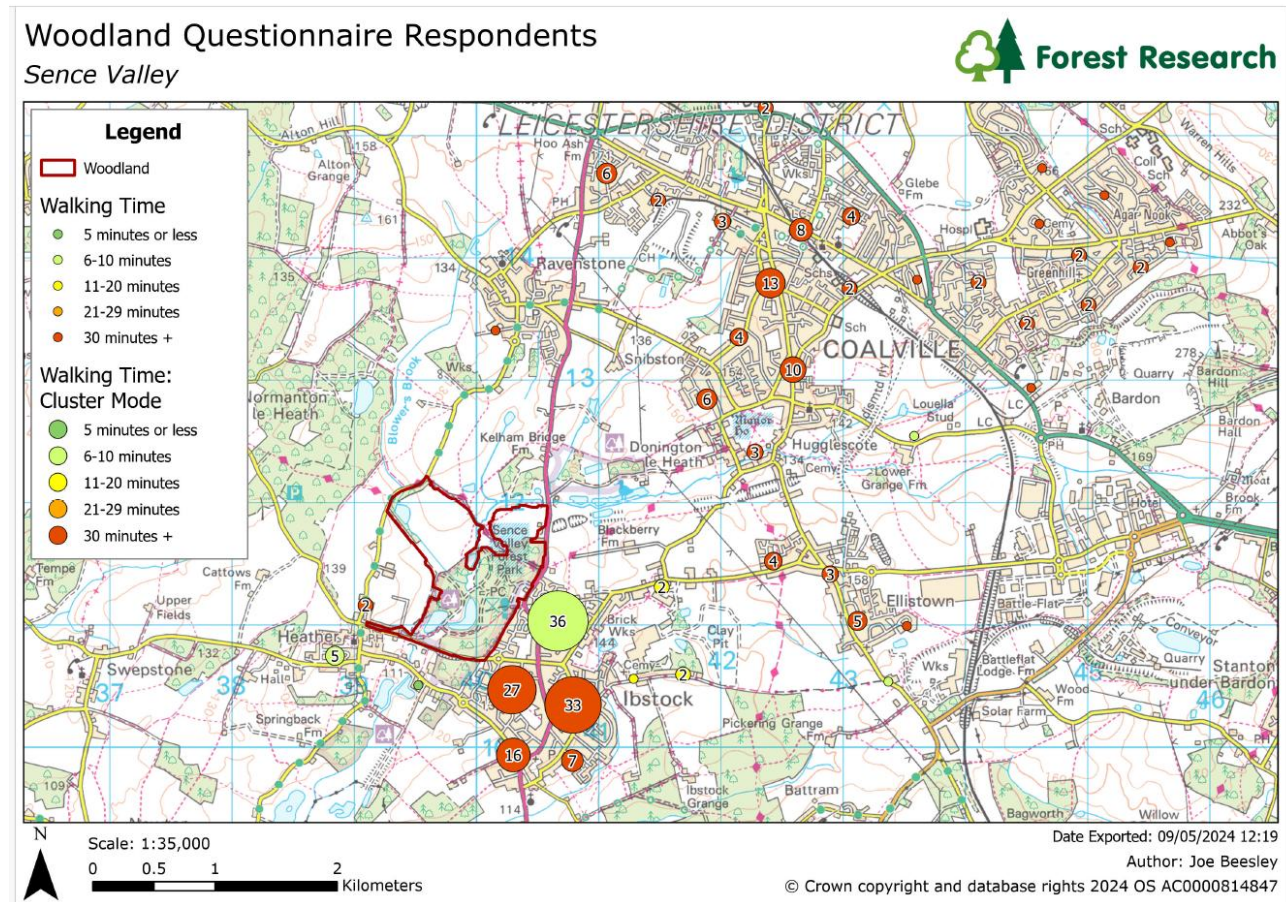
Map 3: Sence Valley woodland showing the residential location of respondents and their own estimated walking time to the woodland.

The following tables (Tables 1-3) show the sample breakdown by location and site for the CATI survey respondents.

Table 1: Respondent split between Marston Vale and the National Forest (CATI survey)

Responses	Bedfordshire (FMV)	East Midlands (NF)
Percentage of sample	62%	38%
Number	928	573

Table 2: Respondent split across the Marston Vale woodland sites (CATI survey)

Rectory Wood	Wood End Thrift	Waypost Wood	Buttons Ramsey	The Kill	Ridgeway Wood	Wiles Wood	Green End Wood	Shocott Spring Wood	Wilstead Community Woodland
6%	3%	8%	6%	5%	6%	5%	6%	9%	9%
91	45	115	83	71	97	73	89	133	131

Table 3: Respondent split across the National Forest woodland sites

Queen Elizabeth Jubilee Woodland	Eastern Old Park	Brookvale new Woodland
13%	11%	14%
197	165	211

Respondents

Figure 1 and table 4 show the age and employment status of the CATI respondents. It shows a relatively large proportion of the youngest age group, reflected in the percentage of students.
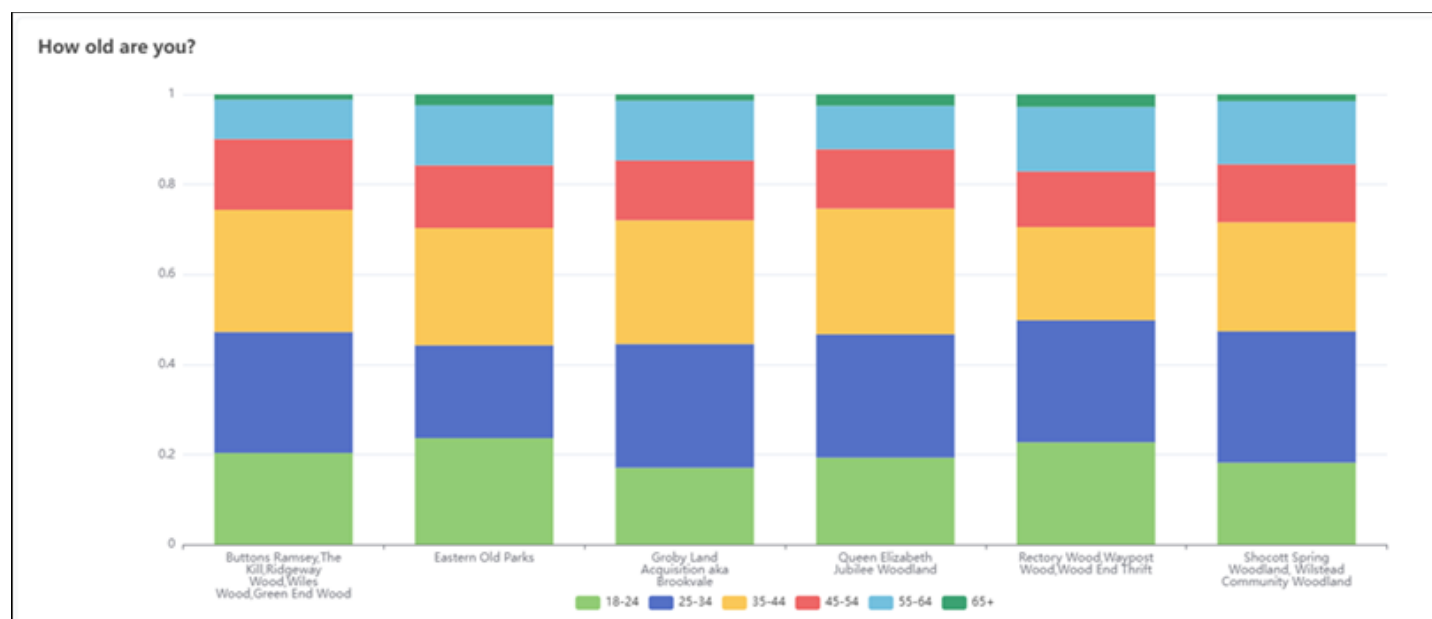
Figure 1: Age groups of respondents by woodland clusters (CATI survey) in Marston Vale and National Forest

Table 4: Employment status of CATI respondents

Student	Unemployed	Full-time employed	Part-time employed	Self-employed	Home-maker	Retired
16%	2%	34%	11%	31%	5%	0%
245	37	509	160	469	76	5

Male respondents represent a slightly larger proportion that female respondents (table 5).

Table 5: Gender of respondents (whole CATI sample)

Male	Female	Non-binary	Alternative identity	Prefer not to say
52%	47%	0%	0%	1%
780	709	1	0	11

Sixty four percent of respondents are white (table 6).

Table 6: Ethnicity of respondents (whole CATI sample)

White	Mixed or multiple ethnic groups	Asian or Asian British	Black, African, Caribbean or black British	Arab	Any other ethnic group or background	Prefer not to say
64%	8%	13%	9%	5%	1%	1%
960	119	191	133	68	22	8

Tables 7, 8, 9 and 10 show the socio-demographic data of the respondent sample from the face to face survey at Sence Valley. This is different to the CATI population in that the older age groups and retired category are a much greater proportion of the whole (tables 7 & 8). Also, there are more female than male respondents (table 9), and the percentage of white respondents is much higher than for the CATI survey at 96% (table 10).

Table 7: Sence valley respondents: Age group (percentage)

Age group	Percentage of respondents
18-24	2%
25-34	9%
35-44	14%

45-54	15%
55-64	22%
65+	39%

Table 8: Sence Valley respondents: Employment status (percentage)

Employment status	Percentage of respondents
Student	0%
Unemployed	3%
Full time employed	29%
Part time employed	13%
Self employed	5%
Homemaker	6%
Retired	44%
Other	0%

Table 9: Sence Valley respondents: Gender (percentage)

Gender	Percentage of respondents
Male	44%
Female	56%
Non-binary	0%
Alternative identity	0%
Prefer not to say	0%

Table 10: Sence Valley respondents: Ethnicity (percentage)

Ethnicity	Percentage of respondents
White British / Irish/ Welsh / Scottish	96%
Mixed or multiple ethnic groups	1%
Asian or Asian British	2%
Black, African, Caribbean, or Black British	0%
Arab	0%
Any other ethnic group or background	1%
Don't know	0%
Prefer not to say	0%

Notes on methodology

To inform wave 2 and also learning for longitudinal research more generally:

- Both CATI and face to face approaches provided the sample sizes required.

- The distance of 15 minutes walk from site is unrealistic for a quantitative study as it is not possible to get a required sample size. This was made more difficult because of the attempt to acquire a sample split between those who visit and those who do not.

- The lack of quotas mean that for the CATI survey young people are over-represented and this equates to an over-representation of students in the occupation category. There is also an under-representation of older age groups and retired people. This is likely reflective of the methods used for targeting respondents (i.e. using consumer panels frequently advertised through social media channels).

- Overall, the differences in sample make-up suggest a strong mode effect although this has not been tested statistically.

- The nature of planted 'clusters' of woodlands in FMV made the approach more complicated - presenting challenges for the interviewers when initially attempting to engage interviewees and understand which site the respondents are referring to in responses. That is, it would be more straightforward to ask respondents about their familiarity with a single named woodland, rather than asking about multiple sites.

7. Interim findings

Interim findings are presented here, structured according to RQ. Note that these are some examples of results, not all available results.

RQ1 What do local community members who have visited the site think about the intervention (new planting and expansion of woodland) and how it has come about?

To address this research question respondents in Sence Valley (face to face study) were asked whether they prefer the site as it is now, or before the new trees were planted or whether there is no change in their preference?[2]. In Sence Valley 74% prefer the site now (table 11).

Table 11: Sence Valley (percentage)

Prefer the site....	
I prefer the site as it is now	74%
I preferred the site before the new trees were planted	1%
No preference / don't know	25%

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[2] Note that in the CATI survey this was asked as an open-ended question, hence equivalent results are not available.

For the CATI survey, respondents were asked whether they visit the site more or less often now that the new trees have been planted (Figure 2). This is taken as a proxy to demonstrate their preference for the site before or after planting. Across all woodland sites and clusters around 40% of respondents visit more often now, around 40% visit about the same frequency as before, and only 12% less often.

Now that the trees have been planted, do you visit the site more or less often?
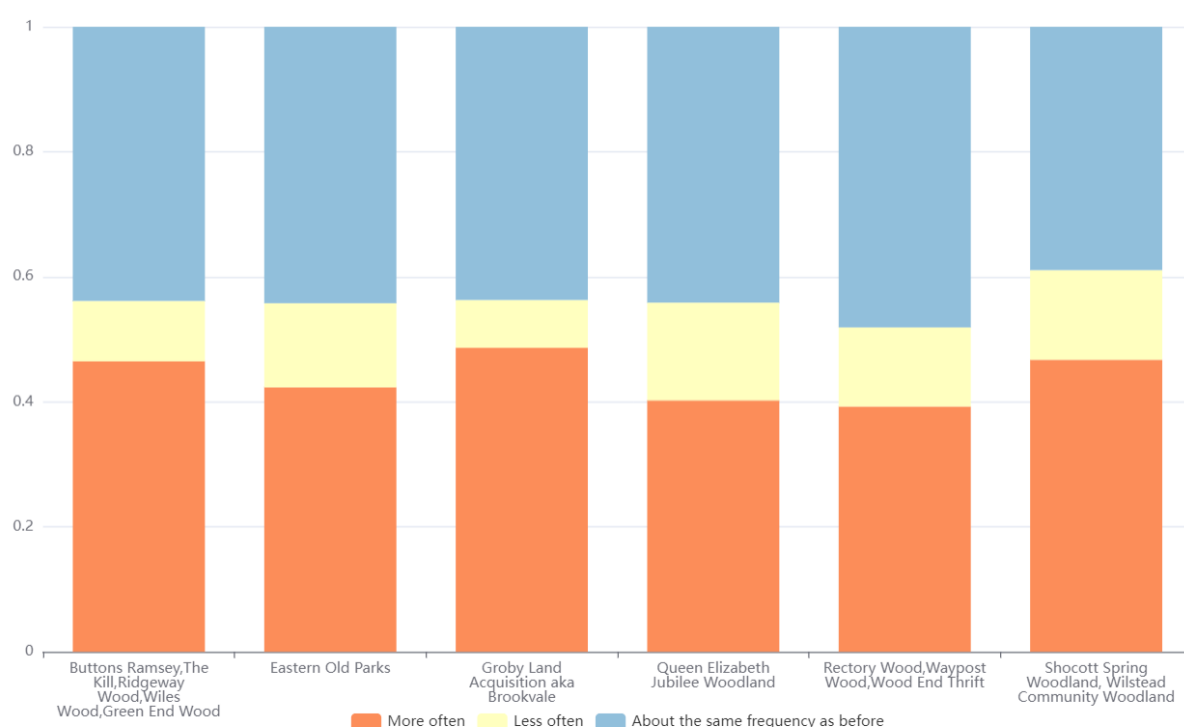
Figure 2: Has frequency of site visit changed since the trees were planted? (CATI survey)

Visitors to the sites were also asked to respond (agreement or disagreement) to 15 detailed statements about the sites to reflect both positive and negative aspects. Figures 3 and 4 show the responses to this question for both the CATI and face to face surveys. Generally, for both modes, respondents like the way the sites are laid out, think the choice of trees is good, but would like more facilities. There is also a high percentage of agreement with the statement "I feel pride in the site".
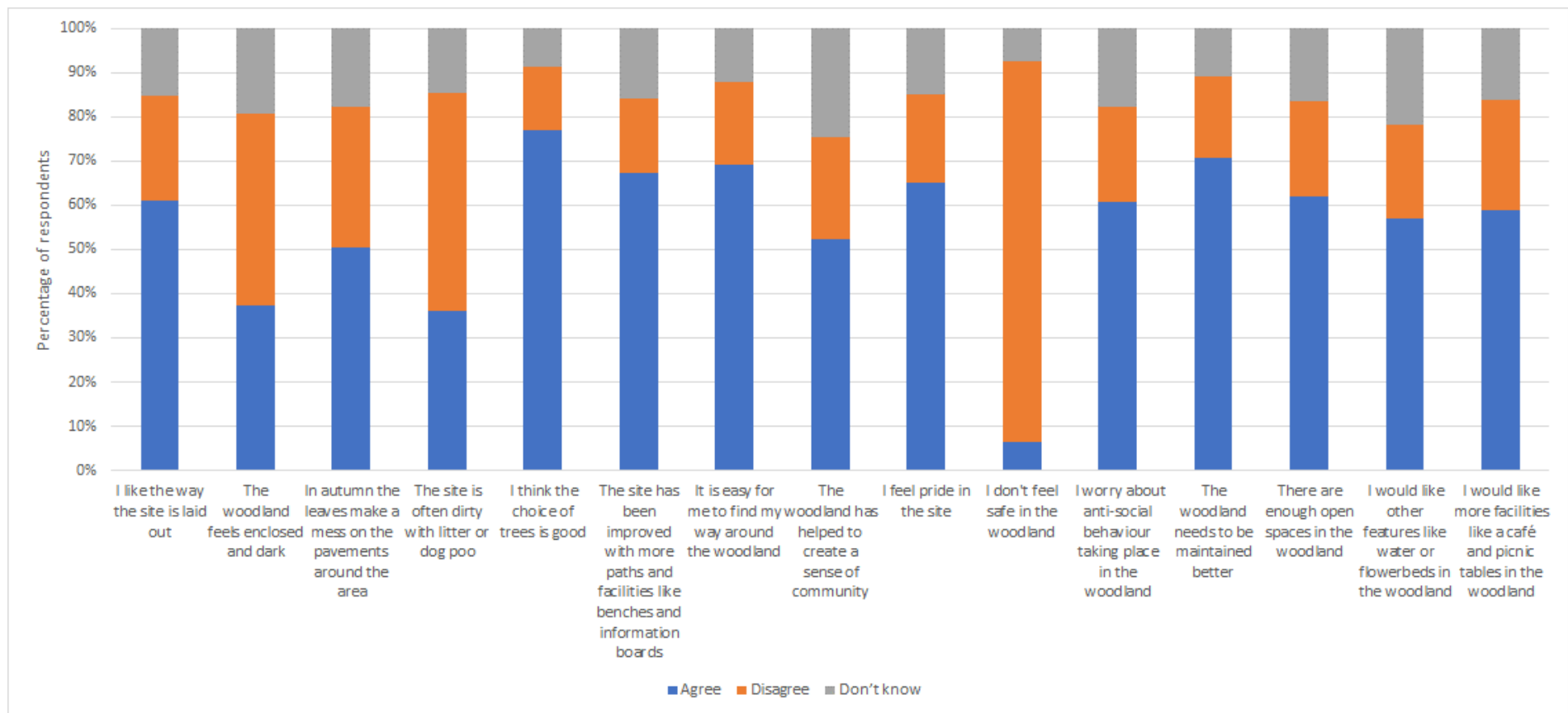
Figure 3: Q16. Do you agree or disagree with these statements about the woodland? (from CATI survey – those who visit)
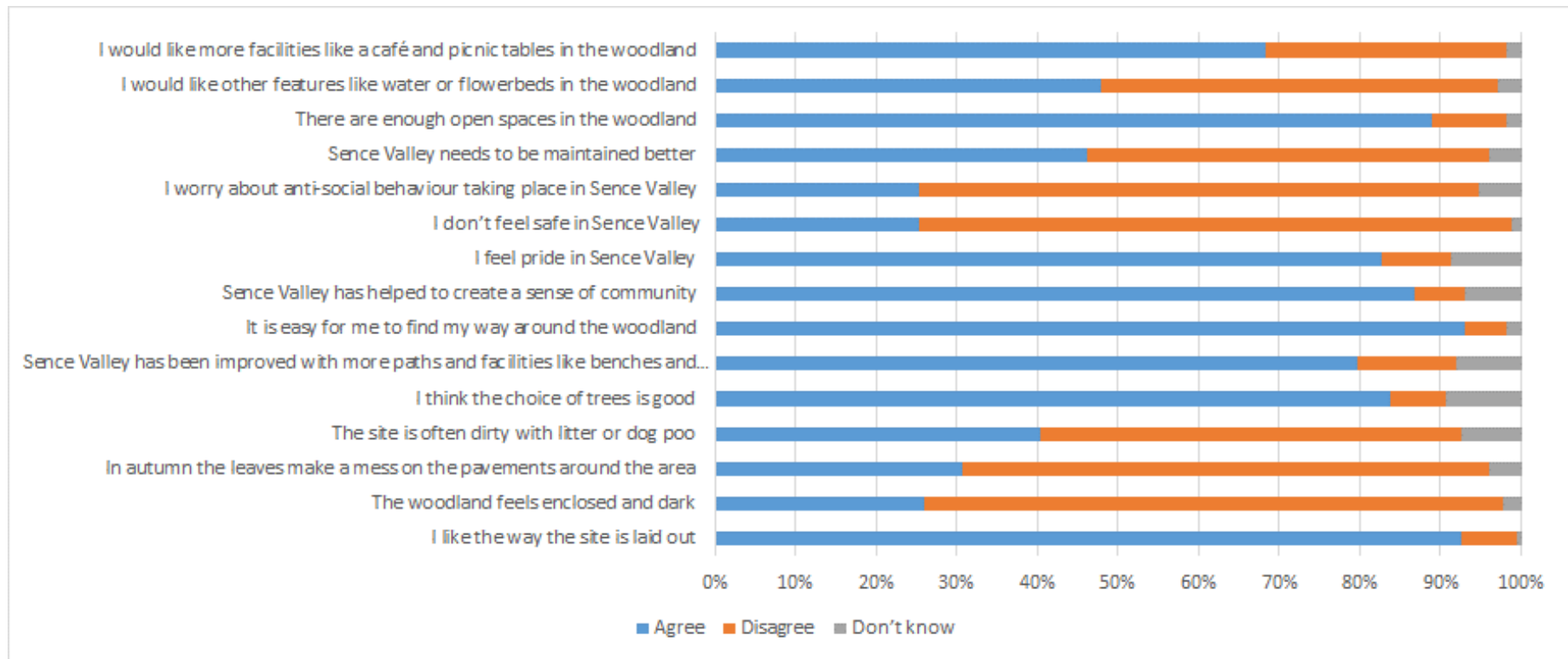
Figure 4: Q16. Do you agree or disagree with these statements about the woodland? (face to face)

For the final reporting there will be additional analysis to understand how these vary by frequency of visit, reason for visit and demographic variables etc.

