Oxfordshire Local Nature Recovery Strategy Phase 3 consultation: Analysis of responses

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Report prepared for the LNRS team at Oxfordshire County Council

Summary

This report summarises the response to the public consultation on the draft Local Nature Recovery Strategy (LNRS) for Oxfordshire, which ran from 18th October until 1st December 2024.

There was a high response, with a total of 2,143 responses including 41 emails, 127 survey responses and 1975 pins on the map (of which 435 were blank). These were analysed using a combination of AI and manual approaches to identify key themes, which are presented in this report.

The survey responses demonstrated very high enthusiasm and engagement with the strategy, and all the responses shared a deep level of local knowledge. Overall, 74% agreed or strongly agreed that the draft strategy was a helpful set of priorities and actions to improve biodiversity in Oxfordshire, and only 12% disagreed. Several key themes emerged around how the strategy could be improved and strengthened. Key requests for change are summarised below.

- **Length and usability.** The documents contain rich detail but are very long. There needs to be a concise summary, and separate guidance documents for farmers, planners, communities, businesses and funders. There needs to be an overarching vision and/or a set of principles. There were also suggestions for restructuring the Description of the Strategy Area to reduce repetition, and making the map more user-friendly. It was suggested that there could be catchier names for zones on map (Core, recovery, wider landscape) and distinct names for local areas.

- **Urban areas** are poorly represented. The importance of urban nature for people's health and wellbeing should be emphasized, and more urban opportunities should be included on the map, including urban corridors.

- **Large areas for nature** are needed as well as a network of smaller areas. This comment was made by only a few responses but was strongly argued. It links to existing initiatives in the Bernwood-Otmoor-Ray region.

- **The wider benefits of nature recovery** for people need to be much more strongly recognized, to give the strategy more traction and to ensure it delivers multiple benefits and avoids trade-offs. This includes both the benefits for health and well-being, and other ecosystem services such as flood regulation, carbon storage, urban cooling and food production.

- **Development concerns and other land use conflicts**. Many comments expressed concern and distress about loss of green spaces to development. There were calls for more clarity on how the LNRS would interact with planning policy, both from residents wishing to protect their treasured nature-rich green spaces and from planners noting potential conflicts with areas allocated for development in Local Plans. However there were also comments about how the LNRS could help to guide future Local Plan allocations, and inform green infrastructure within planned

developments. Other land use conflicts included the impacts of farming and recreation on nature, and the potential loss of farmland due to some nature recovery actions. Some responses noted the need to balance multiple needs, and the related need for a land use strategy for Oxfordshire (some of which goes beyond the legal powers of an LNRS).

- **Water quality.** Several comments noted that water quality improvement is essential for nature recovery, as well as for human health and wellbeing. There were suggestions for how the LNRS could support water quality to some extent through encouraging nature-based solutions, but also strong agreement that the sources of water pollution must be tackled though working with water companies and farmers.

- **Delivery and funding**. More detail was requested on how the LNRS will be delivered and funded. There were useful suggestions for how to develop partnerships, funding and training to help deliver the LNRS.

- **Community engagement**. More emphasis was requested on the critical role of communities for delivering the strategy, and the importance of co-designing projects and plans using local knowledge, values, needs and preferences. Many examples of work being undertaken by various community groups were reported, though it was noted that many of these have little or no funding.

- **Targets, monitoring and evaluation.** There were requests to state the national and international 30x30 target (30% of land to be restored for nature by 2030) so that people could see how Oxfordshire's LNRS could play a part in delivering this. More information was requested on whether there were specific targets for the total area to be restored, possibly split by potential measure or broad habitat. Targets should be SMART (specific, measurable, achievable, relevant and time-bound) and there should be clear plans for monitoring and evaluation. Many monitoring activities are already being carried out by community groups and volunteers, and more citizen science activities could play a role in future.

- **Changes to priorities, potential measures and priority species**. Although the Statement of Biodiversity Priorities and the Species Priority List were felt to be very comprehensive, there were various requests to add, remove or change specific priorities, potential measures and priority species which are summarised in this report.

- **Changes to the Local Habitat Map**. There were many requests for changes to parts of the map as well as many comments which supported the current mapping. Requests for change included:
  - **Mapping potential measures to exact land parcels** rather than using hexagons, which make biodiversity net gain calculations very difficult and hard to justify on land at the edges of hexagons.
  - **Mapping more appropriate measures**. Many examples were noted where the LNRS suggests an option that was not felt to be

appropriate, such as grassland restoration on an existing woodland, new grassland creation on an existing grassland, or wetland or woodland creation on sports fields, playgrounds, allotments, orchards, churchyards and cemeteries. In some cases, farmers preferred grassland measures rather than woodland creation measures. The importance of always carrying out an ecological survey to check local habitats and species rather than purely relying on the LNRS map was stressed.

o **Connecting gaps** in the network and smoothing it out, perhaps with fewer isolated areas on the map.

o **Adding extra areas**, including the full extent of all of the Conservation Target Areas, buffers around SSSIs and other designated sites, joining up habitats to make a larger area in the Bernwood-Otmoor-Ray region, more urban green space, areas with important habitats and species, and areas where landowners, managers, community groups or other individuals wish to take action or have planned, ongoing or completed restoration work. There were also requests to map some of the unmapped measures (including fens, reedbeds, scrub, habitat mosaics, verges, and wildlife corridors).

o **Removing areas.** There were a few requests to remove specific areas from the mapping. These included requests from a developer, utility company and local planning authorities to not map biodiversity actions on sites where future development has been planned.