RQ2 What do local community members who have not visited the site (but are aware of the intervention) think about it and how it has come about?

Included here are some text responses explaining reasons why people have not visited, even though they are aware of the site. Whilst not directly answering RQ2 these do provide some indication of what people think of the intervention. For example, reasons such as 'not interested', 'prefer other places' and 'lack of facilities' all say something about what people think of the site. Also, concerns about it being muddy and difficulties with getting there also indicate some opinions about the site. Other reasons for not visiting are more related to personal circumstances, for example 'too busy' and 'long term sick'. The project team plan to develop aspects of the questionnaire for Wave 2 to more directly address this RQ.

Some of the reasons why people say they have not visited are: (from CATI)

- Not interested

- Prefer other places

- Lack of facilities

- Too busy

- Long term sick

- Lack of transport

Some of the reasons why people say they have not visited are: (From face to face survey)

- Do not like getting muddy

- Prefer other places

- No interest in places like this

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- No reason to go there

- I do other things

- For a day out would go further afield

- Too many other places to go

- Never thought about it

- Their age (very elderly)

- Poor mobility

- Their health

- Work commitments

- No time

- No one to take them

- No transport

RQ3 What impacts has the intervention had on local community members who visit/engage with the site?

and

RQ4 What impacts, if any, has the intervention had on local community members who have not visited (but are aware of the intervention)?

To investigate the impact of the intervention on the well-being of local community members (both those who visit the woodlands and those who do not), and hence address RQs 3 & 4, the surveys included a number of questions to elicit respondents' self-reported personal health and well-being and the ways in which the newly planted trees provide social and cultural value to them. The intention will be to observe changes in the responses to these questions across survey waves. This may show correlation between visiting/not visiting the sites and feelings of well-being, but will not be able to show causation.

Q25 asked all respondents (visitors and non-visitors) to indicate their agreement or disagreement with 17 separate statements about social and cultural values of local trees. They were asked the following: Using a 5 point scale where 1 is Strongly disagree, 3 is neither agree nor disagree, and 5 is Strongly agree, how would you score the following statements: "I value newly planted trees in my local area because.... " (see figures 4 & 5 for responses).

The chart below (figure 4) is for the whole sample (non-visitors and visitors) from the CATI survey and shows the average score for each statement. This shows that those who visit the woodland sites generally express greater agreement with all the statements about the social and cultural values that they receive from the new tree planting in their local area.
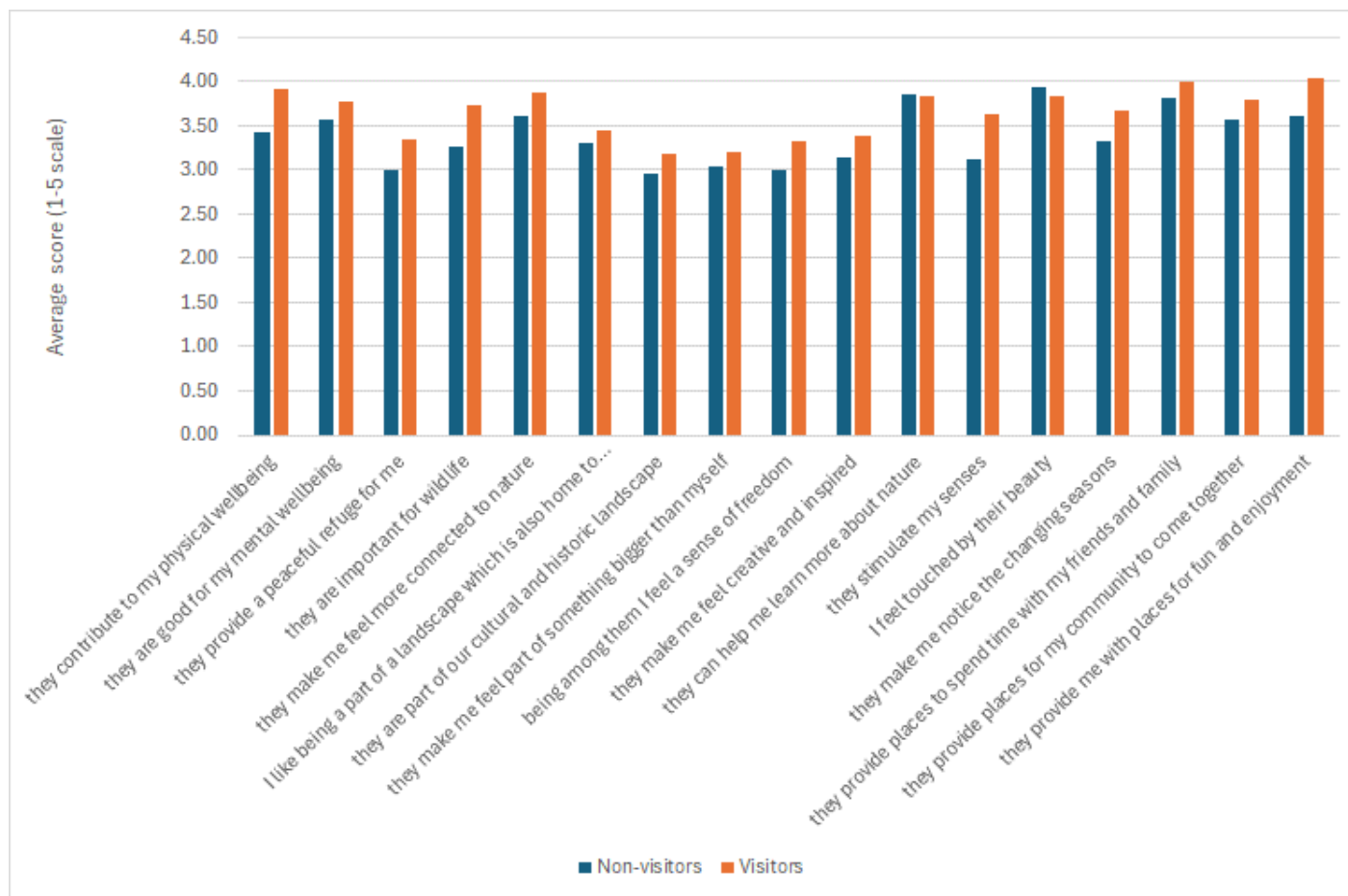
Figure 4: Q25 – whole sample (visitors and non) from CATI

Figure 5 shows the results to this same question from the face to face survey, and results are again split between those who visit and those who do not. This also shows that those who visit generally express greater agreement with all the statements about the social and cultural values that they receive from the new tree planting in their local area.

Figure 5: Split sample of responses to Q25 from the face to face Sence Valley study (those who visit (right hand side) and those who do not (left hand side))

For the final reporting, additional analysis will investigate these questions further by looking for variation in answers depending on frequency of visit, reason for visit and demographic variables, etc.

Next is an example of one of the well-being questions asked. Figure 6 below, from the face to face results, shows the difference in responses between those who visit the site and those who do not, with regard to their self-reported level of happiness the day before. This shows that those who visit Sence Valley express greater levels of happiness than those who do not visit.
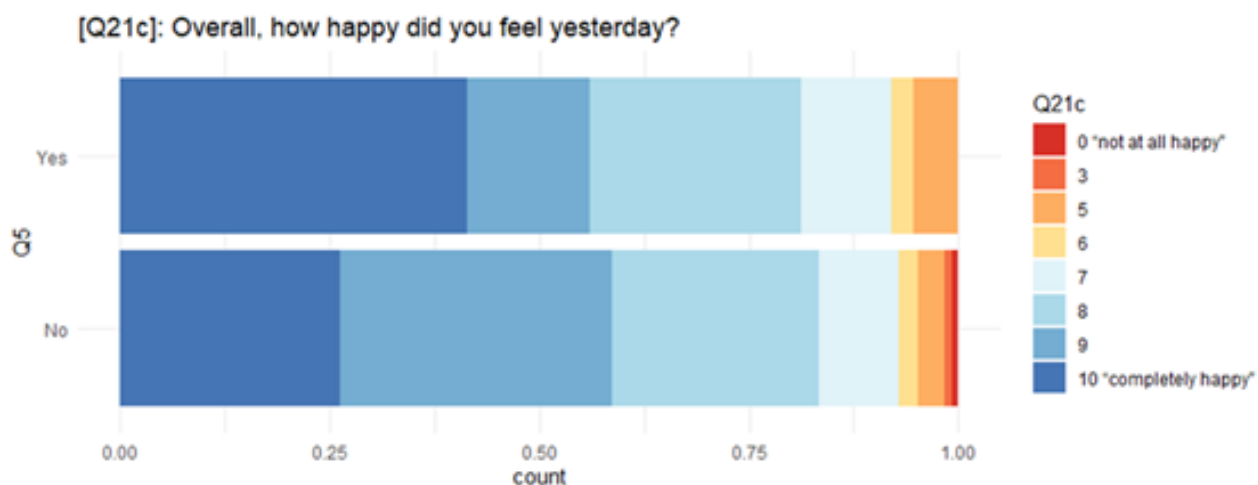
Figure 6: Chart to show differences in responses to the 'happiness' question between visitors (top bar) and non-visitors (bottom bar) (Sence Valley, face to face survey)

With regard to RQ3 only, survey respondents were asked what is the main activity they do when visiting the woodland. They were then asked if they do that activity more or less now that the new trees have been planted (tables 12 & 13). This shows that 43% of respondents from the CATI survey do their main on-site activity more now that the trees are planted. This suggests a strong positive impact on visitors after the planting intervention. However, when the same question was asked of the respondents to the face to face survey at Sence Valley a much lower

percentage (15%) of respondents indicated that they do their preferred on-site activity more now that the trees are planted. This may be because the Sence Valley new planting occurred adjacent to established woodland. Consistent across both modes is the low percentage of respondents who stated they do their preferred on-site activity less often now that the trees are planted.

Table 12: Q14. Do you do that activity you told me about…? (CATI)

More now the trees are planted	Less now the trees are planted	About the same amount as you did before the trees were planted
43%	13%	44%
597	173	612

Table 13: Q14. Do you do that activity you told me about…? (Face to face)

More now the trees are planted	Less now the trees are planted	About the same amount as you did before the trees were planted
15%	3%	82%
26	5	142

Appendix: Survey questionnaire

S02.

Interviewer to complete. Code location of interviews.

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Sence Valley Forest Park		SKIP TO Q1
2	Local area		CONTINUE

Base: All respondents in local area i.e. code "2" at S02.

S03. First of all, I'd like to ask; have you heard of Sence Valley Forest Park?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE
2	No		THANK & CLOSE

MAIN QUESTIONS – SECTION 1

Base: All respondents

Q1. Can you remember when you first became aware of Sence Valley Forest Park?

Please enter approximate year as stated by the respondent.

OPEN RESPONSE

Base: All respondents

SINGLE RESPONSE

Q2. Do you remember new trees being planted at Sence Valley Forest Park?

Code	Answer list	Scripting notes	Routing
1	Yes		ASK Q2a
2	No		SKIP TO Q2b or 3
3	Don't know		SKIP TO Q2b or 3

Base: All who said "yes" at Q2.

Q2a. Do you remember approximately when this was?

Please enter approximate year as stated by the respondent.

OPEN RESPONSE

Base: All respondents
Q2b. Approximately how long in minutes would it take you to walk from your home to Sence Valley Forest Park?
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	5 minutes or less		
2	6-10 minutes		
3	11-20 minutes		
4	21-29 minutes		
5	30 minutes +		

Base: All respondents
Q3. Do you remember the site before the new trees were planted?
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes		ASK Q3a
2	No		SKIP TO Q4
3	Don't know		SKIP TO Q4

Base: All who said "yes" at Q3.
Q3a. Do you prefer the site as it is now, or before the new trees were planted or is there no change in your preference?
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	As it is now		CONTINUE
2	Before the new trees were planted		CONTINUE
3	No preference / don't know		CONTINUE

Base: All respondents
Q4. Did you visit the site before the new trees were planted?
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE
2	No		CONTINUE
3	Don't know		CONTINUE

Base: All respondents in local area i.e. code "2" at S02.
   Q5. Have you visited Sence Valley Forest Park since the new trees were planted?
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Yes		CONTINUE
2	No		SKIP TO Q18
3	Don't know		SKIP TO Q18

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.
Q6. When did you first visit, after the new trees were planted?
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	1-4 weeks later		
2	1-2 months later		
3	3-6 months later		
4	More than 6 months but less than a year later		
5	1 to 2 years later		
6	More than 2 but less than 5 years later		
7	5 or more years later		

Base: All who said "yes" at Q5 OR all respondents in local area i.e. code "2" at S02.

Q7. When was your most recent visit to this woodland?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	In the last week		
2	In the last 1-4 weeks		
3	In the last 1-2 months		
4	More than 2 but less than 6 months ago		
5	6 to 12 months ago		
6	More than 1 but less than 2 years ago		
7	2 to 5 years ago		
8	More than 5 years ago		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q8. How frequently do you visit this woodland?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Several times per week		
2	Several times per month		
3	About once a month		
4	Less often		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q9. Now that the new trees have been planted, do you visit the site more or less often?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	More often		
2	Less often		
3	About the same frequency as before		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q10. Who do you usually visit Sence Valley forest park with?

MULTIPLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Alone		
2	With partner		
3	Friends		
4	Family		
5	A community group		
6	A pet		
7	Other WRITE IN _____	OPEN RESPONSE	

Base: All respondents in park i.e. code "1" at S02.

Q11a. How do you usually get here?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	On foot		
2	Cycle		
3	Public transport		
4	Private vehicle (as driver or passenger)		
5	Taxi		
6	Wheelchair or mobility scooter		
8	Other WRITE IN _____		

Base: All who said "yes" at Q5

Q11b. How do you usually get there?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	On foot		
2	Cycle		
3	Public transport		
4	Private vehicle (as driver or passenger)		
5	Taxi		
6	Wheelchair or mobility scooter		
8	Other WRITE IN _____		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q12. How long do you usually stay at the site?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	15 mins or less		
2	Between 15 mins and one hour		
3	Between one to two hours		
4	More than two hours		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q13. What activities do you mostly do when you visit?

Main activity only.

SINGLE RESPONSE / RANDOMIZE

Code	Answer list	Scripting notes	Routing
1	Walking (without a dog)		
2	Dog walking		
3	Running or jogging		
4	Cycling		
5	Wildlife watching		
6	Picnicking / eating outside		
7	Playing with children		
8	Woodland crafts		
9	Horse riding		
10	Climbing trees		
11	Fishing		
12	Sports or games		
13	Organised activity e.g. ranger event		
14	Other WRITE IN _____		
15	None of the above		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q14. Do you do that activity you told me about…?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	More now the new trees are planted		
2	Less now the new trees are planted		
3	About the same as before the new trees were planted		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q15. What is the **main** reason you visit Sence Valley Forest Park?

SINGLE RESPONSE / RANDOMIZE

Code	Answer list	Scripting notes	Routing
1	For physical health & exercise		
2	To take a break, get fresh air		
3	For mental health & wellbeing		
4	To be by myself		
5	To be with family and / or friends		
6	To connect to nature		
7	Other WRITE IN _____		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q16. Do you agree or disagree with these statements about the woodland?

SINGLE RESPONSE PER STATEMENT/ RANDOMIZE STATEMENT LIST

Code	Answer list	Scripting notes	Routing
1	I like the way the site is laid out		
2	The woodland feels enclosed and dark		
3	In autumn the leaves make a mess on the pavements around the area		
4	The site is often dirty with litter or dog poo		
5	I think the choice of trees is good		
6	Sence Valley has been improved with more paths and facilities like benches and information boards		
7	It is easy for me to find my way around the woodland		
8	Sence Valley has helped to create a sense of community		
9	I feel pride in Sence Valley		
10	I don't feel safe in Sence Valley		
11	I worry about anti-social behaviour taking place in Sence Valley		
12	Sence Valley needs to be maintained better		
13	There are enough open spaces in the woodland		
14	I would like other features like water or flowerbeds in the woodland		
15	I would like more facilities like a café and picnic tables in the woodland		

Code	Answer list	Scripting notes	Routing
1	Agree		
2	Disagree		
3	Don't know		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.

Q17a. In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces? Here we are interested in time spent in any green space, not just Sence Valley
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Every day		
2	A few times a week		
3	Once a week		
4	Once or twice a month		
5	Once every 2-3 months		
6	Once every 6 months or less often		
7	Never		

Base: All who said "yes" at Q5 OR all respondents in park i.e. code "1" at S02.
Q17b. Since you started visiting Sence Valley, do you visit other green spaces?
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	More often		
2	Less often		
3	About the same frequency as before		

Base: All who said "no" at Q5.
Q18. Why is that?
OPEN ENDED RESPONSE

Base: All who said "no" at Q5.
Q19. In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces?
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Every day		
2	More than twice a week, but not every day		
3	Twice a week		
4	Once a week		
5	Once or twice a month		
6	Once every 2-3 months		
7	Once every 6 months or less often		
8	Never		

WOODLAND ENGAGEMENT OTHER THAN VISITING – SECTION 2

Base: All respondents
Q20. Have you…?
SINGLE RESPONSE / READ OUT STATEMENTS

Code	Statement list	Scripting notes	Routing

1	Been involved in or consulted about plans for creating, managing or using woodlands in your area		
2	Been involved in an organised tree planting event		
3	Been involved with a forest schools event in woodlands		
4	Been involved with a children's event in woodlands		
5	Become a member of a local community based woodland group such as a 'Community Trust' or 'Friends of' group		
6	Been litter picking in a woodland(s)		
7	Become a tree warden or wood warden for a local woodland(s)		
8	Attended regular woodland management volunteering events		
9	Attended a one-off woodland management volunteering event		
10	Attended any other type of organised event in the woodlands		

Code	Answer list	Scripting notes	Routing
1	Yes		
2	No		

LIFESTYLE SATISFACTION & PERSONAL HEALTH – SECTION 3

Base: All respondents
    INFO1
We have some questions about your health & wellbeing. We are asking these questions because we want to investigate the connection between visiting nature and how people feel.

Base: All respondents
Q21a. Overall how satisfied are you with your life nowadays? Answer on a scale of 1 to 10, where 0 is "not at all satisfied" and 10 is "completely satisfied"

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "not at all satisfied"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "completely satisfied"		
12	Don't know		
13	Prefer not to say		

Base: All respondents
Q21b. Overall to what extent do you feel that the things you do in your life now are worthwhile? Answer on a scale of 1 to 10, where 0 is "not at all worthwhile" and 10 is "completely worthwhile"

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "not at all worthwhile"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "completely worthwhile"		
12	Don't know		
13	Prefer not to say		

Base: All respondents
Q21c. Overall how happy did you feel yesterday? Answer on a scale of 1 to 10, where 0 is "not at all happy" and 10 is "completely happy"

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "not at all happy"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "completely happy"		
12	Don't know		
13	Prefer not to say		

Base: All respondents
Q22. On a scale of 0 to 10, where 0 is "not anxious" and 10 is "completely anxious", overall, how anxious did you feel yesterday?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "not anxious"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "completely anxious"		
12	Don't know		
13	Prefer not to say		

Base: All respondents.

Q23. In general, would you say that your health is?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Very good		
2	Good		
3	Fair		
4	Bad		
5	Very bad		
6	Don't know		
7	Prefer not to say		

CONNECTION TO NATURE – SECTION 4

Base: All respondents

Q24a. Where 0 is "unimportant" and 10 is "important", how important is spending time in nature for you?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "unimportant"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "important"		

Base: All respondents
Q24b. Where 0 is "dull" and 10 is "exciting", how do you find spending time in nature?
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	0 "dull"		
2	1		
3	2		
4	3		
5	4		
6	5		
7	6		
8	7		
9	8		
10	9		
11	10 "exciting"		

BENEFITS & DISBENEFITS, INCLUDING WHAT IS VALUED – SECTION 5

Base: All respondents
Q25. Using a 5-point scale where 1 is strongly disagree, 3 is neither agree nor disagree, and 5 is strongly agree, how would you score the following statements:
"I value newly planted trees in my local area because…."
READ OUT STATEMENTS
SINGLE RESPONSE / RANDOMIZE

Code	Statement list	Scripting notes	Routing
1	…they contribute to my physical wellbeing		
2	…they are good for my mental wellbeing		
3	…they provide a peaceful refuge for me		
4	…they are important for wildlife		
5	…they make me feel more connected to nature		
6	…I like being a part of a landscape which is also home to wildlife		
7	…they are part of our cultural and historic landscape		
8	…they make me feel part of something bigger than myself		
9	…being among them I feel a sense of freedom		
10	…they make me feel creative and inspired		
11	…they can help me learn more about nature		
12	…they stimulate my senses		
13	…I feel touched by their beauty		
14	…they make me notice the changing seasons		
15	…they provide places to spend time with my friends and family		
16	…they provide places for my community to come together		
17	…they provide me with places for fun and enjoyment		

Code	Answer list	Scripting notes	Routing
1	1 "strongly disagree"		
2	2		
3	3 "neither agree or disagree"		
4	4		
5	5 "strongly agree"		

Base: All respondents

Q26. Which of these statements do you agree with?

READ OUT STATEMENTS

SINGLE RESPONSE / RANDOMIZE

Code	Statement list	Scripting notes	Routing
1	The area where I live needs more trees		
2	The area where I live needs fewer trees		
3	The area where I live has the right amount of trees		

Code	Answer list	Scripting notes	Routing
1	Agree		
2	Disagree		

PRO ENVIRONMENTAL BEHAVIOURS – SECTION 6

Base: All respondents

Q27. Do you do any of the following?

READ OUT STATEMENTS

MULTI RESPONSE / RANDOMIZE

Code	Statement list	Scripting notes	Routing
1	When you see litter, you pick it up		
2	You avoid eating animal products		
3	You avoid disturbing wildlife when in nature		
4	You talk to other people about the importance of protecting nature		
5	You educate yourself about protecting nature e.g. by watching documentaries or reading articles or books		
6	You sign petitions, contact your local MP or council, or participate in campaigns or demonstrations about protecting nature		
7	You survey or record wildlife, e.g. as part of the RSPB's Big Garden Birdwatch		
8	You do things in the garden to benefit wildlife		
9	None of the above	EXCLUSIVE	

SOCIO DEMOGRAPHICS – SECTION 7

Base: All Respondents

SINGLE RESPONSE

Q28. How old are you?