- **Information about local habitats, species and activities**. Many comments reported the presence of habitats and species in particular areas, and others gave information about planned, completed or ongoing nature recovery activity across Oxfordshire.

- **A range of views on habitat management**. Although there was broad support for most of the potential measures, the comments sometimes revealed conflicting views on habitat management, especially around intervention in ancient woodlands, and allowing scrub or ponds on grasslands.

What will the LNRS team do next?

All of these findings will be shared with the Local Nature Recovery Strategy team and the group of organisations and people who are working to finalise the strategy. These responses will be actioned as far as possible and the LNRS team will publish a paper showing what was done in response to each of these key requests for change. This will be published with the final version of the strategy. See the LNRS timeline on their [webpage](#).

Contents

1. Introduction

This report summarises the response to the public consultation on the draft Local Nature Recovery Strategy (LNRS) for Oxfordshire, which ran from 18th October until 1st December 2024.

The consultation invited local people and organisations across Oxfordshire to view a draft version of the strategy documents and the map, and to suggest changes they would like to see in the final version. The consultation responses were analysed by a team of researchers at the Leverhulme Centre for Nature Recovery and collated into this report.

1.1   The four components of the LNRS

The structure of the LNRS is defined by Defra and comprises four elements:

- The **Description of the Strategy Area** (DSA), which describes Oxfordshire's existing biodiversity (habitats and species).

- The **Statement of Biodiversity Priorities** (SBP), which identifies nature recovery priorities for Oxfordshire and 'potential measures', which are actions that can help to deliver those priorities.

- The **Species Priority List** (SPL), which identifies species that need special measures that will not necessarily be covered by general creation and enhancement of habitats.

- The **Local Habitat Map** (LHM), which comprises:

  o **Areas of Particular Importance for Biodiversity (APIBs).** These are strictly defined by Defra to include only certain types of designated sites (SSSIs, National Nature Reserves, Local Nature Reserves, Local Wildlife Sites, Special Areas of Conservation) and 'irreplaceable habitats', which includes ancient woodlands and ancient or veteran trees. LNRSs are able to map nature recovery actions ('potential measures') for all these areas except SSSIs, where Natural England are expected to create legally binding suitable management plans which go into more detail than the LNRS.

  o **Areas that could become of particular importance for biodiversity**. These are considered to be the highest priority target areas for taking nature recovery action ('potential measures') to maintain and enhance existing habitats and create new habitats where suitable.

In Oxfordshire, the draft Local Habitat Map was shared as an interactive map tool that allows people to view the component layers. The map included the core APIB layer of designated sites and irreplaceable habitats, as well as the target areas for future nature recovery action, presented as a set of mapped layers for specific habitat restoration actions called 'potential measures'. Some 'potential measures' in the written Statement of Biodiversity Priorities are not mapped to

particular locations. This can be either because they are important all across the county and cannot therefore be narrowed down to key locations, or because there is not yet sufficient data (mapped information) to add them to the map.

1.2   Next steps – response to this consultation report

The rest of this report lays out the detail of what was said during the public consultation on the draft LNRS. Next, the LNRS partnership of organisations (including Oxfordshire County Council) will work through this report and begin actioning changes to the strategy based on the requests from the consultation. The changes will be discussed by the LNRS partnership including a range of local, regional, and national partners (See membership of these groups in Appendix 1). This report will be used to make changes to the draft map and documents to create a final version of the LNRS. Once the LNRS is finalised, the LNRS team will publish an online report to offer transparency to this process, describing which changes were made as a result of the consultation.

1.3   Structure of the report

In Section 2. we briefly describe the overall consultation process and the analysis method. We then present a breakdown of responses by type of response and by theme in Section 3.. The overarching themes that emerged are presented in Section 4.. Section 5 provides brief summaries of the main changes requested to the individual LNRS documents and the map, with further detail provided in Appendix 3. Finally, Section 6 summarises responses related to specific intervention types (habitat protection, creation, enhancement, connectivity, and rewilding).

The full dataset containing all original responses verbatim can be accessed online on the LNRS webpage. This is available both as separate documents listing all the survey responses, emails and map comments, and as a spreadsheet where the comments can be filtered by theme.