Code	Answer list	Scripting notes	Routing
1	18-24		
2	25-34		
3	35-44		
4	45-54		
5	55-64		
6	65+		
7	Refused		

Base: All Respondents

Q29. What gender do you identify with?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Male		
2	Female		
3	Non-binary		
4	Alternative identity		
5	Prefer not to say		

Base: All Respondents

Q30. What ethnicity do you identify as?

SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	White British / Irish/ Welsh / Scottish		
2	Mixed or multiple ethnic groups		
3	Asian or Asian British		
4	Black, African, Caribbean, or Black British		
5	Arab		
6	Any other ethnic group or background		
7	Don't know		
8	Prefer not to say		

Base: All Respondents

Q31. Please tell me, how many…..

OPEN RESPONSE

Code	Answer list	Scripting notes	Routing
1	Adults, including yourself, live in your household? (that is, age 18 and over)	OPEN RESPONSE	

| 2 | Children aged 8-17 live in your household? | OPEN RESPONSE | |
| 3 | Children aged 7 and under live in your household? | OPEN RESPONSE | |

Base: All Respondents
Q32. Which of the following best describes your employment status?
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	Student		
2	Unemployed		
3	Full time employed		
4	Part time employed		
5	Self employed		
6	Homemaker		
7	Retired		
8	Other (please specify):	OPEN RESPONSE	

Base: All Respondents
Q33. Approximately how many years have you lived at your current address?
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	6 months or less		
2	More than 6 but less than 12 months		
4	1 to 2 years		
5	More than 2 but less than 5 years		
6	5 to 10 years		
7	10 years or more		

Base: All Respondents
Q33a. What is your postcode?
PLEASE RECORD
OPEN RESPONSE

Q33b. Approximately how long have you lived in the local area? (if different to your previous answer)
SINGLE RESPONSE

Code	Answer list	Scripting notes	Routing
1	6 months or less		
2	More than 6 but less than 12 months		
4	1 to 2 years		
5	More than 2 but less than 5 years		
6	5 to 10 years		
7	10 years or more		
8	Not applicable		

Base: All Respondents
Q34. Are you a member of any of the following?

MULTI RESPONSE

Code	Answer list	Scripting notes	Routing
1	English Heritage		
2	Forestry England		
3	National Trust		
4	Royal Society for the Protection of Birds		
5	Wildlife Trust		
6	Woodland Trust		
7	Worldwide Fund for Nature		
8	Any other nature conservation organisation		
9	None of the above	EXCLUSIVE	

Base: All respondents

SINGLE RESPONSE

Q35. Do you have a dog in your household?

Code	Answer list	Scripting notes	Routing
1	Yes		
2	No		

Base: All respondents

SINGLE RESPONSE

Q36. Do you have access to a garden (private or shared) or an allotment?

Code	Answer list	Scripting notes	Routing
1	Yes		
2	No		

Interim report

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Appendix 9 – Full report of results from Wave 2 quantitative research:

Mapping the social benefits of woodland creation and expansion

Clare Hall & Beth Brockett

The Research Agency of the
Forestry Commission

Forest Research is the Research Agency of the Forestry Commission and is the leading UK organisation engaged in forestry and tree related research.

The Agency aims to support and enhance forestry and its role in sustainable development by providing innovative, high quality scientific research, data, technical support and consultancy services.

Table of Contents

Table of Figures

1 Introduction

This appendix provides a summary reminder of the relevant part of the methodology and the full results from Wave 2 of the quantitative element of the research project 'Mapping the social benefits of woodland creation and expansion: Proof-of-concept for setting up a longitudinal network'. Please see the main report for a summary of the main findings and conclusions.

2 Methodology

Wave 2 of the longitudinal study questionnaire survey was conducted during November 2024 in the same four National Forest locations and nine Forest of Marston Vale locations as for Wave 1. The questionnaire was delivered through face-to-face surveying with people randomly approached on the street in the local area, and through door knocking on properties in the immediate vicinity. To establish participant eligibility they were asked to provide the full postcode of their main residential address. If this did not correspond with postcodes pre-loaded onto the interviewer's tablet the person was immediately excluded (note that to be eligible the person had to have a home postcode within 2.5km of the named woodland site). No quota sampling was applied although it was stressed to the interviewers that there was a requirement to obtain completed questionnaires from both those who visited the locally named woodland site and those who did not.

The Wave 2 questionnaire included 30 questions, primarily closed-ended. Appendix 3 contains the full questionnaire. Sections related to participant views of the newly planted trees, attitudes to the named new woodland site, details of any site visits and activities and engagement with woodland activities besides regular recreational visits, self-reported health and well-being questions, a suite of 17 attitudinal statements about the social and cultural values of young woodland and newly planted trees in the local area, and socio-demographic information. Respondents were routed

past the site visit questions early in the questionnaire if they indicated that they knew of the named woodland site but had not visited since new trees were planted. Analysis was carried out in R and followed an analysis plan designed around the first four research questions. Specifically, analysis aimed to investigate whether peoples' responses differed according to standard socio-demographic characteristics, but also whether responses differed according to frequency of site visit (including no visit at all), and frequency of spending time in greenspace.

3 Results and discussion

Sample description

A total of 589 completed questionnaires were available for analysis. This comprised 499 visitors to one of the woodlands and 90 non-visitors. Table 1 shows which location the respondents were associated with. The highest number of responses for any one site is at Old Parks Farm (83) in the National Forest, and the lowest number of responses for any one site is from Green End Wood (13) in the Forest of Marston Vale. Interviewers found it challenging to find people who had heard of the sites but not visited, hence the numbers of non-visitors is low in all locations. The highest number of non-visitors for a particular site was again Old Parks Farm; whilst two sites have no respondents recorded as non-visitors (Brookvale New Woodland and Rectory Wood). The site with the highest number of completed questionnaires with visitors was Brookvale, and the one with the lowest number was Green End Wood.

Table 1: Location of respondents (named woodland site to which their answers were related)

			Total	N (visitors)	N (non-visitors)
NATIONAL FOREST SITES		Brookvale New Woodland	66	66	0
		Queen Elizabeth Diamond Jubilee Woodland	70	65	5
		Sence Valley Park	80	63	17
		Old Parks Farm	83	54	29
		NF totals	**299**	**248**	**51**
FOREST OF MARSTON VALE SITES 3 CLUSTERS - LABELLED C1, C2 C3	C1	Rectory Wood	55	55	0
		Waypost Wood	29	21	8
	C2	Wilstead Community Woodland	51	48	3
		Shocott Spring	49	43	6
	C3	Ridgeway Wood	17	13	4
		The Kill	30	24	6
		Buttons Ramsey	26	21	5
		Green End Wood	13	9	4
		Wiles Wood	20	17	3
		Marston Vale totals	**290**	**251**	**39**

Table 2 presents the socio-demographic data for the whole sample of respondents, showing that over 50% were over the age of 55, 52% were female, 88% were White, 46% were in full-time employment, and 54% had lived in the area for more than 10 years. Fifty four percent had a dog, and 77% had access to a garden. When asked "In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces?" 31% said once or twice a month.

Table 2: Socio-demographics – whole sample

Question	Category	N	Total	%
Age	18-24	20	589	3.4
	25-34	39	589	6.6
	35-44	60	589	10.2
	45-54	90	589	15.3
	55-64	152	589	25.8
	65+	226	589	38.4
	Prefer not to say	2	589	0.3
Gender	Female	305	589	51.8
	Male	280	589	47.5
	Non-binary	4	589	0.7
Ethnicity	White British / Irish / Welsh / Scottish	519	589	88.1
	Mixed or multiple ethnic groups	16	589	2.7
	Asian or Asian British	41	589	7.0
	Black, African, Caribbean, or Black British	8	589	1.4
	Any other ethnic group or background	5	589	0.8
Employment status	Prefer not to say	4	589	0.7
	Student	14	589	2.4
	Unemployed	5	589	0.8
	Full time employed	273	589	46.3
	Part time employed	43	589	7.3
	Self employed	32	589	5.4
	Homemaker	25	589	4.2
	Retired	190	589	32.3
	Other	3	589	0.5
Education Level	Prefer not to say	12	589	2.0

	GCSEs or equivalent	65	589	11.0
	A-Levels or equivalent	60	589	10.2
	Vocational qualification (e.g., NVQ, BTEC)	92	589	15.6
	Apprenticeship	42	589	7.1
	Higher National Certificate (HNC) / Higher National Diploma (HND)	118	589	20.0
	Bachelor's degree or equivalent	91	589	15.4
	Postgraduate qualification	33	589	5.6
	Professional qualification (e.g., Chartered Accountant, Solicitor)	26	589	4.4
	No formal qualifications	50	589	8.5
Approximately how long have you lived in the local area?	Prefer not to say	2	589	0.3
	6 months or less	12	589	2.0
	More than 6 but less than 12 months	25	589	4.2
	1 to 2 years	26	589	4.4
	More than 2 but less than 5 years	107	589	18.2
	5 to 10 years	99	589	16.8
	More than 10 years	318	589	54.0
Do you have a dog in your household?	Yes	318	589	54.0
	No	271	589	46.0
Do you have access to a garden (private or shared) or an allotment?	Yes	456	589	77.4
	No	133	589	22.6
In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces?	Every day	10	589	1.7
	A few times a week	48	589	8.1
	Once a week	61	589	10.4
	Once or twice a month	182	589	30.9
	Once every 2-3 months	141	589	23.9
	Once every 6 months or less often	141	589	23.9
	Not at all	6	589	1.0

Research Question (RQ) 1 What do local community members who have visited the site think about the intervention (new planting and expansion of woodland) and how it has come about?

As noted in the previous section, there were 499 completed questionnaires from visitors, almost equally split between the National Forest sites (248) and the Forest of Marston Vale sites (251). These were split across the individual woodland sites as detailed in table 3. Looking at the totals for the four National Forest sites and the three Forest of Marston Vale clusters, numbers or responses ranged from 54 to 91 per location.

Table 3: Number of respondents per site (visitors)

			N (visitors)	
NATIONAL FOREST SITES		Brookvale New Woodland	66	
		Queen Elizabeth Diamond Jubilee Woodland	65	
		Sence Valley Park	63	
		Old Parks Farm	54	
		National Forest total	**248**	
FOREST OF MARSTON VALE SITES 3 CLUSTERS LABELLED C1, C2 C3	C1	Rectory Wood	55	**C1 total 76**
		Waypost Wood	21	
	C2	Wilstead Community Woodland	48	**C2 total 91**
		Shocott Spring	43	
	C3	Ridgeway Wood	13	**C3 total 84**
		The Kill	24	
		Buttons Ramsey	21	
		Green End Wood	9	
		Wiles Wood	17	
		Forest of Marston Vale total	**251**	

Respondent's location of home address and time taken to walk to site (their own estimation) is displayed in maps 1 and 2.
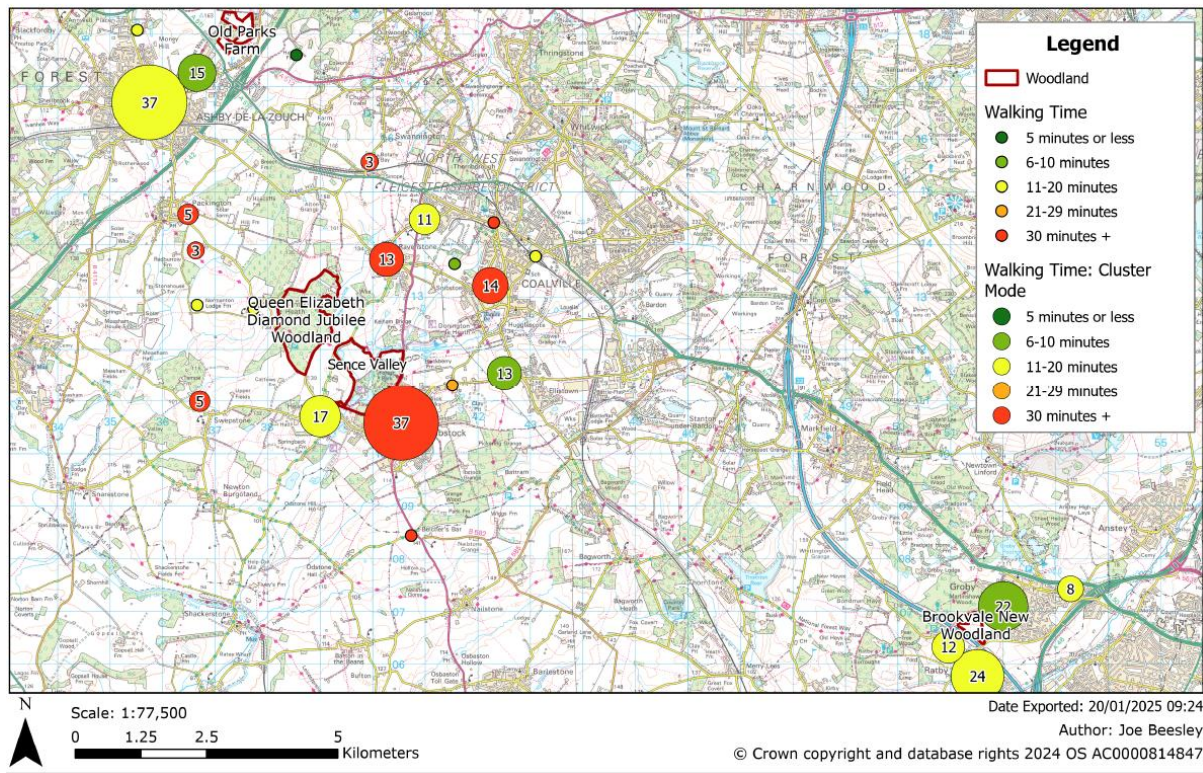
Map 1: Location of National Forest respondents
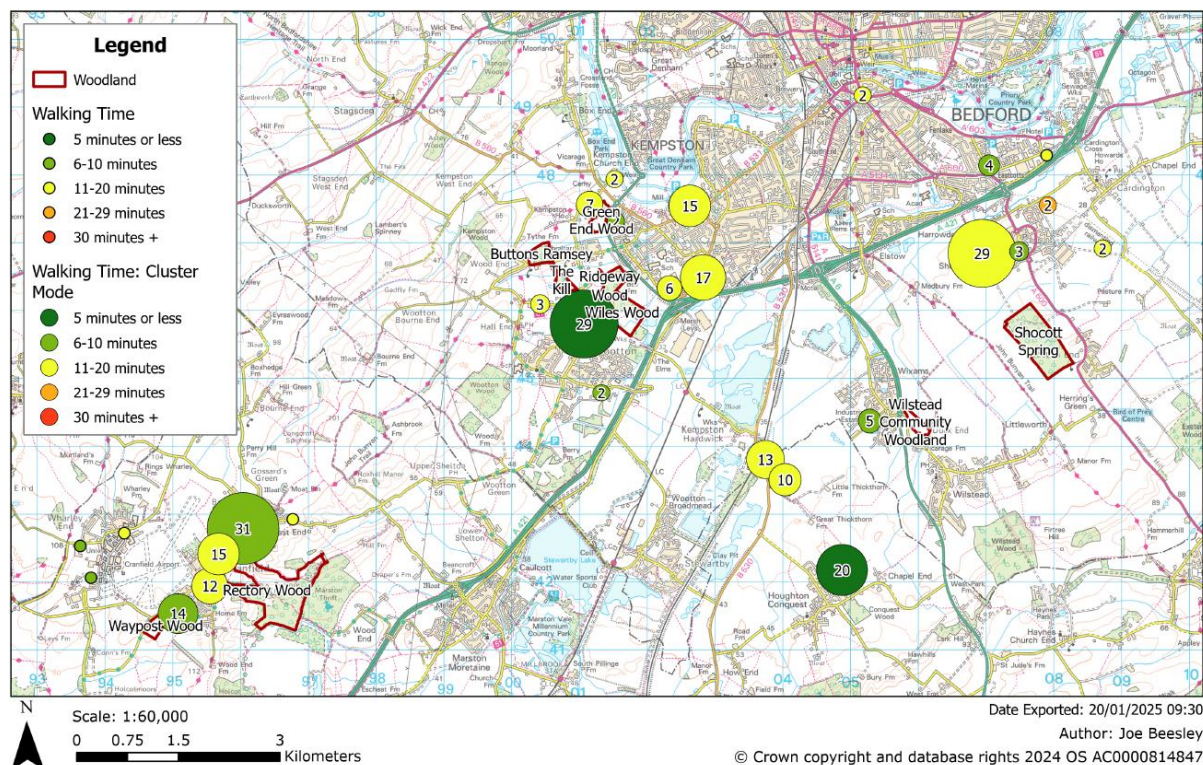
Map 2: Location of Forest of Marston Vale respondents

In reporting the socio-demographic characteristics of visitors, table 4 shows that more than 60% were over the age of 55, 52% were female and 89% were White. Forty six percent were in full-time employment and 34% were retired. Fifty seven percent had lived in the area for more than 10 years, 58% had a dog, and 82% had access to a garden.

Table 4: Socio-demographic characteristics of visitors

Question	Category	N	Total	%
Age	18-24	17	499	3.4
	25-34	30	499	6.0
	35-44	54	499	10.8
	45-54	75	499	15.0
	55-64	129	499	25.9
	65+	192	499	38.5
	Prefer not to say	2	499	0.4
Gender	Female	257	499	51.5
	Male	239	499	47.9
	Non-binary	3	499	0.6
Ethnicity	White British / Irish / Welsh / Scottish	445	499	89.2
	Mixed or multiple ethnic groups	13	499	2.6
	Asian or Asian British	33	499	6.6
	Black, African, Caribbean, or Black British	5	499	1.0
	Any other ethnic group or background	3	499	0.6
Employment status	Prefer not to say	4	499	0.8
	Student	11	499	2.2
	Unemployed	3	499	0.6
	Full time employed	227	499	45.5
	Part time employed	38	499	7.6
	Self employed	27	499	5.4
	Homemaker	21	499	4.2
	Retired	167	499	33.5
	Other	1	499	0.2
Education Level	Prefer not to say	11	499	2.2
	GCSEs or equivalent	56	499	11.2

Question	Category	N	Total	%
	A-Levels or equivalent	49	499	9.8
	Vocational qualification (e.g., NVQ, BTEC)	78	499	15.6
	Apprenticeship	34	499	6.8
	Higher National Certificate (HNC) / Higher National Diploma (HND)	99	499	19.8
	Bachelor's degree or equivalent	76	499	15.2
	Postgraduate qualification (e.g., Master's degree, PhD)	32	499	6.4
	Professional qualification (e.g., Chartered Accountant, Solicitor)	25	499	5.0
	No formal qualifications	39	499	7.8
Approximately how long have you lived in the local area?	Prefer not to say	2	499	0.4
	6 months or less	7	499	1.4
	More than 6 but less than 12 months	18	499	3.6
	1 to 2 years	20	499	4.0
	More than 2 but less than 5 years	81	499	16.2
	5 to 10 years	86	499	17.2
	More than 10 years	285	499	57.1
Do you have a dog in your household?	Yes	291	499	58.3
	No	208	499	41.7
Do you have access to a garden (private or shared) or an allotment?	Yes	407	499	81.6
	No	92	499	18.4

Respondents were asked whether they thought that the planting of trees to create young woodlands at the sites was a good thing or not. Ninety eight percent of visitors said it was a good thing. Results were tested to see whether there was a difference of opinion about the new trees planted between visitors and non-visitors, and it was found that visitors were more likely to say it was a good thing ($p=0.01$). However,

due to the low frequency of category 'This is not a good thing?', this result must be considered with caution and no further analysis was conducted.

A majority of respondents visited the named woodland site several times per month (47%) and 30% visited several times per week.

Thirty three percent of visitors had spent time outside in greenspace once or twice a month on average in the previous 12 months (table 5). The next largest responses were from those who had spent time once every 6 months or less (28%) and once every 2-3 months (27%). The latest yearly reporting figures from the nationally representative adult People and Nature Surveys (April 2023 - March 2024[1]) show that 82% of respondents spent time in greenspaces one a month or more frequently. Because of this discrepancy with national figures, with non-visitors (see below) and with reported visitation rates to the named woodland, we suggest considering these figures with caution. It may be that respondents believed they should not take visits to the named woodland into account in their response to the question 'In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces?'

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[1] The People and Nature Surveys for England: Data tables and publications from Adults' survey year 4 (April 2023 - March 2024) - GOV.UK

Table 5: Visits to the named woodland and spending time in greenspace

Question	Category	N	Total	%
How frequently do you visit this woodland?	Less often	81	499	16.2
	About once a month	36	499	7.2
	Several times per month	235	499	47.1
	Several times per week	147	499	29.5
In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces?	Every day	6	499	1.2
	A few times a week	14	499	2.8
	Once a week	41	499	8.2
	Once or twice a month	163	499	32.7
	Once every 2-3 months	136	499	27.3
	Once every 6 months or less often	137	499	27.5
	Not at all	2	499	0.4

Some of the woodlands existed before the new trees were planted and some interviewees visited them prior to the new planting. Of those, 87% of visitors visited the named woodland site about the same frequency as before the younger trees were planted.

Most visitors to the named sites stayed there for between 15 minutes and an hour (64%). A further 31% stayed for between one to two hours. Analysis revealed that men, retired people, those who had lived in the local area for more than 10 years and those people with access to a garden were all more likely to stay at the woodland site for longer than one hour.