Summaries of typical comments are provided throughout this report, to illustrate key themes. These are not all direct quotes – most are greatly shortened, edited and/or paraphrased to bring out the key points as briefly as possible. The source of each comment is identified by a unique ID, e.g. Map 1, Survey 2, Email 3, so that the full verbatim response can be found in the full dataset.

2. Consultation process and analysis

2.1   The consultation

The consultation ran for 45 days from 18th October until 1st December 2024 (11:59pm). It was hosted on the 'Let's Talk' platform which Oxfordshire County Council use for public consultations. The consultation page held the written strategy documents as pdf files and a link to the draft LNRS Local Habitat Map. During the consultation this page had over 7,100 views with the draft LNRS documents being downloaded over 3,200 times. The map tool had 4,182 views.

Local people and organisations were invited to respond in one of three ways:

- **Survey**. An online survey allowed users to respond to a series of open questions about the three strategy documents and about the general strategy (Table 1). Users could either submit this online or download the survey as a document and email or post it to the LNRS team.

- **Map**. Users were able to place 'pins' on the interactive map with their comments attached. Users could select from four categories for each pin:
  - I agree with/like something here
  - I don't agree with/don't like something here
  - I would like to take an action to support biodiversity that isn't currently mapped
  - Observation, comment, or idea

- **Email.** People could contact the LNRS Project Manager directly, typically by email.

Table 1. Questions asked in online survey

LNRS document	Summary of key questions
Description of Strategy Area	Is there anything you think should be changed in the draft Description of the Strategy Area?
Statement of Biodiversity Priorities	• Do you think any priorities or text should be added to this document? • Do you think any priorities or text should be removed from this document? • Do you think any potential measures (actions) should be added or changed? • Are there any potential measures (actions) that you think should be removed? • Is there anything else you would like to say about this draft document?
Species Priority List	• Do you think any species or text should be added to the draft Species Priority List? • Do you think any species or text should be removed from the draft Species Priority List? • Is there anything else you would like to say about this draft document?
General	Is there anything else you would like to say about the draft LNRS?

During the 45-day consultation window, the LNRS team presented at, or attended, over 50 events and meetings in Oxfordshire to raise awareness of the opportunity to consult on and shape the final LNRS. In total, these events directly reached over 700 local people. The LNRS partnership of organisations also

shared communication messages with their audiences to ensure that a great range of audiences could hear about the consultation via emails, messages, and social media communications (see the [video](#) from Wild Oxfordshire).

Communications messages were distributed to over 340,800 people. These messages were shared through newsletters, websites, and social media platforms to a range of audience members including, but not limited to; Oxfordshire's Local Nature Partnership, National Farmers Union, Country Land and Business Association, local catchment partnership groups, local farmer cluster groups, Community Action Groups Oxfordshire, Wild Oxfordshire, local nature recovery action groups, species specialists within Thames Valley Environmental Records Centre, parish councils, schools across Oxfordshire, landowners and land managers, developers and minerals operators, the Protected Landscapes (formerly AONBs), residents of Oxfordshire through the County Council, residents through the local District and City Council communications, and council officers and members.

2.2   Analysis of responses

Analysis of the consultation responses was carried out by a team of three researchers at the Leverhulme Centre for Nature Recovery: an ecologist with local knowledge of Oxfordshire habitats and species, a researcher specialising in mapping and assessing opportunities for nature recovery in Oxfordshire and elsewhere, and an Artificial Intelligence (AI) specialist. The team worked closely with the LNRS committees throughout the process.

To analyse the large number of responses in the limited time available, a two-stage approach was used. First, Artificial Intelligence (AI) was used to classify the responses into an initial set of themes (see Appendix 2). These themes were then checked, refined and consolidated by the experts, and the AI classification was then re-run. The final AI classification of the comments into themes was then manually checked by the experts, covering 36% of the total comments (100% of the emails, 54% of the online survey comments and 21% of the map comments). Agreement with the initial AI classification was generally high for most themes, with some exceptions (see Section 3.4).

This classification was then used to extract the individual comments relevant to each theme, and these comments were then all read in detail when writing the different sections of this report. For example, when writing Section 4.1 on document usability and readability, we extracted all the comments classified under that theme and used them to identify the key requests for change, e.g. providing an overall summary (Section 4.1.1), an overarching vision (Section 4.1.2) and extra guidance (Section 4.1.3). We have illustrated each theme with typical quotes from the responses. During this process, every comment was read in detail, whether or not its classification into themes had been manually checked.

2.3   Identifying proposed actions

An extra layer of analysis was carried out to identify proposed actions related to each response. In particular, this was focused on identifying areas to add to or remove from the LNRS map of target areas.

For the map comments, it was difficult to automatically extract just the comments requesting additions or removals from the network. This is because people interpreted the comment categories differently. The 'I would like to take action here' category was not always used for proposals of actions, perhaps because many people assumed this was only for use by the landowner. Therefore, many action proposals are contained in the 'Observation, comment or idea' category. These required manual identification, which was very time consuming.