Interviewees were asked whether they agreed or disagreed with 22 statements about the woodland (figure 1). Statements with the highest level of agreement included "the woodland is good for wildlife" (97%), "the woodland is good because it is important to plant more trees" (95%) and "the woodland has improved local landscapes" (95%). Statements with the highest level of disagreement included "the woodland seems dark and unwelcoming" (68%), "I worry about anti-social behaviour

taking place in the woodland" (67%) and "the site is often dirty with litter or dog mess" (63%). There were some statistically significant differences in responses based on peoples' socio-demographic characteristics. For example, those who had lived in the area the least amount of time appeared more likely to agree more strongly with statements such as "woodland seems dark and unwelcoming", "in autumn the leaves make a mess on the pavements around the area" and "the site is often dirty". Females were more likely than males to agree that they would like more facilities such as picnic tables and a café. Females were also more likely than males to agree that they worried about anti-social behaviour in the woodland. Those respondents with access to a garden demonstrated a higher level of agreement with statements that said positive things about the site, and a lower level of agreement with statements that said negative things about the site, than those people without access to a garden. There are 11 statements where this relationship is statistically significant.
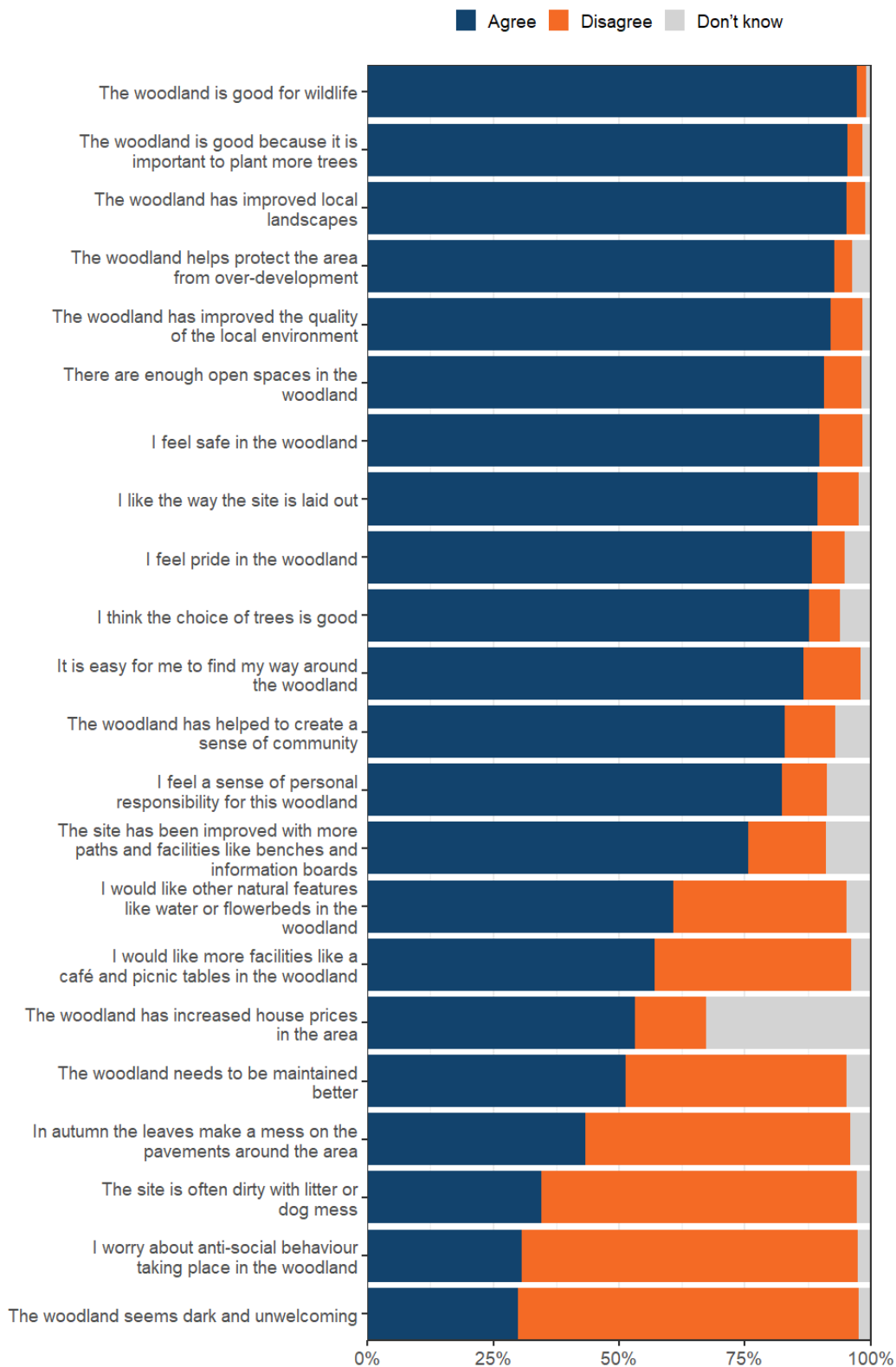
Figure 1: Do you agree or disagree with these statements about the woodland? (n=499)

Respondents were asked if they had been involved in a range of activities or events in woodlands or in connection to woodlands (table 6). The activity with the highest level of engagement was litter picking in a woodland. The only other type of activity with more than 10% of respondents saying they had been involved in it was an organised tree planting event. Respondents who had engaged in these activities were then asked to indicate whether this was at the named woodland site or somewhere else. Results were split more or less half and half (named woodland vs other woodland), although the activity "Been involved in or consulted about plans for creating, managing or using woodlands in your area" showed a higher percentage (74%) had engaged with this activity at the named woodland site (although note that this was still only 28 people). This was found to be statistically significant.

Table 6: Engagement with woodland activities

Activity	Yes	At named site	Somewhere else
Been litter picking in a woodland(s)	12.0% (60)	50.0% (27)	51.8% (29)
Been involved in an organised tree planting event	10.6% (53)	40.0% (18)	54.0% (27)
Become a member of a local community based woodland group such as a 'Community Trust' or 'Friends of' group	9.6% (48)	54.3% (25)	44.4% (20)
Been involved with a forest school event in woodlands	8.8% (44)	38.9% (14)	52.5% (21)
Been involved with a children's event in woodlands	8.6% (43)	48.6% (18)	46.2% (18)
Attended a one-off woodland management volunteering event	8.6% (43)	48.6% (18)	43.9% (18)
Attended any other type of organised event in the woodlands	8.4% (42)	47.5% (19)	50.0% (20)
Been involved in or consulted about plans for creating, managing or using woodlands in your area	8.2% (41)	73.7% (28)	34.1% (14)
Become a tree warden or wood warden for a local woodland(s)	8.2% (41)	51.4% (18)	36.1% (13)
Attended regular woodland management volunteering events	8.0% (40)	44.1% (15)	47.4% (18)

RQ2 What do local community members who have not visited the site (but are aware of the intervention) think about it and how it has come about?

As previously noted, there were 90 non-visitor respondents. These were split across the sites as detailed in table 7 below. Total numbers of respondents per named woodland / cluster ranged from 0 to 29.

Table 7: Location of non-visitor respondents

		N (non-visitors)	
NATIONAL FOREST SITES	Brookvale New Woodland	0	
	Queen Elizabeth Diamond Jubilee Woodland	5	
	Sence Valley Park	17	
	Old Parks Farm	29	
	National Forest total	51	
FOREST OF MARSTON VALE SITES 3 CLUSTERS- LABELLED C1, C2 C3	C1 Rectory Wood	0	C1 total 8
	Waypost Wood	8	
	C2 Wilstead Community Woodland	3	C2 total 9
	Shocott Spring	6	
	C3 Ridgeway Wood	4	C3 total 22
	The Kill	6	
	Buttons Ramsey	5	
	Green End Wood	4	
	Wiles Wood	3	
	Marston Vale total	39	

The socio-demographic characteristics of the non-visitors were as shown in table 8. Sixty three percent of non-visitors were over the age of 55, 54% were female, 82% were White, 62% were economically active (in full or part time employment, or self-

employed) and 26% were retired. Thirty seven percent of the non-visitors had lived in the area for more than 10 years, 30% had a dog, and 54% had access to a garden. Fewer non-visitors had a dog (-28%) and access to a garden (-28%) compared to visitors. There was a slightly lower percentage of White respondents (-7%), of retired people (-8%), and fewer respondents had lived in the area for more than 10 years (-20%). This has not been tested for significance because of low numbers.

Table 8: Socio-demographic characteristics of non-visitors

Variable	Category	N	Total	%
Age	18-34	12	90	13.3
	35-44	6	90	6.7
	45-54	15	90	16.7
	55-64	23	90	25.6
	65+	34	90	37.8
Gender	Female	48	89	53.9
	Male	41	89	46.1
Ethnicity	White British / Irish / Welsh / Scottish	74	90	82.2
	Not White	16	90	17.8
Employment status	Economically inactive (Student, Unemployed, Homemaker and Other)	11	90	12.2
	Economically active (Full time employed, Part time employed and Self employed)	56	90	62.2
	Retired	23	90	25.6
Education Level	GCSEs or equivalent	9	89	10.1
	A-Levels or equivalent	11	89	12.4
	Vocational qualification (e.g., NVQ, BTEC)	14	89	15.7
	Apprenticeship	8	89	9.0
	Higher National Certificate (HNC) / Higher National Diploma (HND)	19	89	21.3

Variable	Category	N	Total	%
	Higher education	17	89	19.1
	No formal qualifications	11	89	12.4
Approximately how long have you lived in the local area?	Less than 2 years	18	90	20.0
	More than 2 but less than 5 years	26	90	28.9
	5 to 10 years	13	90	14.4
	More than 10 years	33	90	36.7
Do you have a dog in your household?	Yes	27	90	30.0
	No	63	90	70.0
Do you have access to a garden (private or shared) or an allotment?	Yes	49	90	54.4
	No	41	90	45.6

Although the non-visitors had not visited their local woodland they were asked the question "In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces?" (table 9). Thirty eight percent said 'a few times a week', the next largest category was 'once a week' (22%) and then 'once or twice a month' (21%).

Table 9: Average time spent in greenspace in the last 12 months – non-visitors

Variable	Category	N	Total	%
	Every day	4	90	4.4
	A few times a week	34	90	37.8
In the last 12 months, how often, on average, have you spent free time outside in green and natural spaces?	Once a week	20	90	22.2
	Once or twice a month	19	90	21.1
	Once every 2-3 months	5	90	5.6
	Once every 6 months or less often	4	90	4.4
	Not at all	4	90	4.4

Non-visitors were also asked whether they thought it was a good thing that trees had been planted at the woodland to create young woodland. Eighty eight percent of non-visitors said they thought it was a good thing. This compares to 98% of visitors.

Non-visitors were asked for their reasons for not visiting the woodlands. This was asked as an open-ended question and responses coded to a themed category. The results are presented in figure 2, which shows that the most frequently mentioned reasons were "I'm too busy" and "I have poor mobility".
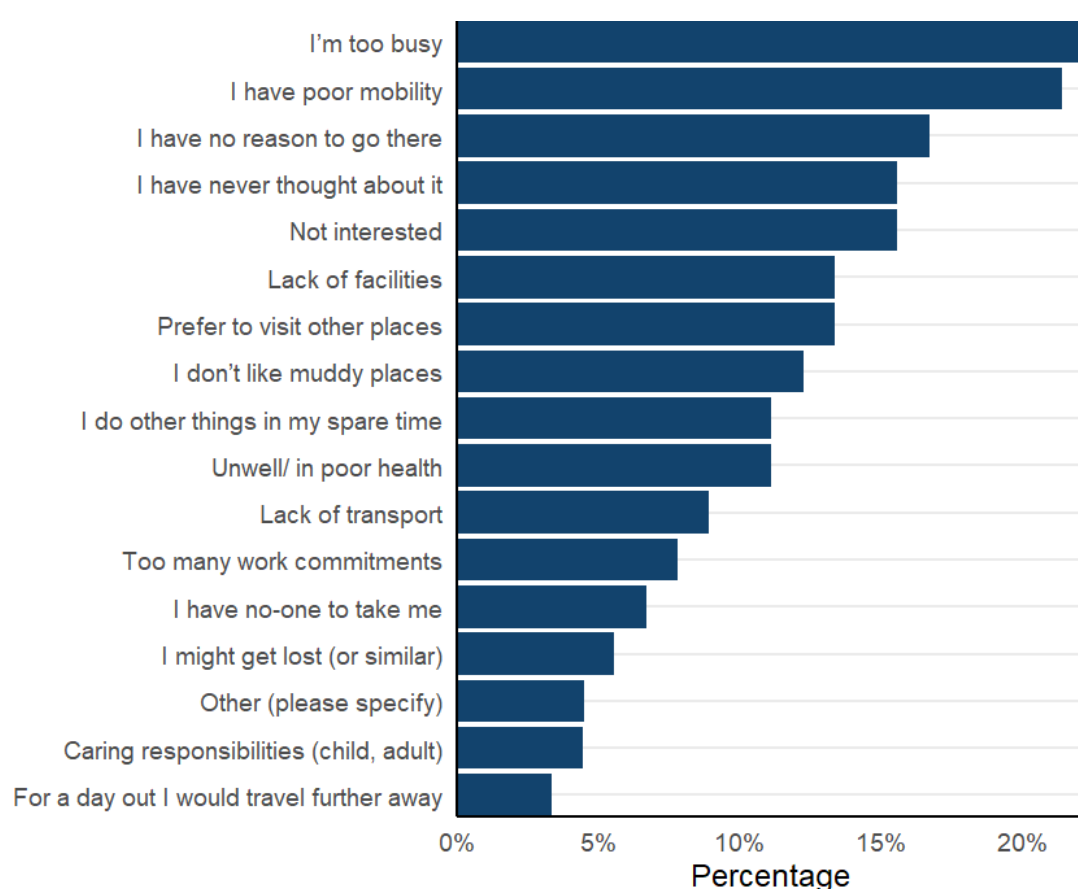
Figure 2: Reasons for not visiting young woodland

Analysis was carried out to see whether certain types of respondents were more likely than others to have specific reasons for not visiting. However, because of small numbers of non-visitor respondents it was only possible to analyse those reasons with more than 20% of the sample (the top two reasons mentioned above). Results

showed that males and retired people were more likely to say that poor mobility was the reason why they did not visit the woodland. These were the only statistically significant findings from this part of the analysis.

Non-visitors were asked to agree or disagree with a number of statements about the local woodlands (even though they stated they had not visited they may have had an opinion in relation to some of the statements) (figure 3). These 10 statements were also asked of visitors (alongside 12 additional statements) and have been reported above (see figure 1). Figure 3 shows that the two statements with the highest level of agreement from non-visitors (86%) were: 'The woodland helps protect the area from over-development'; and 'The woodland is good because it is important to plant more trees'. The two statements with the highest level of disagreement were: 'I worry about anti-social behaviour taking place in the woodland' (54%) and 'In autumn the leaves make a mess on the pavements around the area' (34%).
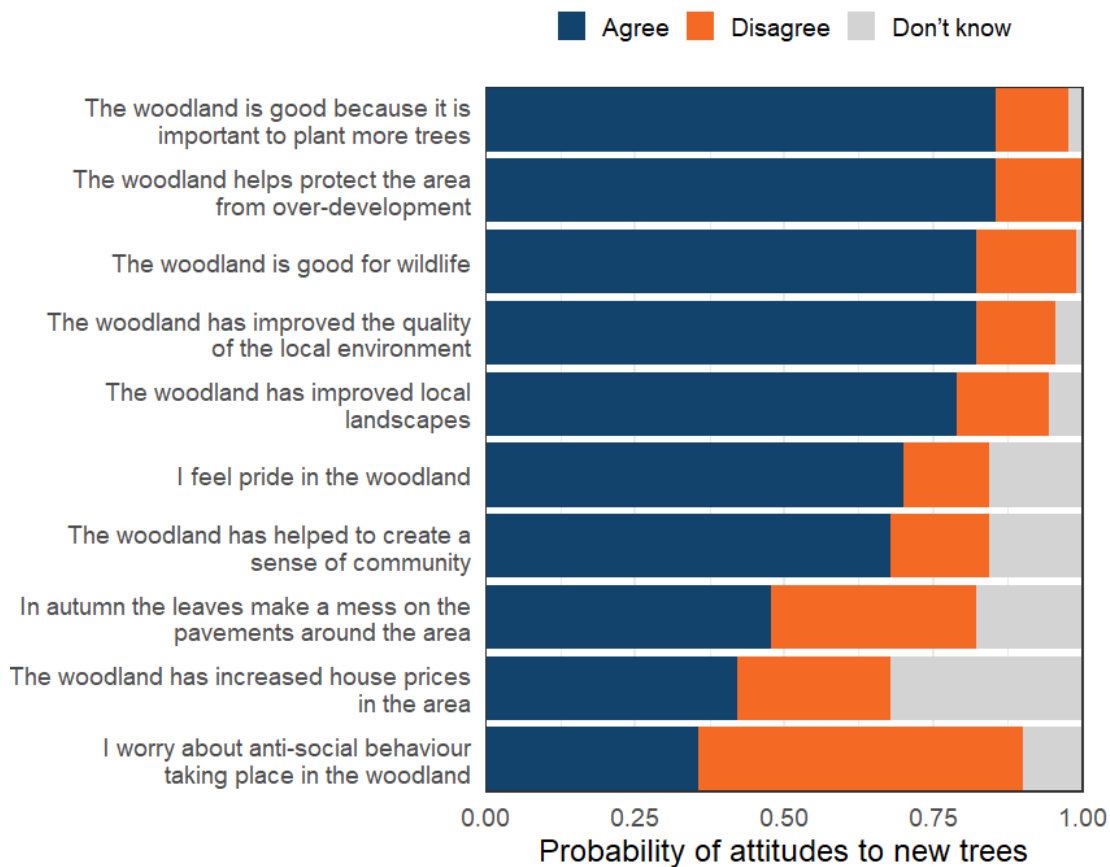
Figure 3: Attitudes to the local woodland – percentage of non-visitors agreeing or disagreeing

These results were analysed to see if different types of respondents felt differently about the woodland. For this analysis, "Don't know" answers were excluded and only those statements where the 'Disagree' answer was more than 20% of the responses were included. A number of statistically significant differences were found (figure 4).

Less frequent visitors to greenspace were more likely to agree that the woodland had increased house prices, that the leaves made a mess on the pavements, and were more likely to say they worried about anti-social behaviour in the woodland.

People with access to a private or shared garden, people who had lived in the area for longer, and people without a dog were more likely to agree that the autumn leaves made a mess on the pavement.
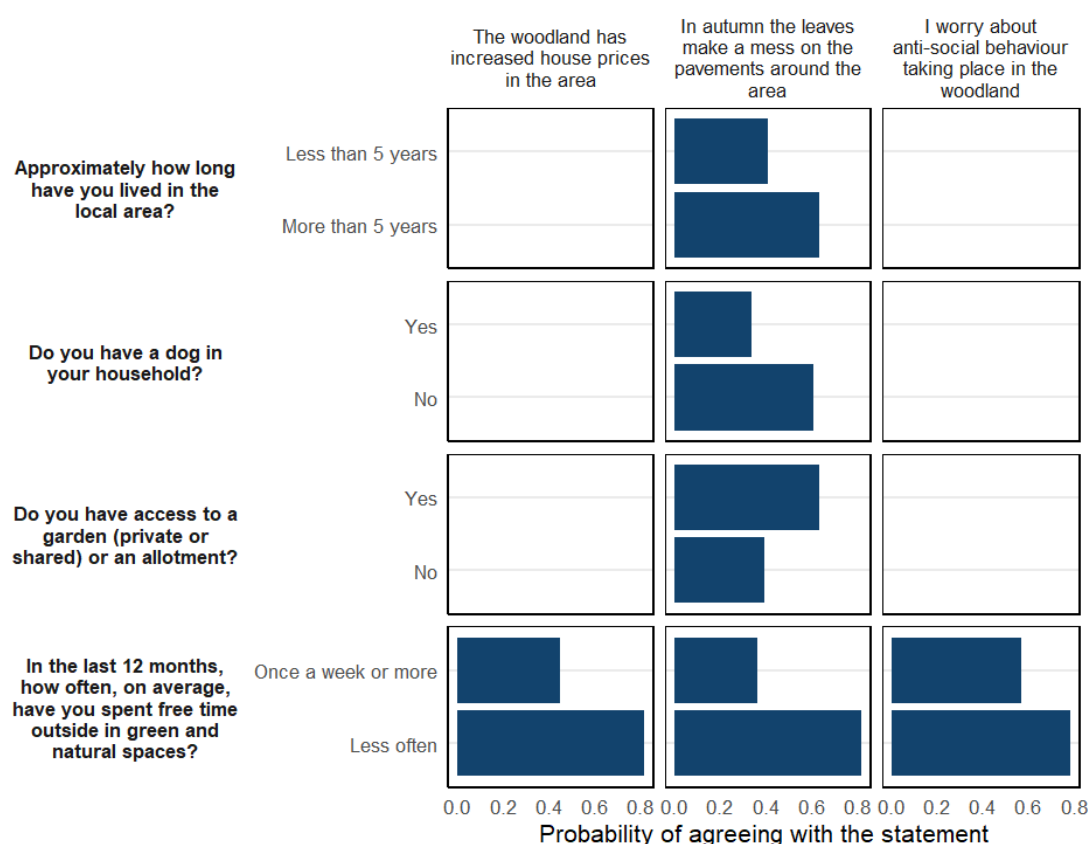
Figure 4: Attitudes to the woodland sites according to socio-demographics (non-visitors)

Eight percent of non-visitors stated that they were aware of a consultation or other opportunity to engage with the planning or management for the new site / tree planting. Of those, 38% (three people) got involved. Fifteen percent of the non-visitor sample said they would have liked to have had the opportunity to be involved. Further analysis was not conducted due to insufficient data. Further, 19% of non-visitors stated they were aware of organised volunteering or social activities that had happened at the woodland.

RQ3 What impacts has the intervention had on local community members who visit/engage with the site?

The main activities that visitors undertook when they visited the woodlands were dog walking (42%) and walking without a dog (35%). A further 9% went running or jogging (table 10). Eighty two percent of visitors did that activity about the same amount as before the new trees were planted, with 14% doing the activity more since new trees were planted.