Also, it was not always clear whether observations on ongoing or planned nature recovery actions, or observations of existing biodiverse habitats or species, were explicitly intended as suggestions that the area should be included in the LNRS target area map.

3. Breakdown of responses by theme

Here we provide an overall summary of the findings, covering the number of responses and the classification into themes. Section 4. then addresses the individual themes in detail.

3.1   Number of responses

There was a total of 2143 responses to the consultation, the majority as comments attached to pins on the map (Table 2).

Some (17) of the 127 survey responses only filled in one overall question about whether the LNRS draft documents and map were considered to be a helpful set of priorities, and they left no further comments, but the rest (110 responses) left comments.

Of the 1,975 map pins, 435 were blank, i.e. had no comments attached. Some of these pins were used to indicate agreement with the map and used the category that represented this. Whilst some blank pins may represent genuine general agreements with the map layers, some may also represent user errors, as the consultation interface did not have the ability to enable users to move, edit or delete pins after creating them. Indeed, a few pins were explicitly identified as being a mistake, in nearby comments by the same user. In addition, a small number of map pins (30) contained offensive or unrelated comments which were not directly related to habitat enhancement or creation and which represented a misuse of this consultation. This left a total of 1510 valid map pins which contained relevant comments for analysis.

Table 2. Number of survey responses by source

Source of response	Number of responses
Map valid comments	1510
Map blank pins	435
Map irrelevant pins	30
Survey responses with comments	110
Survey responses with no comments	17
Emails	41
Total responses	2143
Total valid non-blank responses	1661

Most of the valid non-blank map comments were either 'Observation, comment or idea' (47%) or 'I would like to take an action to support biodiversity that isn't currently mapped' (35%), with much fewer in the other two categories ('I agree / disagree with something here', 9% each) (Figure 1). The breakdown of blank pins is shown in Figure 2 for comparison – the majority appear to be attempts to express support (I agree with something here / I would like to take and action here), although it seems highly likely that the 92 blank 'Observation' pins represent mistakes, and this may therefore be the case for the other categories as well.

Figure 1. Map pins which contained a comment (valid pins), by type of pin
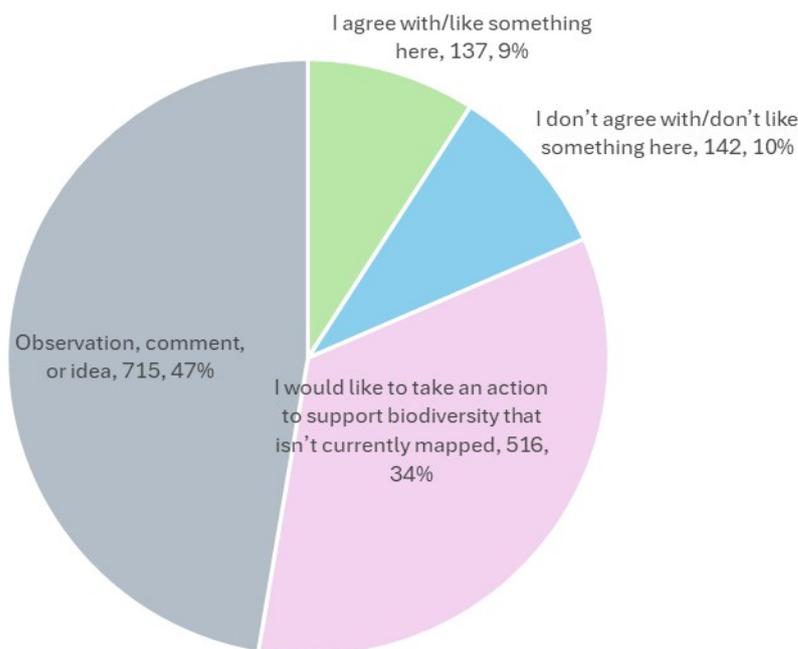
Figure 2. Map pins which were blank, by type of pin
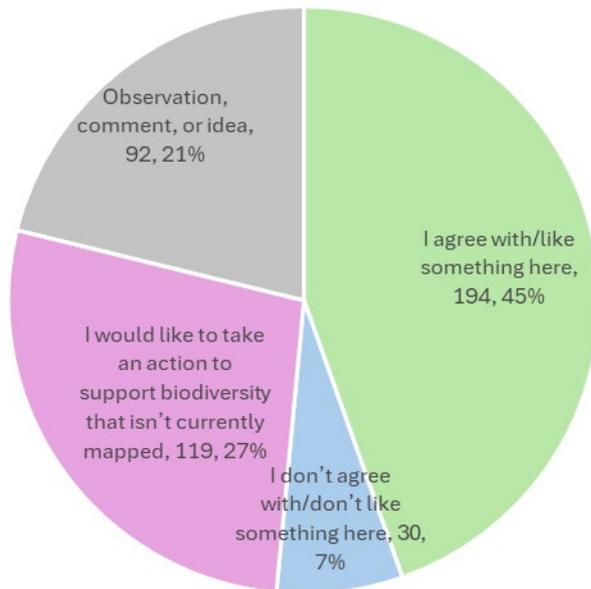
For the survey questions (Table 3), the Statement of Biodiversity Priorities attracted the most responses (95 out of the 127 responses). Most of these comments involved adding text, adding priorities or making general remarks – there were far fewer suggestions to remove text or delete potential measures. Next was the 'General' category, for any other comments on the LNRS, which attracted 84 responses. There were fewer responses for the Species Priority List (58, mostly about adding species or adding text) and the Description of the Strategy Area (49).