Table 10: What is the main activity that you do when you visit

Activity	N	%
Dog-walking	210	42.17
Walking (without a dog)	173	34.74
Running or jogging	45	9.04
Wildlife watching	19	3.82
Cycling	14	2.81
Playing with children	14	2.81
Picnicking / eating outside	12	2.41
Climbing trees	4	0.80
Woodland crafts	3	0.60
Organised activity e.g. ranger event	2	0.40
Other	2	0.40

Visitors to the site were asked to indicate what was their main reason for visiting. The most frequent response was 'for physical health and exercise' (46%), with the second most frequent being 'To take a break, get fresh air' (24%), then 'For mental health and wellbeing' (12%) (figure 5).
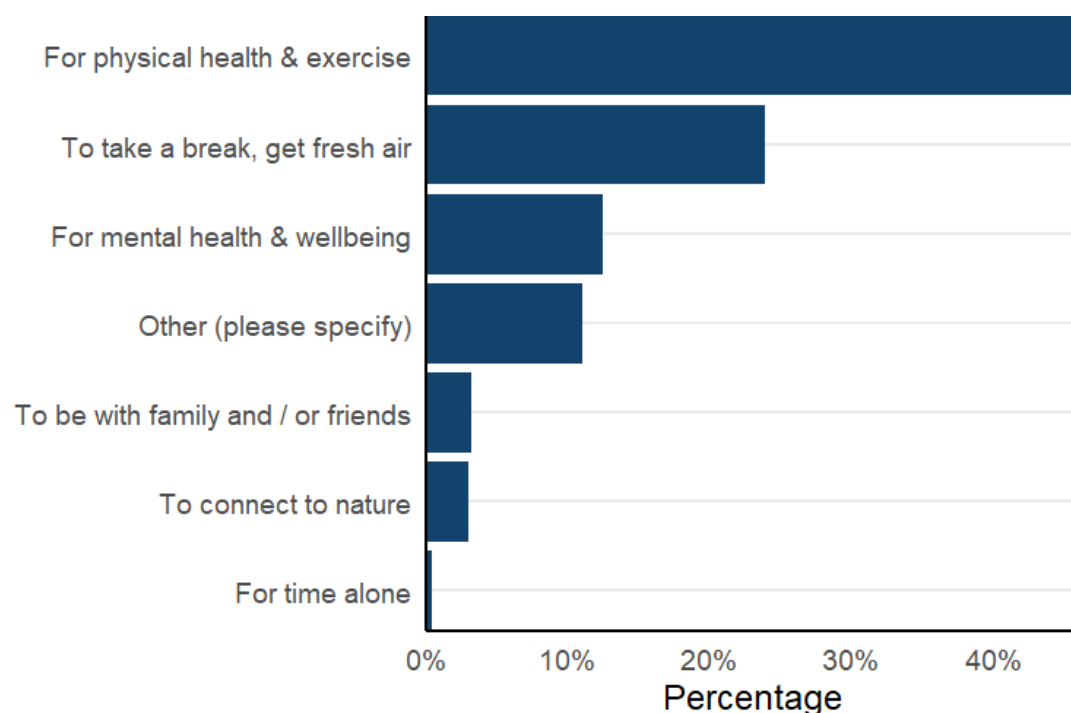
Figure 5: Main reasons to visit woodlands

So that these responses could be analysed for differences between respondents, reasons with less than 9% of responses were collapsed so the main categories included in further analysis were "For physical health and exercise"; "to take a break, get fresh air"; "for mental health & well-being" and "other". Results are shown in figures 6 and 7.

There were a number of variables significantly related to the main reason people said they visited the woodland: ethnicity, employment, education, length of time living in local area, having access to a garden, frequency of visiting the woodland, and average time spent in greenspace in last 12 months.
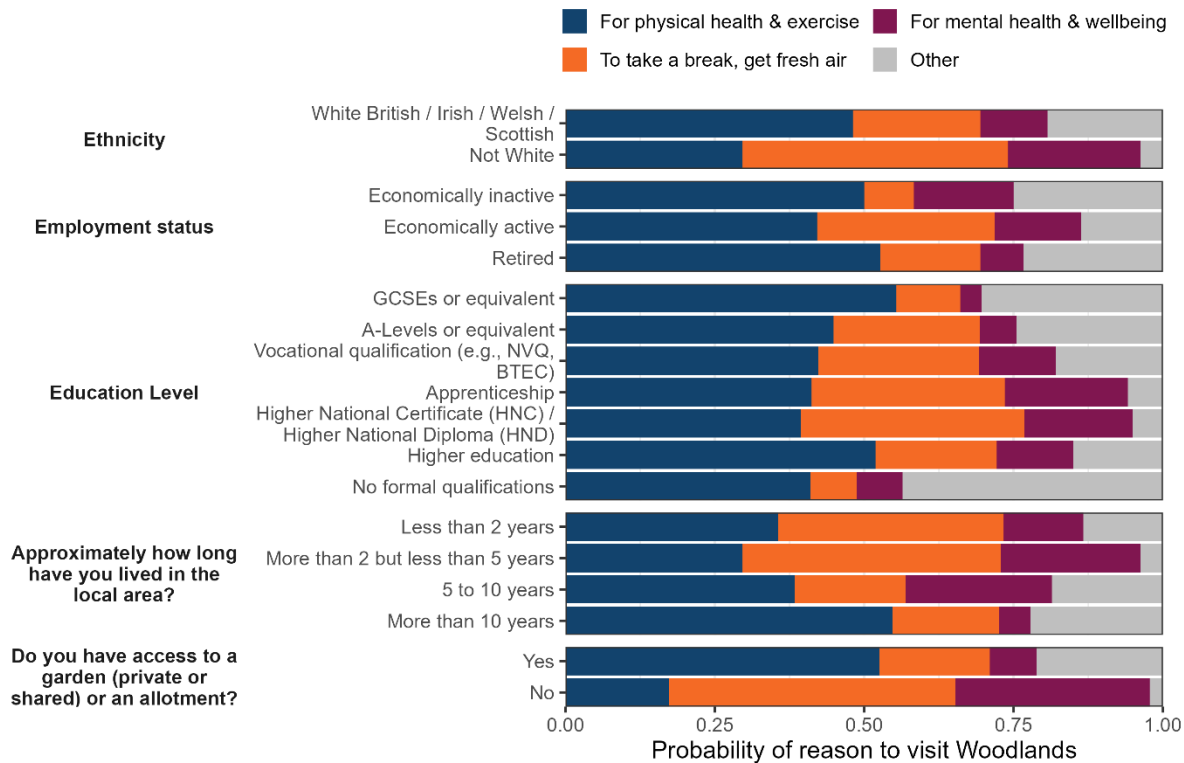
Figure 6: Reason to visit woodland according to socio-demographics
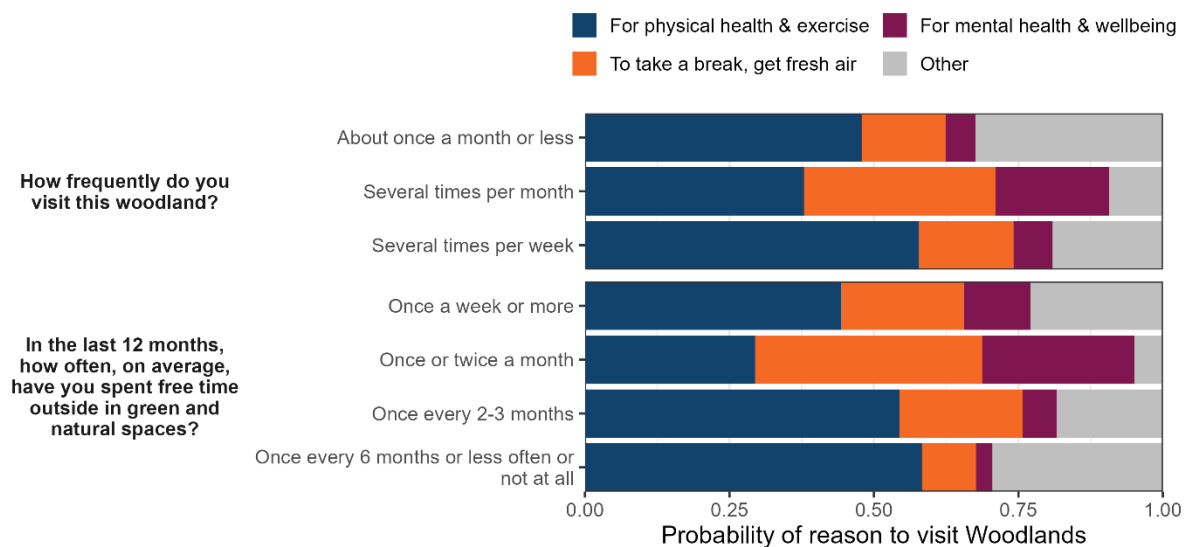
Figure 7: Reason to visit woodland according to visit frequency

RQ3 & RQ4

RQ3 What impacts has the intervention had on local community members who visit/engage with the site?

RQ4 What impacts, if any, has the intervention had on local community members who have not visited (but are aware of the intervention)?

To answer these two RQs the results from both visitors and non-visitors are considered together. Results are presented relating to self-reported mental and physical well-being, and responses to questions relating to the respondents' opinions of the social and cultural value of young woodland and newly planted trees in the local area. These were analysed to look for differences according to socio-demographic characteristics and visit frequency (including no visits). Refer to table 11 for the visit frequency results used for this part of the analysis.

Table 11: Frequency of visit to woodland, including 'do not visit'

	N	%
Do not visit	90	15.3
About once a month or less	117	19.9
Several times per month	235	39.9
Several times per week	147	25.0

Table 12 shows the overall participant responses to the four self-reported questions about well-being. Overall, respondents reported moderate to strong feelings of: satisfaction with their life, happiness (yesterday) and their life being worthwhile. Responses to 'Overall how anxious did you feel yesterday?' were more evenly spread across the scale. A smaller proportion of respondents answered the question about how anxious they felt yesterday.

Table 12: Responses to four questions about personal feelings about their life

response	Overall to what extent do you feel that the things you do in your life now are **worthwhile**?	Overall how **happy** did you feel yesterday?	Overall how **satisfied** are you with your life these days?	Overall how **anxious** did you feel yesterday?
0 - Not at all	0.5% (3)	0.0% (0)	0.0% (0)	0.0% (0)
1	0.0% (0)	0.2% (1)	0.0% (0)	12.9% (56)
2	0.0% (0)	0.0% (0)	0.0% (0)	12.7% (55)
3	0.2% (1)	0.2% (1)	0.0% (0)	14.1% (61)
4	0.0% (0)	0.5% (3)	0.2% (1)	13.8% (60)
5	3.6% (21)	2.5% (15)	3.1% (18)	9.2% (40)
6	5.4% (32)	4.1% (24)	3.1% (18)	4.1% (18)
7	13.9% (82)	13.6% (80)	11.1% (65)	8.5% (37)
8	36.7% (216)	37.7% (222)	44.4% (261)	16.1% (70)
9	21.1% (124)	21.7% (128)	18.2% (107)	6.9% (30)
10 – Completely	17.7% (104)	18.7% (110)	19.7% (116)	0.0% (0)
Don't know	0.7% (4)	0.5% (3)	0.2% (1)	0.9% (4)
Prefer not to say	0.3% (2)	0.3% (2)	0.2% (1)	0.7% (3)
Total	100.0% (589)	100.0% (589)	100.0% (588)	100.0% (434)

Statistically significant differences to self-reported wellbeing by sociodemographic variables and frequency of visits to the named woodlands are shown in figures 8, 9 and 10.

Respondents reporting highest levels of happiness were those who visited the woodland most frequently and those in 30-40 year age category (figure 8).
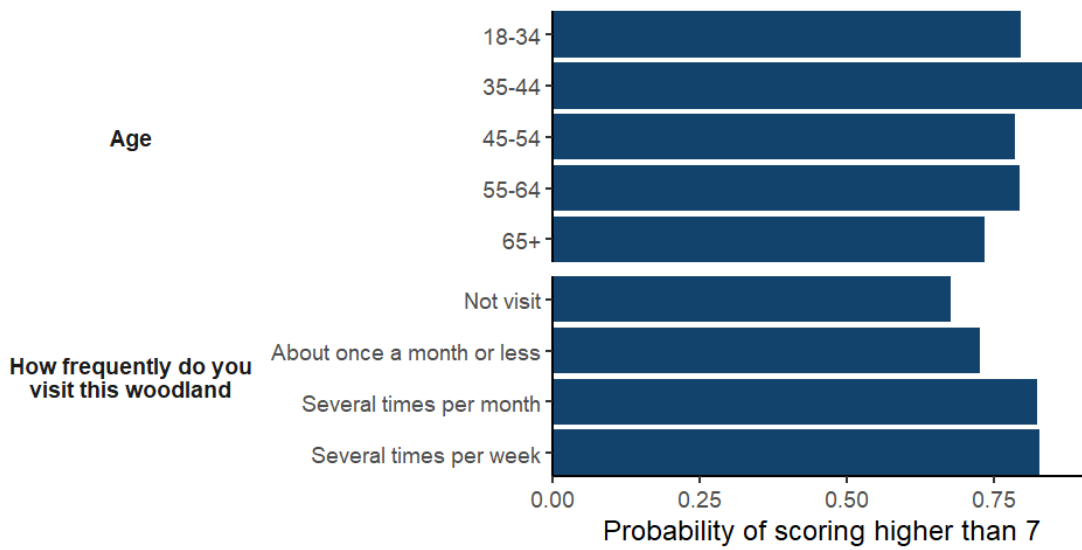
Figure 8: Probability to score higher than 7 in the happiness scale according to key variables

The highest life satisfaction was reported by those who visited more frequently; and those with a dog (figure 9).
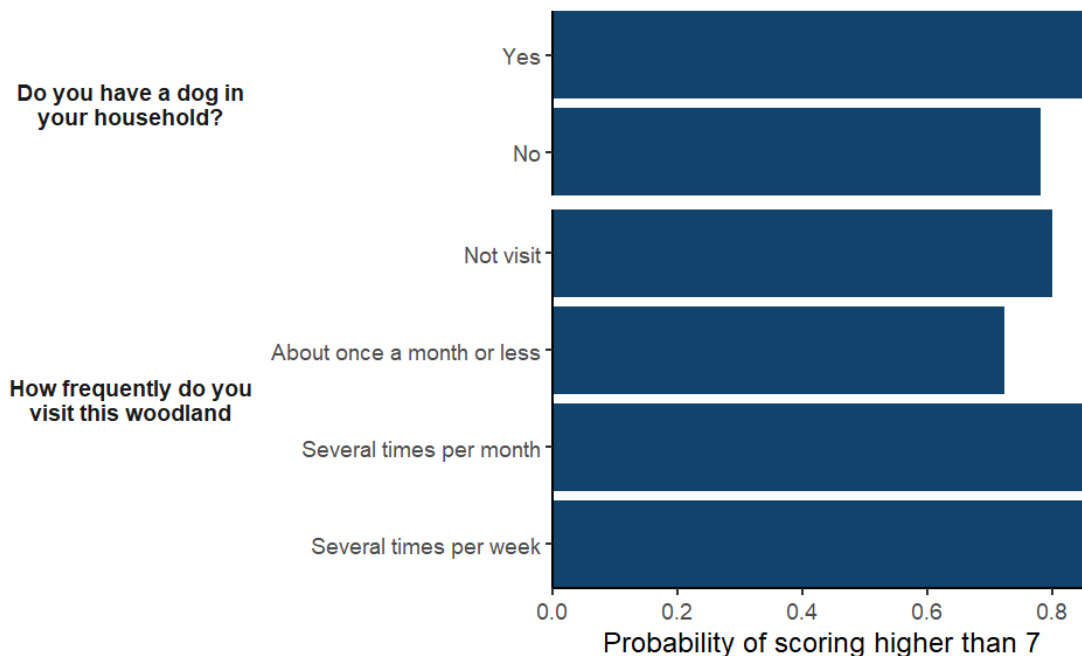
Figure 9: Probability to score higher than 7 on the life satisfaction scale according to key variables

People reporting the highest feelings of life being worthwhile were 30-40 year olds; those with a dog; those with access to a garden; and those who visited the woodland most frequently (figure 10).
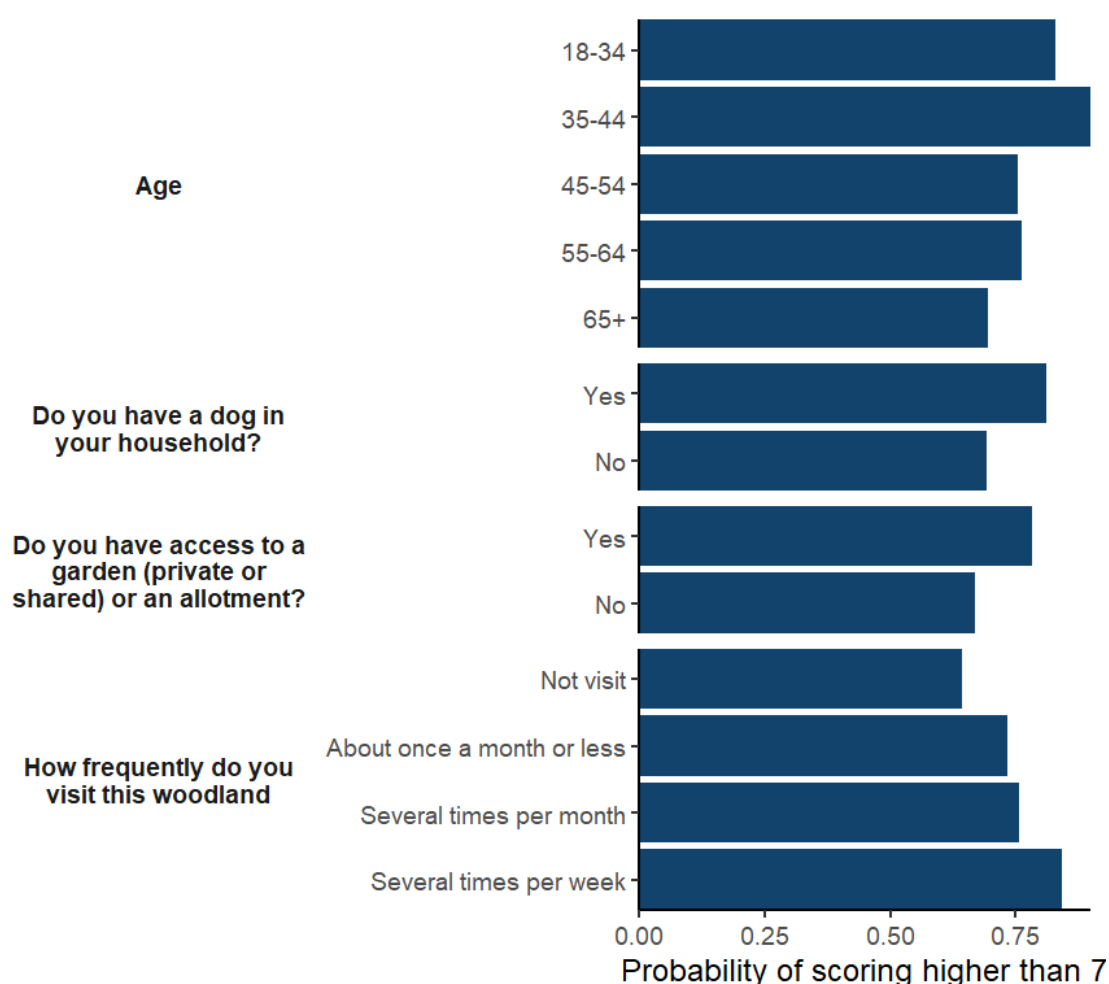
Figure 10: Probability to score higher than 7 on the life worthwhile scale according to key variables

The highest level of reported anxiety was from those who never visit the woodland. Respondents were asked to indicate how good they felt their health is. Results are in table 13 and show that 64% reported their health to be good.

Table 13: In general, would you say that your health is…

	N	%
Very good	124	21.05
Good	375	63.67
Fair	80	13.58
Bad	7	1.19
Very bad	2	0.34
Prefer not to say	1	0.17

These results were tested to see if there was a significant difference in self-reported health between different socio-demographic groups. Self-reported health was likely to be worse in the over 65s; retired people; those with no formal qualifications; and those with no access to a garden (figure 11).
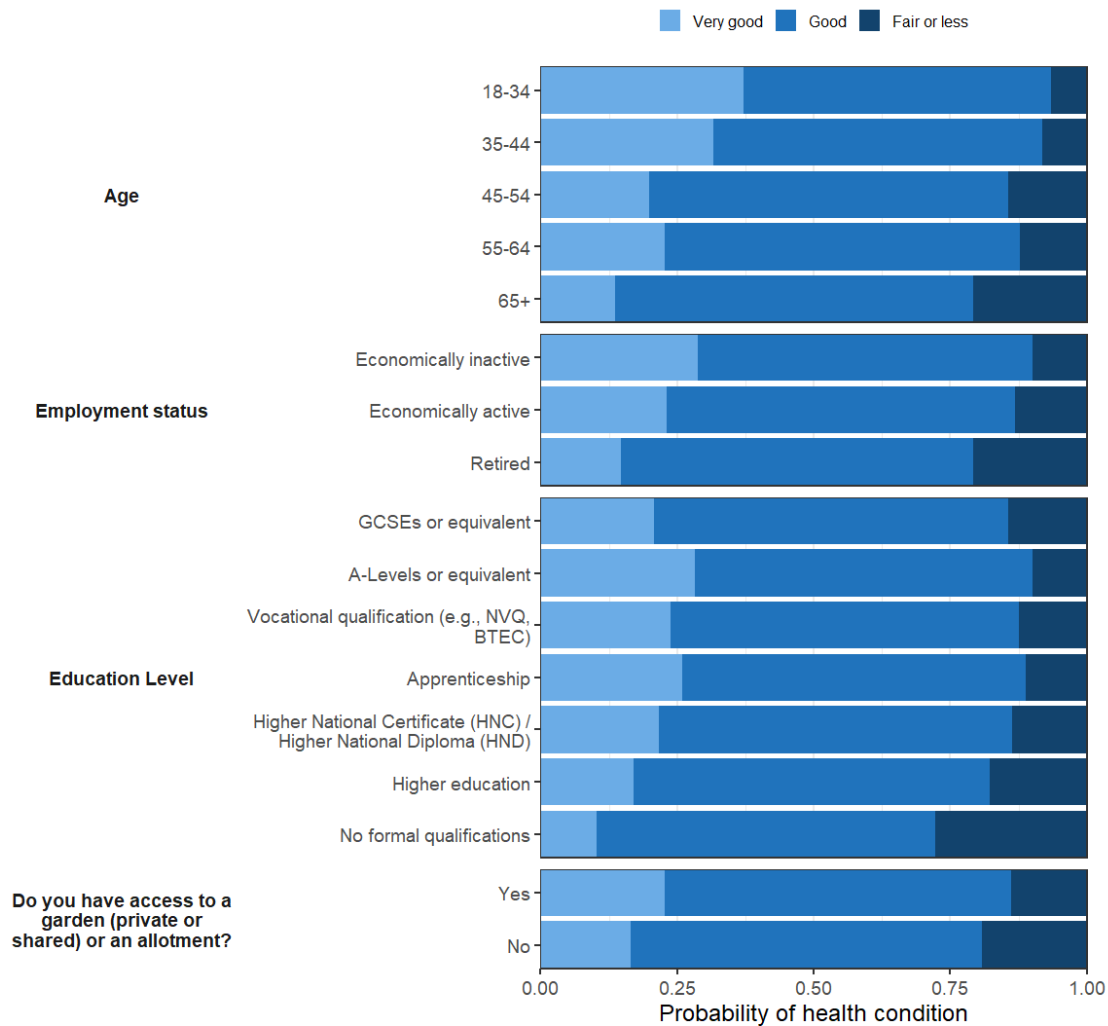
Figure 11: Self-reported state of health according to key variables

All respondents were asked for their level of agreement with 17 statements about the social and cultural value of young woodland and newly planted trees in their local area. The statements with the highest level of agreement were: "they are important for wildlife" (64%) and "they make me notice the changing seasons" (59%) (figure 12).
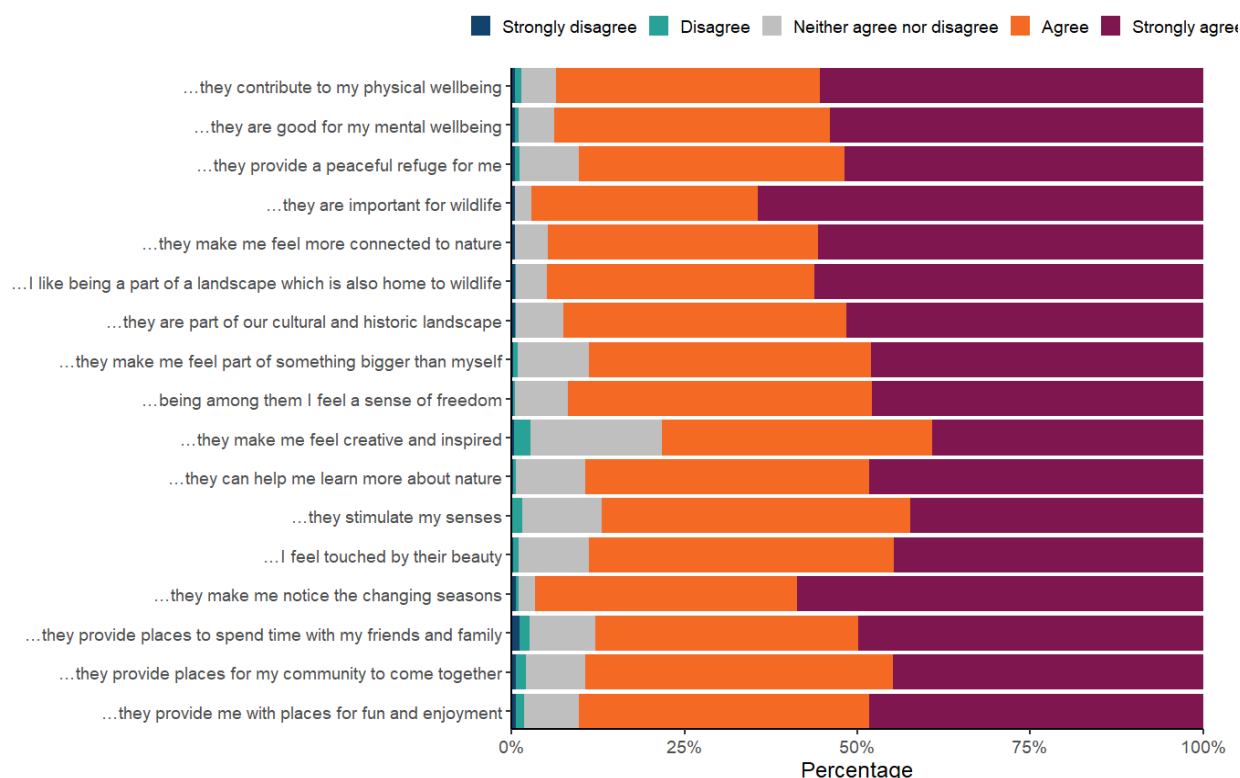
Figure 12: Social cultural value statements – whole sample. "I value young woodland and newly planted trees in my local area because…"

Statistically significant differences in agreement scores by sociodemographic variables and frequency of visits to the named woodlands are shown in Figure 13.
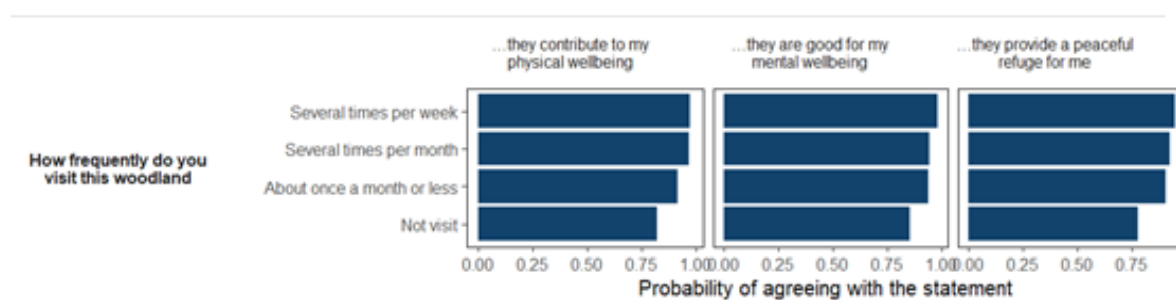
Figure 13: Estimated probabilities for significant variables in relation to social values

These results were compared to a national (England-wide) study that used the same list of 17 statements about social and cultural values (including two additional statements) but asked people for their agreement in relation to their local trees, woods and forests in general. Table 14 shows that all statements were scored

significantly higher (more positively, with a higher level of agreement) in this study than the earlier national study. The overall score across statements was also higher (figure 14).

Table 14: Comparing level of agreement with 17 statements relating to social and cultural values of trees.

Statement	statistic	p.value	parameter
…they contribute to my physical wellbeing	222.24	0.00	4
…they are good for my mental wellbeing	192.30	0.00	4
…they provide a peaceful refuge for me	180.80	0.00	4
…they are important for wildlife	173.61	0.00	4
…they make me feel more connected to nature	200.66	0.00	4
…I like being a part of a landscape which is also home to wildlife	211.92	0.00	4
…they are part of our cultural and historic landscape	188.86	0.00	4
…they make me feel part of something bigger than myself	245.17	0.00	4
…being among them I feel a sense of freedom	215.74	0.00	4
…they make me feel creative and inspired	255.35	0.00	4
…they can help me learn more about nature	235.24	0.00	4
…they stimulate my senses	195.32	0.00	4
…I feel touched by their beauty	184.68	0.00	4
…they make me notice the changing seasons	210.87	0.00	4
…they provide places to spend time with my friends and family	208.14	0.00	4
…they provide places for my community to come together	434.15	0.00	4
…they provide me with places for fun and enjoyment	240.91	0.00	4
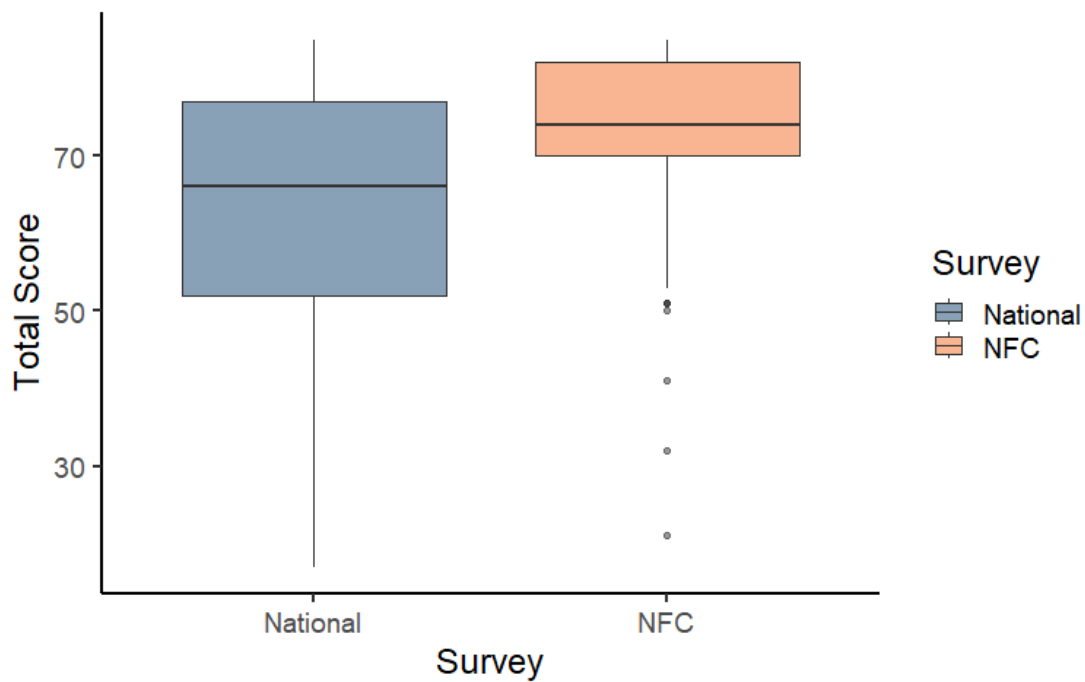
Figure 14: Overall score of social and cultural value statements, showing the difference in overall score between the two studies. (note: NFC = NCF)

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Results & discussion: qualitative

Appendix 10

Berglind Karlsdóttir, George Murrell, Elliot Colley & Beth Brockett

Forest Research is the Research Agency of the Forestry Commission and is the leading UK organisation engaged in forestry and tree related research.

The Agency aims to support and enhance forestry and its role in sustainable development by providing innovative, high quality scientific research, data, technical support and consultancy services.

Table of Contents

"…if you plant a tiny seed and see it growing into a full-fledged plant, that is something miraculous in my opinion. To plant a small tree, to see it grow into a mighty oak or a horse chestnut or whatever it may be, it's bound to be impressive. It is to me anyway." (Richard)

This document forms part of the reporting for the mixed methods longitudinal research into Mapping the social benefits of woodland creation and expansion. It provides the full results and discussion from the qualitative element of the research. A summary of these findings can be found in the main report.

1 A Case Biography Approach

The following results and discussion are structured using a case biography approach (Thomson, 2007; Butler *et al.*, 2014; Shirani *et al.*, 2015) see separate methods report for more detail. While the questionnaire survey results demonstrate that people benefit from the new tree planting sites, the case biography approach focuses on exploratory case studies which give insights into *how* and *why* people experience these benefits. As such, a small number of cases, or participants, are used as the basis for reporting, one by one. Case studies are presented using the context of the person, focusing on the detail and complexity of each case (cf Thomson 2009) (Shirani *et al.*, 2015). We then draw on accounts from other cases to demonstrate how the case biographies are situated within the wider dataset. The sample used for the case biographies can be seen in table 1.

Table 1. The research sample. The four participants chosen as cases for the biographies are highlighted in grey.

Pseudonym	Location	Age	Gender	Occupation	Dog ownership
Katherine	Forest of Marston Vale	65+	Female	Looking after house/ children/ other caring responsibilities	No
Anne	Forest of Marston Vale	65+	Female	Retired	No
Edgar	Forest of Marston Vale	65+	Male	Self-employed	No
Richard	Forest of Marston Vale	65+	Male	Retired	No
Lucy	National Forest	45-54	Female	Full-time employment	Yes
Joe	National Forest	25-34	Male	Self-employed	Yes
Lindsay	National Forest	55-64	Female	Self-employed	Yes
Isabel	National Forest	55-64	Female	Full-time employment	Yes
Rhi	National Forest	55-64	Female	Retired	Yes

We have chosen to integrate our thematic analysis within the case studies, using the themes as sub-headings to structure the case biographies. As the case biographies present a lot of data, this helped us structure that data in a meaningful way which speaks to the research questions. For each case, we chose a small number of themes which the case particularly spoke to. The themes were chosen to ensure both representation of common themes emerging from the wider dataset, as well as themes which were less common but provided unique insights. The themes chosen from the thematic analysis were:

- Experiencing change and sensing variety in new woodlands. This theme addresses the ways in which newly planted woodlands are experienced in unique ways compared to existing, mature woodlands. This includes accounts of differing sensory experiences and variety, but also of the experience of observing changes over time. It also provides accounts of how management approaches affect this experience.

- Stewardship of new planting: The way in which people feel responsibility towards the woodlands and any behaviours that result from this. This theme also describes what leads to this sense of stewardship for each person, such as sense of place and belonging.

- Protection from development: Many participants were concerned about the expansion of built development in their local area and newly planted woodlands were seen to enhance the protection of these sites from development

- Opportunities for learning: Explores how new woodlands provide opportunities for learning and stimulate curiosity, likely as new woodlands experience a faster rate of change.

- Sense of safety: This explores the extent to which people feel safe, or not, in new woodlands.

- <u>Finding hope and resilience in new woodlands</u>: Accounts of how planting trees and observing their growth can help instil feelings of hope, optimism and build resilience to life's difficulties.

These identified themes are also referenced in current literature on how people connect with and experience places. Here we will provide an overview of related theories and concepts. The relationships between these theories are then explored in detail in the case biographies.

2 Literature review – summary of relevant theories

2.1 How people connect with natural spaces and links to environmental stewardship

2.1.1 Sense of place

This concept relates to the relationship between humans and places (Erfani, 2024), and how they feel in and about specific places. The concept variably includes the components of place attachment, place dependence and place identity. It is a "*a dynamic concept that varies in time and space. Individuals may develop different senses of place at different stages of their lives and in various socio-cultural settings*". Recent studies have also linked the importance of memories to building sense of place (Ratcliffe & Korpela, 2016; Gottwald et al., 2021).

2.1.2 Sense of belonging

Sense of belonging has been defined as "*… the experience of personal involvement in a system or environment so that persons feel themselves to be an integral part of the system of environment*" (Hagerty et al., 1992, p.173). In this sense it is has some overlaps with the concept of sense of place but is broader as it is not necessarily place-specific.

2.1.3 Connection to nature

Connection to nature describes "*an individual's subjective sense of their relationship with the natural world*" (Pritchard et al., 2020 p.1145) and is rooted in theories about human evolution in nature and how we are not 'designed' for spending most of our time indoors. A link has been found between connection to nature and wellbeing, including personal growth (Capaldi et al., 2014; Pritchard et al., 2020). Connection to nature also appears to affect pro-environmental attitudes and concern for human impacts on nature (Mayer & Frantz 2004; Nisbet et al., 2009). And conversely, people who are disconnected from nature tend to undertake less

pro-environmental behaviours (Barrable and Booth, 2022). One interview study found that disconnectedness from nature and social isolation appeared to be related (Sibthorpe and Brymer, 2020)

2.1.4   Environmental stewardship

Environmental stewardship is "*the actions taken by individuals, groups or networks of actors, with various motivations and levels of capacity, to protect, care for or responsibly use the environment in pursuit of environmental and/or social outcomes in diverse social-ecological contexts*" (Bennett et al., 2018, p.599). There are two subcategories of intrinsic motivations for environmental stewardship:

1. The first is rooted in ethics around care and a desire to do the right thing (Bennett et al., 2018). Studies have demonstrated this in terms of sense of place (place attachment, place meaning, placemaking and place relations; Bleam 2018, Gottwald & stedman, 2020, Enqvist et al., 2017, Sen & Nagendra, 2020) connection to nature (Merenlender et al., 20106), a desire to help the environment (Ding & Schuett 2020, Ganzevoort & van den Born, 2020, Ryan et al., 2001), feelings of ownership and responsibility (Peck et al., 2021) altruistic concerns for others and for future generations (Bennett et al., 2018), and sense of belonging (Bramston et al., 2011).

2. The other subcategory is based on the need for self-determination or self-actualisation. Self-determination relates to a person's ability to grow and become what they perceive to be the best version of themselves. Three components contribute to this – autonomy, relatedness and competence (Ryan and Deci 2000; Cetas and Yasué 2017). Bennett et al. (2018) outline that "*Autonomy refers to the desire to be able to affect one's own future, relatedness is about feeling connected or belonging to a group, and competence refers to the feeling of being able to act and to achieve one's goals*" (Bennett et al., 2018). Studies have shown motivations in terms of self-determination and hedonic experience (Reo et al., 2017, Strzelecka et

al., 2018) and personal learning (Bramston et al., 2011, Ding & Schuett, Merenlender et al., 2016, Ryan et al., 2001).

Extrinsic motivations for environmental stewardship also exist and include health and wellbeing benefits (Takase et al., 2019). For a comprehensive review of actions and motivations, see McLeod et al., 2024.

2.2 Perceptions of nature and its attributes and links to mental health benefits

2.2.1 Perceptions of nature

Our findings also speak to how preferences for different management approaches are perceived and the resulting 'feel' of the sites. Early studies identified a link between naturalness and aesthetic preference (Kaplan, Kaplan & Wendt, 1972; Lamb and Purcell, 1990). A more recent study on wellbeing benefits from spending time in 'wild' and 'tended' forests did not support this, demonstrating greater positive affect and pleasure and reduced negative affect in 'tended' forests (Martens et al., 2011) although others have found preferences for a natural and wild appearance of forests with diverse vegetation (Stigsdotter et al., 2017). Another study showed that physiological stress is lowest in forest interiors with medium to tall vegetation as opposed to forest exterior and low vegetation (Chiang et al., 2017).

It is generally accepted that improvements to wellbeing from spending time in greenspaces is positively affected by biodiversity (Carrus et al., 2015). One study has more specifically demonstrated a relationship between perceived naturalness of green infrastructure and perceived plant and invertebrate biodiversity value, aesthetic appreciation and restorative effects of these places (Hoyle et al., 2019). Participants with higher levels of nature connectedness perceived greater levels of naturalness in the planting at the green infrastructure sites.

2.2.2   Restoration in nature

The case biographies explore psychological benefits of experiencing change and variety. A large body of literature exists on the cognitive and other mental benefits of spending time in nature. For example, attention restoration theory (Kaplan and Kaplan, 1989) postulates that nature helps replenish fatigued directive attention. Another study has demonstrated a link between aesthetic preference and positive benefits in terms of restorative potential, with this restorative potential specifically influenced by density of trees, colourful flowers and water, but not by fish and birds (Wang et al., 2019).

2.2.3   Hyper-locality of greenspaces

Natural England's Green Infrastructure Standards for England (Natural England, 2023) recommend a target of access to good quality green and blue spaces within 15 minutes' walk from their home in order to minimise inequalities in access to nature and maximise benefits across society. This target has been integrated into the Government's Environmental Improvement Plan (2023)[1]. Our results speak to the particular importance of living in close proximity to newly planted woodlands.

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[1] Environmental Improvement Plan (published under the previous government)

3 The Case Biographies

3.1 Anne

"I would show you my lockdown sketchbook […] that took us right the way from the beginning of lockdown, through to October, when I ran out of paper […]. It showed the weather. It showed the change in the trees, from the catkins on the trees, through to the full leaf and through the different flowers, at the end of the year, the fungi, and all these things; things that we bump into all the time when we're walking."

Anne is a retired woman who lives locally to one of the Forest of Marston Vale woodlands, Rectory Wood. She lives with her husband and they visit the woodland together daily. Anne is one of twelve children and grew up on a farm. From her early childhood, Anne disliked being stuck inside. She spent a great deal of time outdoors, often roaming alone with her dog, as her brothers helped with the farmwork – something she was envious of. Her relationship with nature has been important throughout her life and she draws parallels between her time spent wandering on the farm as a child and being keen to explore her local woodlands in adulthood.

Although Anne's life got busier when she had children, she maintained a relationship with nature; it was a free thing to do to entertain her children. Now, in her retirement years, Anne continues to get out into nature daily, regardless of the weather, as she feels it keeps her in good physical and mental health, citing visits as being 'good for the soul'. Anne notes feeling frustrated when she does not manage to get out and links this to similar feelings of frustration when she had to be indoors as a child.

Anne feels her relationship with nature has grown as she has aged and her case illustrates how people's relationships with nature and the ways in which they value

nature can change over time – first through exploration during childhood, then for socialising with her children, and later in life to maintain her health.

Anne's life is intrinsically linked to nature. She is an artist and art teacher who often paints nature scenes, an avid gardener, and a volunteer 'wood warden' for the Forest of Marston Vale Trust. In the below themes we will further explore her relationship with the local woodlands and the impacts this has on her daily life.