The 41 email responses contained a mix of formats. Some emails included pdfs or Word copies of the online survey, and could be classified into the same categories as the survey questions. Others were comments that referred specifically to the map or to other general points about the LNRS. The largest category was general comments (31), followed by comments on the Statement of Biodiversity Priorities (19) and the Species Priority List (16). The number of comments responding to each survey question is shown in Table 3, alongside the number of each type of map comment. There were 1880 comments in total (more than the 1661 valid responses, as each survey or email response typically addressed multiple survey questions).

Table 3. Number of comments for each survey question or map pin category

	Survey	Email	Map	Total
Description of strategy area	**49**	**8**	**0**	**57**
Changes to Description of Strategy Area	49	8	0	57
Statement of biodiversity priorities	**95**	**19**	**0**	**114**
Missing priorities or text in Statement of Biodiversity	22	5	0	27

Priorities				
Remove text from Biodiversity Priorities	8	1	0	9
Add text to potential measures	33	6	0	39
Exclude measures from Biodiversity Priorities	3	1	0	4
Anything else - Biodiversity Priorities	29	6	0	35
Species priority list	**58**	**16**	**0**	**74**
Missing from species priorities list	25	4	0	29
Remove text from Species Priority List	4	4	0	8
Anything else - species priority list	29	8	0	37
Map	**0**	**9**	**1510**	**1519**
I agree with/like something here	0	0	137	137
I don't agree with/don't like something here	0	1	142	143
I would like to take an action to support biodiversity that isn't currently mapped	0	7	516	523
Observation, comment, or idea	0	0	715	715
Anything else - map	0	1	0	1
General	**85**	**31**	**0**	**116**
Anything else - general	85	31	0	116
Total	**287**	**83**	**1510**	**1880**

3.2 Overall agreement with the LNRS

The first question in the survey was "Have the LNRS documents and map created a helpful set of priorities and actions to improve biodiversity in Oxfordshire?" There was broad agreement that the LNRS components were useful, with 74% agreeing (25% strongly) and only 12% disagreed (5% strongly) (Figure 3).

Figure 3. Have the LNRS documents and map created a helpful set of priorities for Oxfordshire?
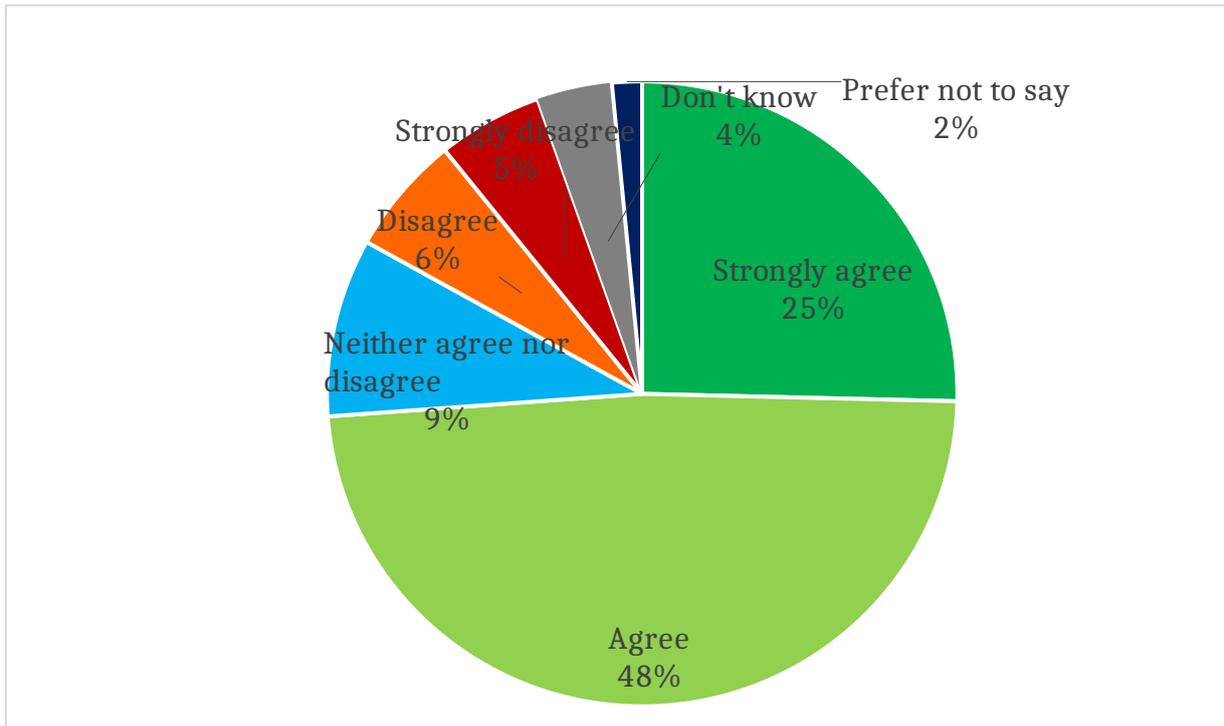
3.3 Classification into themes

The map, survey and email comments were all categorised using the same themes using AI and then a selection were manually checked (see Section 2.2). The responses by overall theme and detailed theme are shown in Table 4, Figure 4 and Figure 5.

Table 4. Responses classified into themes (each response can have more than one theme)

Overall theme	Detailed theme	Responses
Map corrections, suggestions and disagreements (684)	Proposing PM where none exist	346
	Disagree with mapped PM	83
	Missing geographic features on map	41
	Habitat misclassification	22
	Information on local nature features or activities	191
Document suggestions (177)	Factual inaccuracies or lack of detail in document contents	100
	Document usability and readability	72
Overall process and scope (219)	Lack of confidence in the LNRS concept	22
	Implementation / action concerns	53
	Community engagement and local knowledge	140
Intervention types (1584)	Habitat creation	386
	Habitat protection	231
	Habitat management and enhancement	381
	Habitat connectivity	246
	Rewilding	20
	Water quality	29
	Species-specific concerns	293
Habitats (1560)	Woodland / trees	353
	Scrub	48
	Hedgerow	114
	Grassland / meadow	320
	Verge	28
	Heathland	8
	Wetland	173
	Pond	95
	Rivers and canals	166
	Habitat mosaics	26
	Agriculture	112
	Urban biodiversity	115
Wider benefits and trade-offs (330)	Accessibility, health and wellbeing	78
	Other wider benefits (for people)	79
	Land use conflict	53
	Development concerns	119

Figure 4. Responses by detailed theme
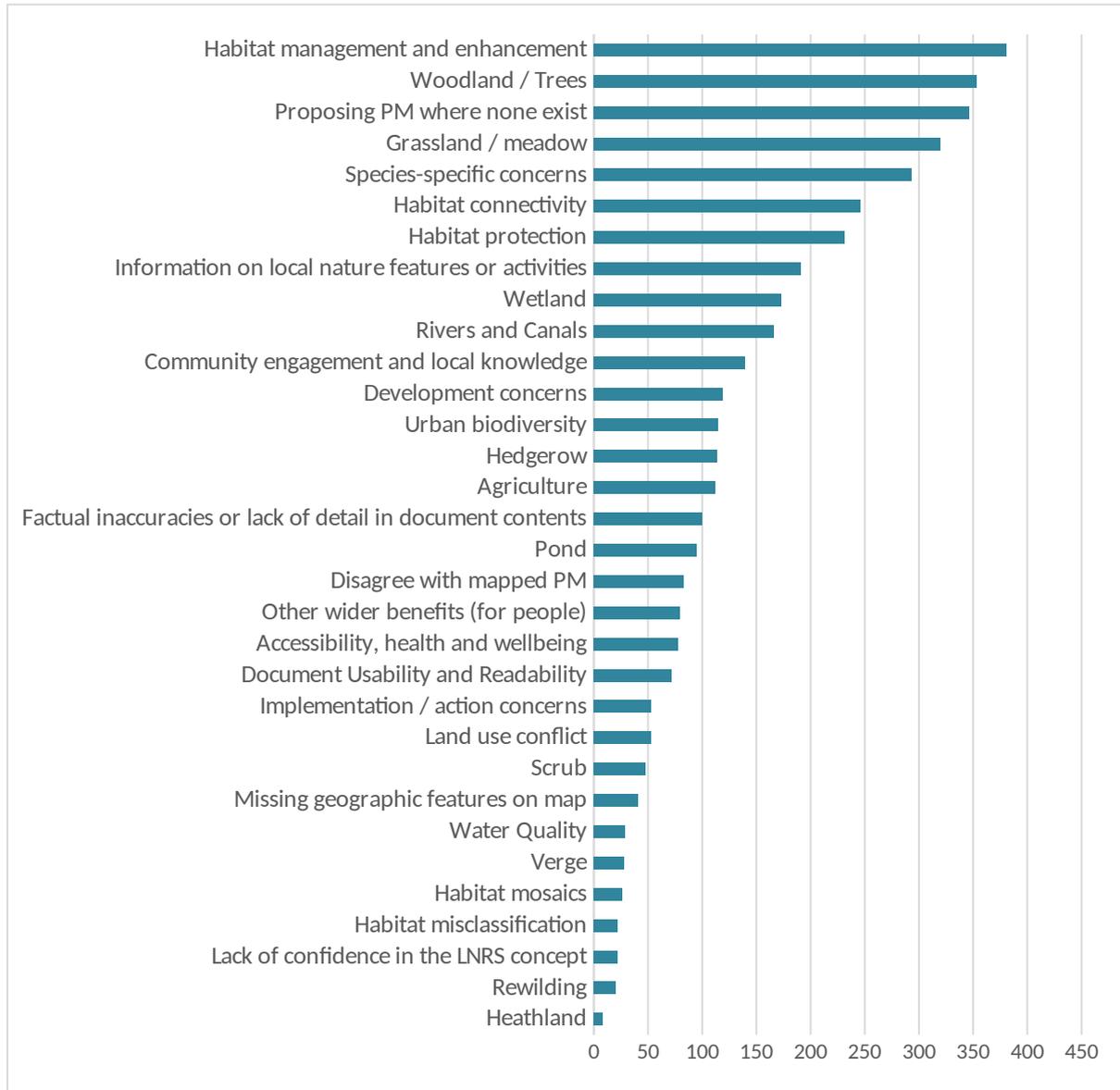
The most commonly mentioned habitat types were woodland or trees (354 comments) and grassland or meadows (320), followed by wetlands (173) and rivers / canals (166) (Figure 6). Next came urban biodiversity, hedgerows and agriculture, followed by ponds, scrub, verges, rewilding and habitat mosaics. Just 8 comments mentioned heathland – perhaps not surprising as there is very little heath in Oxfordshire.