3.1.1 Experiencing change and sensing variety in new woodlands

Anne feels that woodlands are an important part of the local landscape and she wouldn't want to live somewhere without them. She considers herself an adventurer. Her desire to explore is expressed through regularly following newly discovered paths in the woodland. Anne is interested in observing how the woodland develops over time. Her interviews display a strong element of observation and reflection on time through observing the growth of the new woodlands and the changing seasons in it. On one occasion she notes how the new tree planting has encouraged a particular species of bird, which she was able to identify. She similarly mentions how she had compared the leaf colours in the woodland with photos of the woodland from the same time the previous year. Anne appears to make a clear link between paying close attention to the woodland, observing changes within it and her personal wellbeing, mostly in terms of affect or emotional states: *"Well, it's uplifting, isn't it? I think, especially so, the new planting, because we see progress, because we see it changing."*

Throughout the interviews, she focuses on the value of 'variety' in terms of sensory experiences. She recounts the different sensations the woodland brings as it grows, and comments how it is now more of a woodland than a 'plantation'. The new woodland is experienced differently to other woodlands due to its unique characteristics. Anne describes it as more uplifting as it lets in more light. Such sensory differences in experiencing new versus mature woodlands are addressed by most interviewees, such as Joe who describes in detail the differences between the

diffused, changing light in a mature woodland versus the constant, bright light in a new woodland and Lindsay who describes feeling more energised and walking faster in new woodlands. Other respondents also describe the new woodlands and their experiences in them as uplifting, bringing a sense of freshness (Katherine, Isabel). Meanwhile, the established woodlands are seen more as places for contemplation: *"I feel differently when I'm in the old woodland, to the new woodland…I can stand in The Thrift [mature woodland], and just lose myself. Because you're immersed, you're totally immersed in this huge canopy of trees, and all these sounds."* Overall, the interviewees expressed no strong preference for new woodlands or mature woodlands, but rather an appreciation of having the opportunity to visit both and the different experiences they bring.

Anne expresses some mixed emotions about anticipated changes. She recognises that views at the top of the hill in the woodland will disappear as the trees grow taller, stating in the second interview that "*I think, it's hard, because there's part of me that loves the views that we get. And those views are beginning to disappear*". While she appears to be more resigned to this change in the third interview: *"Whereas at one time, when these were small saplings, we still had a view, for one thing. (Laughter) I do miss the view, but you just- it's swings and roundabouts, isn't it?"*.

3.1.2 Stewardship of new planting

Anne is a volunteer wood warden at the Forest Centre with her husband. This role includes reporting anything 'out of order'. Anne also litter picks and has set up a Facebook page for Rectory Wood which now has over 400 members. Anne expresses a sense of ownership which has a protective and, in her own words, a somewhat 'possessive' nature:

"I think I'll probably get more possessive. (Laughter) You almost feel, because you walk down there every day, and you almost feel like it's a personal slight if somebody's put some litter on the ground, or vandalised the tree."

These feelings are echoed by another respondent (Katherine) who similarly likes to 'keep an eye' on the woodland and pick up litter there. She reports a similar possessive feeling, describing the woodland as 'partly mine'. In this case, they attribute feelings of ownership to their role as a volunteer, as well as their experiences of watching the woodland grow. Other participants refer to variations on the idea of ownership and possession and how these feelings develop: Edgar feels he doesn't 'own' the woodland but has instead 'adopted' it, and he feels attached to some of the trees such as a group of elm trees which he helped plant. He compares the trees to children, saying "*you sort of get attached to them. They give so much back*". The experience of observing the trees grow and develop and being involved in their management fosters a sense of ownership and responsibility to the site, potentially due to an increased sense of kinship. Anne emphasises her role in caring for the woodland and she reports a feeling of responsibility for it. Anne notes that she rarely visits other greenspaces as this conflicts with her need to keep an eye on these particular woodlands.

Anne's feelings when spending time in The Thrift (mature woodland) are influenced by memories formed by time with her family. Another respondent (Rhi) mentions memories formed at other mature woodland sites and their role in prompting conversations and reliving experiences with her husband. This indicates the importance of memories for shaping our sense of place. Opportunities for forming memories relating to newer woodlands are, of course, constrained by time, but there are unique opportunities provided by activities such as tree planting and events relating to celebrating a newly formed woodland. There is also the potential for creation of memories and associated pleasurable anticipation.

Anne feels a strong sense of place for the discussed woodlands which likely drives her sense of stewardship and protection. She expresses this as a sense of belonging and notes her meaningful memories from the Thrift in particular. Her sense of belonging has been strengthened since the tree planting took place. This relates mostly to the proximity of the new woodland and the ease of pedestrian

access: "*Whereas here, we just walk down the road, straight into the wood, so it's just easier and more convenient. But it isn't just the convenience; it is that sort of sense of belonging, really*."

Her strong connection to nature takes a reciprocal form; while Anne provides protection and stewardship, she sees the woodlands as providing her with a range of benefits. Anne's occupation as an artist relies on inspiration from nature and on spending time in nature on her own or with those she teaches. She also particularly appreciates that the trees provide her with clean air. Anne comments that "*Nature's always been there for me, and I have a great love and respect for nature*", highlighting this reciprocal relationship.

3.1.3 New woodlands enable learning

Anne has a strong passion for understanding nature. She emphasises the importance of opportunities to learn about nature, and she commented that her paintings allow her to understand nature differently. It appears that this desire to learn stems from a deeper desire to understand, and thereby connect with nature. Anne comments that she's consistently learning new things about the woodlands and that spending time in them is continually sparking her curiosity, something she finds mentally stimulating. Her curiosity is strengthened by the localness of these woodlands, as this proximity makes it easier for her to follow any changes closely: "*because it's home territory, because you see the changes. You know, I've just seen the galls on the rosehip here. You know, it's just little things like that. It makes you inquisitive as well.*"

Several other participants also feel they learn when spending time in their local woodlands and highlight the cognitive benefits of this in terms of mental stimulation. This links to points made throughout the interviews and in the first theme about the benefits of observing change and variety and how this is emphasized in new woodlands, as they develop and grow at a faster rate. Relating to the growth of the woodland, Lindsay acknowledges that you learn a lot from

nature and those surroundings: *"the more you watch it, and understand it, and learn from it, you grow, as much as the trees are growing, because you're opening up to that natural world, through curiosity and imagination".*

Anne notices differences between the younger and the more established woodlands. There is a temporal nature to the way Anne thinks about and experiences the new woodland and the benefits she derives from it; whether from thinking about the past woodland (e.g. how it looked like last year), experiencing changes as they are happening, or anticipating future changes (often using the mature, neighbouring Thrift woodland as a baseline for imagining what the new woodland will look and feel like in the future).

Teaching is another recurring theme in Anne's interviews, and Anne emphasises the value of learning about nature from others. Anne takes on a teaching role herself, through her work as an art teacher and in her relationship with her children and grandchildren. She says that her paintings allow her to understand nature differently and in more depth and she takes pleasure in encouraging her art students to do the same. She feels privileged that she was able to learn from others herself and now attempts to do the same for others in her life:

"I think the other thing too is if you go with somebody that's a little bit knowledgeable, then you can start to take more of an interest in it… I was fortunate in that I've had things like that [the natural world] pointed out to me throughout my life. And I try to do the same with my grandchildren."

Teaching also links with Anne's sense of stewardship (discussed above) as it comes with the underlying intention of passing on the value of woodlands and sense of stewardship to others. More broadly, Anne feels it is important to engage children and other local people with the woodlands as she feels this will help foster stewardship in others. For example, she is concerned that many children are not fortunate enough to be exposed to nature regularly and that organised activities

are important to help pass on knowledge and understanding of woodlands, suggesting that she would like to see more organised nature walks for the public.

3.2 Richard

"I've been right in at the inception of that project and have seen it grow from stubble in a field to a beautiful woodland, right the way through. And that's in the last 20 years. That has been tremendous to see."

Richard is a man of over 65 years who was born in Bedford and has lived in the surrounding areas all his life. He describes himself as an 'outdoor lad' as he has spent a lot of time in the countryside from a young age. Richard is not from a very nature-oriented family and first became aware of his pro-environmental values after discovering the Greenpeace 'Save the Whales' campaign in the 1970s. Richard worked in the paper industry for 40 years, and through his work he felt a responsibility to care for the trees not only for nature's sake, but to provide the resource fundamental to his work. He feels that learning about trees through his work helped build a 'love' and care for them. Like Anne, he has a reciprocal relationship with nature as trees have provided materials for his work and he helps protect them. His relationship with nature strengthened when he became a father to his two sons and grandfather to four, noting that it is obvious that you would want to look after the planet that your children are going to inherit. Richard, like Anne, has valued nature more since his retirement and having more time to spend in it.

Richard tends to spend at least two hours a day in his local woodlands and makes references to the importance of woodland as places to relax and to observe wildlife. He volunteers with the Forest of Marston Vale Trust to look after the trees and report anything amiss. Richard and his family were also involved with planting the trees in the new woodlands, which he considers will be part of his legacy. He is a member of a number of environmental non-governmental organisations (NGOs) and donates to environmental charities. Richard is an example of how connection to

nature can come from or be expressed after transformative life experiences such as parenthood and retirement.

3.2.1 Experiencing change and sensing variety in new woodlands

Richard reflects on change and transformation, including that is has been a joy to see the agricultural land and former brickworks transformed into a regenerated landscape. He finds it rewarding to observe he growth of the trees that he helped to plant.

As it was for Anne, desire for variety is a strong topic through Richard's interviews, but with a particular emphasis on species diversity. He enjoys hearing birdsong, the dawn chorus and foxes barking. Experiencing some "peace and quiet" is also an important part of his woodland sensory experience. He appreciates seeing a diversity of (native) trees and other plant species which provide a 'palette' of ever-changing colour – something which marks the changing seasons and passing of time.

Variety of sensory experiences was a recurring topic among respondents who described visual, auditory and olfactory experiences from visiting new woodland and sometimes contrasted them with mature woodland. Richard enjoys the feeling of being 'encompassed' or 'enveloped' by mature woodlands. Katherine mentions the shapes of leaves and trees, and how these differ between the summer and the winter. She also describes stronger smells in the spring time. Edgar comments that the woodland will smell and sound different in the future, as the flora and fauna changes. He thinks all these changes will enhance and enrich his experience. He also comments on how the different stages of tree maturity attracts different species of birds and he anticipates more larger and migratory birds in the future as the trees grow. Isabel finds smells to be an important part of her sensory experience of woodlands and notes that the young woodland is a lot drier than mature woodland and currently 'doesn't smell like a forest', and she is excited to experience how this olfactory profile develops. She also enjoys the many textures

in the woodland and how they are natural. Isabel comments on observing changes woodland development on the site in the last year, referring to shades, colours, fruiting and wildlife.

The joy of observing change is, for many participants, closely linked with experiencing variety – more variety means that there is more to notice and experience through the seasons and the years.

"I think the changes are one of the things that attracts me about being out, because you can do the same walk every single day of every year, but you're constantly seeing changes so it's never boring." (Katherine)

Edgar mentions that he finds the experience of observing change particularly rewarding in the new woodlands, because of the rate of growth and development and that observing this change is a stimulating experience. The faster rate of growth of new woodlands makes the experience of change more dramatic and rewarding for the observers. Rhi similarly expresses feeling fortunate in getting to experience the formation of a new woodland:

"… seeing them change from little, tiny saplings with plastic around them, and then all of a sudden, you don't really realise that, the next thing, they're towering above you. And you think, "Wow, how did that happen?" but you've actually watched it grow. Because one minute, you're walking above them, the next minute they're above you. And you're just thinking… It is, I think, a privilege to watch something like that."

Katherine cites therapeutic benefits and relaxation as a result of observing the woodlands grow and change:

"There is a thing about the magnificence of trees. And seeing them grow in the continual lifecycle, […] throughout the year watching the changes there's lots of things going on in your head which are all very positive"

In Richard's case, the ability to observe change is linked to his mental wellbeing:

"Well, it is really to relax and unwind and destress when I need to. I enjoy looking at the seasons as they progress throughout the year and observing nature, and the wildlife within the woods. So, it's a whole encompassing experience of observing and enjoying nature, and relaxing."

He values the woodland more because of the perceived benefits (mental and other) he receives from them, and he acknowledges that others will benefit similarly.

Not all change is seen as positive. Richard is negatively impacted by seeing the progression of ash dieback in the woodland. He feels concerned seeing trees succumb to ill-health, illustrating how unwanted changes to woodlands can impact the affective states of users. Katherine, Edgar and Anne also comment on ash dieback, expressing sadness in seeing trees get diseased and die.

3.2.2 Protection from development

Richard worries about the impacts of over-development of the built environment in the local area, which he feels poses a threat to local woodlands. This topic was mentioned repeatedly throughout his three interviews. His fears around over-development are bound up with (and seem to contribute to) his feelings of stewardship and the need to play his part in protecting the woodland (see next section). The newly planted sites bring Richard a sense of protection from this development and he is grateful for them:

"I know that we must do everything we can to protect the new plantations, not only for us but for future generations."

"You look over it now and you think, "This is really starting to regenerate." This is not under threat of development. That, to me, is absolutely fundamental."

Richard is aware of the conflicting demands on land and while he obtains a feeling of relief from the presence of newly planted sites, he often caveats this with his wider concerns about land use pressures. He points out that "*they seem to be building on everything*" and that there are limits to how many new woodlands can

be created in the area. He specifically mentions concerns that the local authorities are not rejecting enough planning applications as they are unable to defend their rejections on environmental grounds due to financial constraints. He has particular fears about the construction of a local solar farm which he believes will negatively impact local biodiversity. Edgar expressed frustration that there is no room in the local area for the woodlands to continue their natural expansion.

Other participants from both case study areas comment that they felt new planting would protect the planted sites and surrounding woodlands from local housing developments (Katherine, Anne, Edgar, Isabel). This consideration had even influenced Katherine's decision about location when moving house, noting that the presence of the woodlands meant *"you can't [just] build anywhere"*. Anne expresses that the presence of the new woodlands was a key factor in remaining in their current home location.

Despite Richard's protective sentiments towards local woodlands, in the third interview he expresses scepticism about the sustainability of the planting and feels conflicted about balancing tree planting and using the land for farming:

"Well I applaud it. You know, I mean it's nice to see it but in the back of my mind there is still that doubt. It's a lovely transformation from what it was but what it was, was producing food. "I just feel we've just got to be a little circumspect about how we actually move this project forward and how much land we sacrifice for reclamation when we need land for food production"

3.2.3 Stewardship of new planting

Richard stated on multiple occasions that he will always do what he can to protect the woodland and that the more time he spends in the woodland, the more this feeling is reinforced. Richard mentions how his transition to fatherhood increased his sense of urgency to protect the natural environment feeling that it is crucial that natural spaces are left for future generations to enjoy. This is emphasized when he expresses his fears of over-development (see above). Richard believes this strong

need to protect the environment stems partly from his work in the paper industry. He says that trees have been his living and that by overharvesting and underplanting, the source of paper that sustained his working life would be 'ruined'.

Richard also attributes his strong sense of connection to the woodland to the fact that he helped to plant it. This experience has had a significant impact on his sense of place, and he shares the satisfaction he receives from walking along areas where he contributed to tree planting. Richard describes a feeling of growing with the planted woodland, and on several occasions he notes how his children and grandchildren, who also participated in the planting, will be able to continue to grow with the trees too. Richard frequently contemplates the longevity of the woodland and the benefits it brings to himself and others both now and in the future:

"I've been part of this." It will still be here long after I'm gone, and other people will be enjoying it. That is a really important legacy."

"They grow with you, don't they? I mean, you can point to a tree and say, "I planted that 10 years ago with my grandchildren […] they're part of you."

Other participants similarly commented on the importance of being involved in tree planting for fostering a connection to nature or to the site. Katherine mentions how local school children were very excited to check on the trees that they had planted as part of a tree-planting event and how one boy had saved the location of 'his tree' so he could return to it in the future.

The locality of the woodlands is particularly important to Richard who feels lucky to have them on his doorstep a minute's walk from where he lives. Other participants echo the importance of proximity of woodlands to their place of work and home. Katherine moved her home to this location partly for that reason and discusses how being able to go outside every day 'helps you get through the day'. Edgar mentions the importance of proximity and not having to use fuel to travel to the site. This proximity helps participants build a connection to these woodlands through

exposure. This connection likely impacts on their sense of stewardship and desire to protect the woodlands.

Richard does not feel a sense of ownership over the woodland. His framing of his stewardship role is that of 'giving back' to the woodlands, partly by protecting them, highlighting a reciprocal relationship between himself and the woodlands. As mentioned above, Richard has a particular focus on local wildlife and this features strongly in his stewardship role:

"Well it's as though you're giving something back, isn't it? […] The amount that nature, and outdoors, has given me in terms of pleasure is immeasurable, it's just nice to be able to say, "Have that oak tree or have that hawthorn." You know, helping them to regenerate. We all know we need more houses but we need more trees as well."

Richard repeatedly emphasises the importance of the woodlands to the local community, and their role as a social setting for meeting new people. This was important to most participants (Anne, Katherine, Edgar and Rhi). Anne had made new friendships in her local woodlands, and Katherine says that:

"And lots of people, you know, you see them, and you don't even know their name, but because you've seen them so often, sometimes you stop and have a little chat about something. And, of course, that makes a difference to everybody's lives. You know? You might be having a day, or they might be having a day when they don't see anybody else, for whatever reason, and it just makes such a difference, just to say good morning.".

Edgar takes it one step further and describes how

"It's provided a communal space. We've no facilities in the village, no whatsoever. We've got one Co-op. We've got a Morrisons that's a joke. There's no butcher, there's no bank, there's no building society. There's no launderette, not that people need them these days. I'm just giving some examples. […] If we hadn't got this as a space, where would they go?".

This demonstrates the importance of the woodlands for providing the local community with a meaningful place for socialising. This value and the potentially resulting sense of belonging likely contributes to Richard's (and others') sense of stewardship.

However, Richard reveals a tension in consideration of the woodland as a place for wider community use and stewardship of the site, stating that people need to respect the site and that with increased use comes increased infrastructure and increased stress to the woodland. Despite this, Richard feels that certain types of community engagement is key to increasing respect for the site. He mentions in his first interview how children who helped to plant trees will feel angry if those trees are vandalised or destroyed and in his second interview he makes a link between people's understanding of the importance of the site and their respect for it.

3.3 Joe

Two roads diverged in a yellow wood,

And sorry I could not travel both

And be one traveler, long I stood

And looked down one as far as I could

To where it bent in the undergrowth;

[…]

Two roads diverged in a wood, and I—

I took the one less traveled by,

And that has made all the difference.

(The Road Not Taken, poem by Robert Frost. Shared with Joe by his father. Joe finds it to be a meaningful metaphor for nature and for his life)

Joe grew up on the edge of a large village in Derbyshire and he moved to Leicestershire when he was around six years old. Joe is hard working and financially

driven, describing himself as 'cocky' in his early professional years with his career being lined up for him through his father. Joe describes how he felt his life was planned out, but he later rebelled and forged his own pathway building his own packaging business. Joe says that he'd rather do things for others than himself and admits that he struggles to carve out time for activities which are important to him, such as spending time outdoors or with other people. Joe found that getting a dog and taking her for walks enables him to spend more time outside, which he recognises is as good for her as it is for himself. Joe also finds that activities helping others, friends or charities, provide much needed separation from work, securing a better balance and preventing burnout.

Joe didn't previously value his local greenspace, but he has come to appreciate it more as he ages. He does not feel very connected to nature, despite spending a couple of hours outdoors every day when walking his dog, often in Old Parks Farm. He explains that he does not see the beauty in nature which other people might see. However, he feels depressed about the destruction of nature (such as building over natural spaces) but considers himself part of this destruction.

Woodlands are important to Joe because they mask views of civilisation, particularly heavy industry and development. On the newly planted site he visits, Joe describes a strong feeling of leaving development and industry behind and achieving isolation and quiet. Near the entrance to the site, you can still see a large distribution centre and other industry, but as you walk into the site, the human-made noises are drowned out or disappear and the views change to fields and woodland in what, appears to Joe, to be a private and somewhat unmanaged site.

3.3.1 Experiencing change and sensing variety in new woodlands

Joe shares conflicting views on the new woodland. He experiences it as a light and airy place which he enjoys, but he also mentions that he is light sensitive, and too much light can give him a headache. At one point he referred to the site as a "*a field with a load of trees in it*", contrasting it with a woodland. He doesn't think that

there is much variety in the landscape on the new planting site in comparison with other natural landscapes: "*you round a corner, it stays the same […] there is 'grass, trees and light".*

Joe imagines that as the woodland grows, it will start to feel like a darker, more enclosed, quiet and softer woodland, making explicit reference to a nearby, more mature woodland planted in 1999. This site he describes as 'shadowy', 'more traditional' and with a 'closed-off feeling'. He also describes how sunlight penetrates through the trees in established woodlands creating a 'divine light' and how the mixed canopy structure allows for the light and the views to change along one's journey through such woodlands, with different compositions around each corner. Joe feels that this variety helps him feel a sense of connection to established woodlands, which he does not feel for the newly planted site. It is noteworthy that among the accounts by the interviewees, light appears to be the key sensory feature differentiating new woodlands from established woodlands. Joe's account of this is particularly detailed, alluding to the spiritual connection people can feel for different places and how that's linked to a site's characteristics such as light.

Variety is a dominant theme for Joe. He describes how he enjoys a change in stand ages across a woodland, weaving in and out of more mature woodland and open space. He is interested to see how this develops over time in Old Parks Farm. He also speaks about variety in terms of observing woodland changes with the seasons and of the importance of a diversity of tree species, sharing that uniform planting would lack interest. Joe prefers 'natural' looking places and would prefer to see a more 'traditional' mixture with fewer non-native tree species, as these species remind him that the woodland is 'manmade'. Joe perceives unmanaged woodlands to be more natural and to provide a sense of solitude and he thinks the site does not appear to be overly managed.

Joe's management preferences are linked with his desire to spend time in less managed places. For example, he speaks about thinning at length:

"Thinning: Ah, it's depressing, really, isn't it, whenever you see it? […] I understand the need for it. Well, I understand our perceived need for it and the perceived benefits and things like that, but yeah, […] you just destroy a landscape and you destroy a connection that you've had for years, which takes years to develop and then in one fell swoop it's gone without any notice usually because you're just a bystander […] Yeah, it would reset a connection, wouldn't it? So your connection would be lost. It would be damaged. Not damaged but it would reset and then you would get used to it relatively quickly. The woods is still there, it's still going to be there. It will just have a different feeling, but it changes all the time, doesn't it?"