Figure 5. Responses by overall theme

Points by type of theme

New action 8%
Species 7%
LNRS components 11%
Issue / sector 16%
Habitat 30%
Nature recovery action 28%
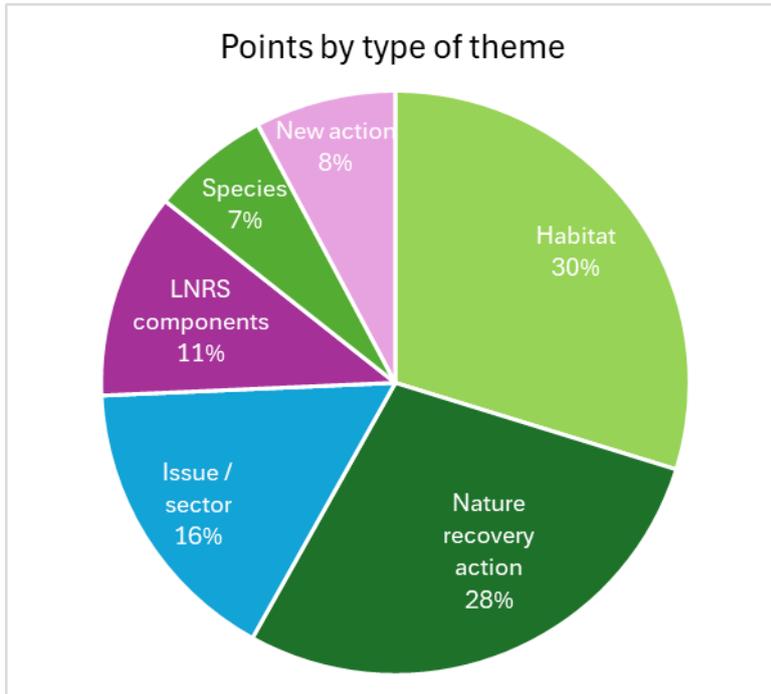
Figure 6. Number of comments referring to broad habitat types