Most of the other participants felt differently about thinning and tended to share their understanding of the benefits of thinning to the ecology of the site, despite some initial dismay at seeing trees cut down. These participants perceive that thinning provides increased 'variety' and appreciated the intent to mimic natural processes. Richard appreciates how woodland management (specifically thinning) can help create a mixed-age canopy, increase biodiversity, create changes in the woodland over time, and improve the aesthetic appeal of the woodland. This appreciation for management which leads to variety within the woodland was echoed by Anne, Isabel and Rhi who appreciate how it increases the amount of light filtering into the woodland – linking in with their preference for a variety or mosaic of open spaces and woodland and opening up the canopy for other flora and fauna.

While Joe's local new planting site appears largely unmanaged to him, the new trees have been planted in fenced areas which Joe calls 'cages' to protect them from pest damage. These manmade structures go against Joe's desire for a natural looking woodland and to escape from human infrastructure. His focus on and descriptions of the cages in the third interview (on site) was in contrast to previous interviews where he did not mention the cages and referred to the site as 'natural'. Joe notes that he was prompted to discuss the cages when seeing them on the interview walk, but he may not have thought much about them otherwise. When speaking of the cages he referred to the tree planting as 'factory planting', a

'warehouse waiting to be released', a 'caged field', and the private, industrial feel that the cages bring to the experience of the site. Yet, Joe expresses a level of appreciation for the planting having taken place and an understanding for the need for 'efficient' planting practices which he links to the need for efficiency in his own work. Joe comments that some information about the site could help improve his perceptions of the design and management practices used, including information on permitted access, the purposes of the cages, on the species choices and on why some areas have been planted more sparsely than others. While Joe dislikes the cages, he believes they will eventually be removed and looks forward to experiencing the new planting develop and merge into the earlier planting.

3.3.2 Protection from development

Joe feels sad about the increased amount of built development changing his local landscape. He notes that he used to take the local landscape for-granted but values it more now that it is under pressure from development. He has always lacked a sense of belonging in Leicestershire and he feels this is further compromised by the development. Joe is drawn to isolation and achieves this by walking in woodlands where "all you can see is trees and sunshine", with 'civilization' and 'industry' masked by the trees. Seeing development and industry directly conflicts with his desire for isolation.

Joe wishes to see the planted areas expand:

"Experiencing expansion across the site: I hope it develops. I hope it develops and I hope then it grows, so I hope there's a next bit, a next bit and a next bit and it gets bigger and bigger and bigger because that's nice to see".

However, he is concerned that the site and its expansion is likely to be negatively impacted by increasing amounts of built development because it occupies a central, urban location. He contrasts this with other local woodland sites, such as Queen Elizabeth Diamond Jubilee woods, which are further from urban centres and so potentially less at risk. Indeed, Joe is aware that a new housing development is due

to be built on some of the fields adjacent to the site. He recognises that with the housing development will likely come the installation of more facilities on the site and with it a higher footfall. Joe worries the site will "*lose what it's currently got, which is very rarely do you see anybody*". Similar concerns were referenced by other respondents, who feel that an increase in visitors would impact on the peace and quiet provided by the sites (Rhi and Richard). Richard, for example, prefers woodlands that have a more natural feel, and comments that certain infrastructure, such as cafés, can compromise this sense of naturalness and the ability to 'lose yourself' in the woodland:

"A lot more people, hopefully, will mean a lot more people will enjoy it but a lot more people could mean that the wood falls under a lot more stress in terms of new footpaths, new places for people to have a picnic, and all that brings more litter and more ill treatment, by some people, of the wood. That worries me."

Changes to the woodland sites which Joe visits have a profound impact on his sense of place and ultimately, his sense of belonging. He explains how he has a near-spiritual connection to some woodlands and how this connection is at risk.

"If it [the woodland] stays the same and develops [naturally], then if it matures and it stays the same […] then the light, the sound and things like that, it's bound to connect. It's bound to have more of a connection back to nature and back to, "Christ, is there something better out there?" But if it develops in a more mass-person appeal, then that connection will disappear. Well, it won't disappear. It will be dampened, from what I experience. Yeah."

While Joe expresses a sense of detachment from his local area and its nature, it appears that rather than being indifferent, Joe is actively struggling with his sense of belonging, which includes his relationship with local nature. Changes to the new woodland site he regularly visits, as well as wider development in the area on familiar fields, put this sense of belonging further at risk. Fears around the prospect of change therefore affect Joe's wider wellbeing rather than just his experiences of

the site. For example, Joe states that: *"Everything I potentially have known is about to change",* and at one point he reveals that he would be willing to leave the area in the near future and never return.

3.3.3 Sense of stewardship

Despite concerns about human impact on woodlands (above) and considering himself part of the destruction of nature, Joe does not feel a sense of responsibility for protecting the site or the wider environment. He expresses a pessimistic attitude towards his own ability, or that of humans in general, to protect nature - that humans are too "stupid" to protect nature and such activities are "whitewashing" exercises. As such, Joe's relationship with nature takes an extractive form in his mind, commenting that it's 'exploitative' and 'consumerist'. He feels that he 'uses' (exploits) the site to gain personal benefits in terms of mental health. In a related discussion, he reveals that he only cares for the greenspace he uses in his local area and is less concerned about development elsewhere (see above).

Joe expresses a disconnect from local places which he believes stems from his childhood as he struggled to form an attachment to Leicestershire upon moving there as a young boy. He similarly expresses a disconnect from nature which he believes is likely a consequence of work pressures and demands and relates to his struggle to consider, prioritise, and behave in ways that benefit him. Joe also mentions that he struggles with social interactions and to make connections with people. While he recognises that socialising is good for him, he expresses a preference for isolation. It is conceivable that his disconnect with people and nature are somehow linked. For example, it seems possible that it is not straightforward for Joe to engage with people or nature because that requires him to consider what is in his interests, something which does not come naturally. Added to the pressures of work, and a geographically disrupted childhood, this results in

difficulties forming bonds to both nature in his surrounding area and the local community.

3.4 Lindsay

"... when I'm in woodland, I feel I've dug into nature, I'm part of it. I'm in the fabric of nature [...] It's putting me into the fabric of nature, rather than having to feel I need a connection to it. So, the open space gives me a sense of connection. But, when I'm in woods [...] it feel's I've come home"

Note: We warn that this case biography references abuse of a child. We have included this content as the participant felt it was an important part of their life history and we want to stay true to their story.

Lindsay has had a wealth of experiences throughout her life. She was born in Buckinghamshire but moved to Warwickshire when she was six. She married at 23, had a son, and worked as a radiographer. She then remarried, moved to Worcestershire, and opened a law practice with her husband who she has since divorced. After her divorce she trained to be a Neurolinguistic Programmer and lived on a narrowboat for five years in an attempt to get close to nature again. She then moved to a small island off Ireland for eight years where she did manual labour in the local community and lived 'off-grid'. She moved to the National Forest area recently and is now a dog walker and has her own dog, Hugo

Lindsay describes much of her life as a fight to get back to nature. Throughout her youth, Lindsay experienced trauma including the loss of her father at the age of five, having a mentally and sexually abusive stepfather, and experiencing a depression after the birth of her son. These transformative life experiences have shaped Lindsay's relationship with nature. She has meaningful memories of fishing with her father, of subsequently finding escape and safety in nature while roaming the fields of Warwickshire, and of walking the woodlands after the birth of her son which helped her through her depression. Now she spends a lot of time walking through the woodlands with her adult son.

Lindsay's identity and values are closely intertwined with nature and she consistently makes life decisions in an attempt to get closer to nature and to discover her true self through this connection. Her example shows the ways in which we value nature can change over time based on transformative life experiences. She also articulates how nature helps shape her sense of self and thereby her wellbeing.

3.4.1 Experiencing change and sensing variety in new woodlands

Throughout the interviews, Lindsay discussed the different feelings she gets from open and closed natural spaces. She feels that mature woodlands are closed spaces where one is 'dug into nature' and feels 'in the fabric of nature', using descriptive words such as 'loving', 'safe', 'strong connection' and 'homecoming'. This resonates with comments made by Richard and Edgar about a sense of being enveloped in mature woodlands. In contrast, she describes the new woodlands as 'open'. Growing up, Lindsay spent a lot of time walking through fields as an escape from her home life. Lindsay feels that 'the sense of openness gives you peace from the chaos', describing the big skies, the air and a sense of 'slow processes'. These places are sanctuaries in among the 'claustrophobic' built up areas. Lindsay speaks of the newly planted woodlands as lush, diverse, energetic, vibrant and 'the zest of life', and notes that they make her feel energised and so she walks faster in them compared to mature woodlands. She notes the different sounds compared to other places, the diversity of ages, species, shapes and sizes and finds this to be a metaphor for inclusivity. She also notes the fast pace of change and how the trees are reaching for the skies, looking different from just the month before, and she particularly enjoys seeing the growth in the new woodlands emerging in the spring.

Lindsay commented on the planting design of the site and how that makes her feel. She agrees that tree planting needs to happen first, to provide the woodland with a 'head start', but she describes the initial aesthetic of the site as 'sterile' and the planting in rows as 'regimented', querying why the planting was so dense.

Katherine similarly expresses that very new planting is less interesting to look at and Joe referred to it as 'a field of trees'. This uniformity contrasts with Lindsay's desire to see a natural environment, but she notes that nature will 'decide the course it takes' and expects the woodland to look more natural as it grows. She says that the young trees have already started to 'break the canopy' and create their own patterns.

Lindsay, like other participants, prefers woodlands that look 'natural', and she feels strongly about reducing management or 'interference' with nature, working with it rather than against it. She considers dense planting followed by thinning to be working against nature, explaining that she doesn't overplant her vegetable patch to maximise the chances of each vegetable having a chance to thrive. However, she acknowledges that the practice of dense planting followed by thinning happens as result of management pressures (time and money). This links back to Lindsay's strong, interconnected relationship to nature and strong sentiments about its destruction by humans. Lindsay shares her dislike of tree felling with Joe, perhaps for different reasons, as Lindsay reports being concerned about and connected to nature and Joe does not. Lindsay is particularly upset by the prospect of clear-felling on the site. She considers it to be harsh and wasteful and wishes to leave pockets of nature for wildlife rather than "*forcing it to start over again*". However, Lindsay notes that she feels optimistic about the ability of nature to recover swiftly. Several other participants have strong feelings about the management of their sites and about how this affects the aesthetic and sensory experience. Isabel feels equally moved by plans for clear-felling *"I'd be really upset, I think. It would sadden me", "They've created that environment, and habitat, and then just take it all away, I think it is a real shame".*

There was a consensus that a more natural feel was essential to the overall experience:

"but they are allowed to be so natural. So, when you're walking through you're thinking there's lots of creatures living here that are being allowed to live in the way they want to live, that's a really important part of it." (Katherine)

"In fact, they're doing less and less strimming and mowing. Of course, this big move towards meadows has encouraged that, as well, so there's less interference now than there was when they first put the Rectory Wood in, and subsequently a big increase in wildlife." (Edgar)

Some participants also recognise that certain management actions can help improve biodiversity. In terms of planting, there was a general preference for native species (Katherine, Edgar, Joe) and a dislike of conifers (Katherine, Edgar, Richard) and tree guards (Katherine, Edgar). Edgar is excited about different species mixtures planted in blocks on the site, providing different experiences throughout the site in the future:

"Because there's nothing more boring than 20,000 trees all the same. All the same height because they were all put in at the same time and what have you. Keep it mixed. Keep it native."

Lindsay has had a number of traumatic life experiences and nature is a fundamental part of her identity and healing journey. She sees new woodlands as an asset to her mental health, particularly for preventing depression and to continue her healing. She draws parallels between her own life and the trees' lives and she contemplated the experiences of mature trees: *"it's had its history, and it's had its traumas, and it's had its successes, and it's still here to tell its story today"* and indicated a shared experience when speaking about younger trees: *'we all have to struggle to get a footing in life'*. This resonates with Richard's feeling that he was 'growing with the trees'.

3.4.2 Stewardship of new planting

Lindsay has a strong sense of respect and stewardship towards nature and she believes that showing respect for nature is a way of deepening one's connection to it. Lindsay describes nature as her belief system and uses a lot of anthropomorphising language when discussing nature. For example, she refers to nature as 'she' and expresses a nature-knows-best viewpoint*: "nature has her own rules and ideas of [what grows and thrives]"*. Lindsay also repeatedly refers to human impacts on nature as 'raping and pillaging' and she wishes that the negative impacts of humans on nature were limited, leaving space for nature to flourish. As such, Lindsay appreciates fencing on the site, which she feels will allow nature to 'take a hold' and will limit damage by humans. In contrast, Isabel looks forward to the removal of the fencing on the same site as she wishes to explore inside the areas that are fenced off and Joe refers to the young tree 'cages' (taller fencing) at a different site in negative terms.

Although she is deeply concerned about the fate of the woodlands, Lindsay explains that she would not wish to be contacted about any future removal of trees as part of planned management, but would rather come across this information herself, acknowledging that

"this is just my way of coping with the big, bad world, is that I can't change it…I have to accept that, and look for the silver lining with the action of man…[and] believe in hope, really".

Here she is alluding to the importance of the new woodland for providing her with hope, which is explored in more detail below.

3.4.3 Sense of safety and protection

Lindsay attributes great importance to feelings around safety and protection experienced in woodlands. This was not a topic referenced by other participants to any similar depth. She often contextualises her accounts of what it feels to be safe by referencing her traumatic experiences and how nature has helped her to recover

and heal. She talks about nature first providing an escape from her abusive stepfather, and again when she experienced a depression in her early 20s when she spent a lot of time walking through woodlands: *"I've had quite a lot of things go on in my life, it's [nature has] always been that place where I felt safe, and I could breathe".* The woodlands created a space for her to be able to 'feel' again, alluding to reconnecting with her emotions while otherwise feeling numb in her daily life. She later decided to leave her second husband and their law practice to be closer to nature. She first lived on a narrowboat and later spent eight years off-grid on a small island off Ireland. This illustrates the lengths Lindsay will go to in order to feel safe, not just from danger, but safe enough to build a strong sense of self away from life's negative distractions. Lindsay talks about going back to her 'roots' and attempting to break away from expectations of society *"to try to find my path back to who I actually am and that true essence of being human"*

Throughout her life, Lindsay has found peace and relaxation in the woods. They also help her to reflect on her life and throughout her interviews she draws on nature-based metaphors showing how her sense of self is tied to nature and how she has come to be true to her authentic self through nature:

"The thought of sitting at a desk, for me… because it's been a struggle to reestablish myself, and start a new business, and develop how I want to go, so the finances are very, very slim, and I've got to the point where I've thought, "Perhaps I need to, as they say, get a proper job," […] [but] by stepping out of this [environment] that I thrive in… well, I'd be planting a tree in the wrong area. I'm just going to shrivel up and die."

Lindsay particularly describes the mature woodlands at her local woodland site as associated with strong feelings of safety, feeling *"enclosed, but in a loving way, a safe way, and a stronger connection* […] *a homecoming"*. She describes 'The comfort of maturity' and states that:

"I sometimes think I have a childlike view of nature, because I'm always inspired or excited to see something'. 'I feel as if I've got arms around me, in the mature [woodland]. Whereas I feel like a child running free with the new'.

By contrast, Katherine feels safer in her local new woodlands as they are well used and there is less opportunity to get lost. However, she also comments that with more use she might see more antisocial behaviour which would make her feel vulnerable. Katherine feels that the new woodland's openness contributes to a sense of safety, being able to view ahead, but doesn't feel this feeling of safety will necessarily be compromised as the trees mature because she will 'get used to it'. Lindsay also talks about how others (specifically mentioning solitary men), who may share the woodland, can cause her to feel cautious. She explains how the dogs she walks as part of her job are a helpful barrier between herself and strange men, especially when they're all on their leads. Lindsay summarises that *"Nature doesn't make me feel unsafe, but mankind can make me feel a little bit wary".*

In an early interview, Isabel states that she felt safer in new woodland because it includes open spaces. However, in between interviews she had reflected on this and states in a later interview that she feels equally safe in different woodland types. Edgar, who is male, is concerned about the risk of tripping or falling in the woodland and would therefore prefer to visit with his wife. He mentions how the openness of the new woodland makes it feel safer, contrasting it to *"walking through a dark tunnel"* (mature woodland). This highlights how different types of woodlands provide different experiences and that people may feel more or less safe in newly planted woodlands versus mature woodlands and that this can be affected by life experience but can also change over time and depend on the specific context.

3.4.4 Finding hope and resilience in new woodlands

New woodland has a deeper meaning in Lindsay's life than just providing nice places to walk and Lindsay likes to draw parallels between her own life and the life

of the woodland. She speaks of new woodlands as 'new beginnings', 'sense of potential' and of how they instil a sense of resilience to obstacles in Lindsay's own life. It is clear that she uses the woodland as a place (physically and in her imagination) to reflect on her own life.

Lindsay thinks planting trees is important because it is human beings' way of saying "*sorry for what we've done"* and paying back for our maltreatment of nature. She thinks tree planting offers us hope. She describes how we start with "*barren land*" and then it has "*hope planted in it*" and how the planting helps to reconnect nature and communities. Katherine similarly mentions a sense of hope that new trees bring and ties this in with observing a positive change across the former industrial brickmaking landscape around the Forest of Marston Vale. Lindsay further talks about the experience of observing the energy of young and mature trees and noticing the open spaces which will become engulfed by the canopy. She feels that observing the integration of nature including the new with the old, will bring her an ongoing sense of joy.

Other participants note how tree planting presented an opportunity for them to make a positive contribution to nature. Richard feels he is able to respond to the global climate crisis by taking action on a local level, commenting that it makes him feel that he is part of a wider movement towards the regeneration of nature and that this makes him feel good. Edgar similarly notes that through his volunteering, he is able to make a positive contribution, and Isabel mentions a feeling of 'giving back' to nature through volunteer opportunities. Tree planting can therefore be an impactful experience beyond building stewardship for a particular site, affecting people's wider sense of environmental agency or being able to do something about the state of the world.

4   Conclusion

It is often assumed that newly planted woodlands will bring the same suite of social benefits as mature woodlands provide. However, through this qualitative research we have demonstrated that new woodlands provide some unique benefits. That they are experienced in a different way to established woodlands, with different sensory stimulation. While mature woodlands are associated with therapeutic values and place-related memories, new woodlands are seen as uplifting and energy-boosting. More importantly, the experience of observing newly planted woodlands grow and change over time provides numerous benefits to psychological wellbeing through mental stimulation and curiosity and by providing a sense of hope. New woodlands provide an opportunity for communities to participate in planting, enabling them to take action on environmental concerns, and helping to build a deeper sense of kinship to these places. This sense of kinship is enhanced as people experience growing alongside their planted trees.

The qualitative longitudinal approach adopted in this study allowed for rich descriptions of the nuanced ways in which members of the public engage with and relate to local tree planting sites, and how they experience changes in those sites over time. The interview methods allowed us to provide detailed accounts of the participants' personal lives and how these related to their relationships with local nature. While the questionnaire survey demonstrated benefits from these sites at a community level, the case biographies were able to describe the highly individual ways in which these benefits occur. For example, Joe's case biography provides details about moving to another location as a child and struggling with stress and work-life balance. This provides helpful information when considering the reasons for his low sense of belonging and connection to nature.

Participants had time to reflect on questions from previous interviews and as such co-created their narratives in collaboration with the researchers. For example, Isabel's response changed from one interview to the next as she first stated that

she felt safer in open woodlands compared to mature woodlands but later reported that, upon reflection, she felt equally safe in both woodland types. We conclude that a qualitative longitudinal case biography approach is highly suitable for exploratory research into the less studied aspects of human-nature experiences. For an in-depth reflection on the methodological approach, see the separate methodology report.

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Dear participant,

Thank you for taking the time to participate in the research interviews for our study 'Mapping the social benefits of woodland creation and expansion longitudinally'. Your contributions are highly valued, and you have received a shopping voucher for £60 as a token of our appreciation.

Below is a reminder about the project and about your participation.

About the research

This study is helping us to better understand the impacts of new tree planting on local communities and testing research methods for measuring this over time.

Next steps

You have now taken part in all interviews required for this research.

You are free to request a written copy of your interview transcript, and we welcome any clarifications or additions you may wish to make.

Please also let us know if you would like to see the final report and any other outputs. These are likely to be available sometime after March 2025.

We are also in the process of applying for funding for an additional year of research for this project as there are some fascinating findings we'd like to explore in more depth. This may include another interview and/or a research workshop with other participants to create a piece of art reflecting some of the research findings. We would provide all details at the time of invitation as well as cover any transport costs. However, you are under no obligation to participate and if you don't want to be contacted about future participation opportunities please contact Beth.Brockett@forestresearch.gov.uk

Your data

Below are the conditions of the interviews to which you have consented:

- Your personal data is confidential. It will be stored in accordance with the General Data Protection Regulation, the Data Protection Act 2018 and the Forest Research Society and Environment Research Group's [code of](link)

ethics. The Forestry Commission's Data Protection Officer can be contacted at informationrights@forestrycommission.gov.uk.

- The information collected will be used to produce written reports and publications, and these may be shared with partner organisations or placed in the public domain. Your data will be anonymised, meaning anything you say will not be attributed to you in reporting. As far as is possible, we will check with you that our interpretation of your data contribution is correct.

Your wellbeing

We recognise that we may have covered sensitive subjects during these interviews. If you feel upset after having completed an interview or find that some aspects of the interview were distressing, there are a number of free services that can provide support. Some examples include:

- Mind: Provide a mental health Infoline and can provide advice and highlight treatment options. They also have self-care tools for a range of mental health problems.
- Samaritans: have a helpline where you can talk to someone about your thoughts and feelings. The Samaritans also have a self-help app.
- If you need treatment, it is best to speak to your GP who will be able to make an assessment and a referral to an appropriate service.

If you would like assistance finding the right service, please contact the project manager (see below).

This research has received approval from Forest Research's Ethics Committee.

Getting in touch

If you have any feedback, questions, concerns or complaints, please feel free to get in touch with the project manager at Beth.Brockett@forestresearch.gov.uk or by phone on 07435 609192.

We also remind you that you have a right to lodge a complaint with the supervisory authority, the Information Commissioner's Office.

Best wishes
Dr Beth Brockett