Rewilding, 21
Habitat mosaics, 26
Agriculture, 112
Woodland / Trees, 354
Grassland / meadow, 320
Heathland, 8
Hedgerow, 114
Wetland, 173
Pond, 95
Verge, 28
Urban biodiversity, 116
Rivers and Canals, 166
Scrub, 48
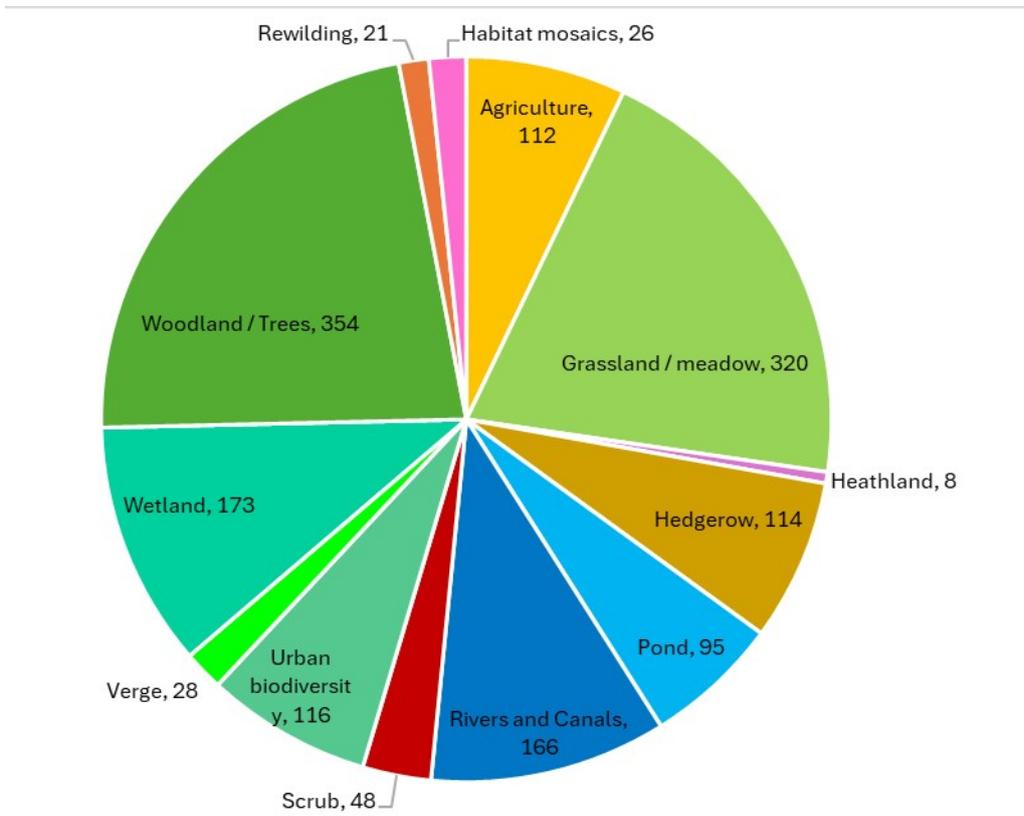
3.4 Accuracy of the classification into themes

The researchers generally agreed with most of the AI theme classifications. Areas where the AI was not always correct include:

- AI did not always correctly distinguish between habitat creation and habitat management or enhancement, probably because terminology can be confusing here (e.g. 'restoration' can be used to refer to both of these activities).

- The AI analysis tended to omit classification of the comments on the map into 'proposing potential measures where none exist' or 'information on local nature features and activities'. These categories were added manually to the comments that were manually checked, but this was time-consuming and therefore it was not done for all comments (all emails and survey responses but only the first 170 map comments). Therefore these categories are under-represented in Table 4.

- The theme 'Missing geographic features on the map' was intended to pick up, for example, missing woodlands or waterbodies, but most of the comments classified under this theme were actually requests to include additional areas within the LNRS map of Potential Measures.

- Similarly, 'Habitat misclassification' covered a mixed set of issues where people disagreed with the LNRS map in various ways. It would have been better to rephrase this theme more clearly.

Even when manually checking the comments, it was often difficult to distinguish whether a brief comment on the map that identified areas where there is existing or potential biodiversity value (e.g. priority species or habitats observed, opportunities or requests for improved management, or information on ongoing or planned restoration work) should be categorised as 'Proposing potential measures where none exist' or 'information on local nature features and activities'. In retrospect, it would have been useful to have more sub-categories for these options as well as categories which made clear whether the respondent was the landowner/manager of the land in question.

4. Overarching themes

Several overarching themes emerged from the consultation, which spanned several of the LNRS documents and/or the map. Here we provide brief summaries of these themes, before summarising comments on the individual documents and map in Section 5. (with more detail in Appendix 3). The themes we cover here are:

- Document usability, including the need for a more concise summary

- Greater emphasis on nature in urban areas

- Possible creation of large areas for nature

- Better integration of the wider benefits of nature recovery for people

- Development concerns and other land use conflicts

- Water quality

- Delivery, funding and community engagement.

- Targets, monitoring and evaluation

4.1 Document usability and readability

72 comments referred to the usability and readability of the draft LNRS documents. There were also 7 comments on the usability of the map interface which are reported in Appendix 3 (Section 4.1).

Many comments were broadly positive, with appreciation of the amount of effort that had gone into preparing the LNRS, and recognition of the expertise of the team, e.g.

- It's clearly laid out and not overly long and complex (Email 1, about the Statement of Biodiversity Priorities)

- I feel that the statement of biodiversity is well written in a meaningful way. It would be good to have a search function when using this document as a reference once it is finalised (Survey 17)

- This is well written and structured. The description of each NCA is clear (Email 9, Description of the Strategy Area)

- The Description of the Strategy Area is very well written and helpful (Survey 76).

- We wanted to comment positively on the way the SBP is written; we find it easy to navigate and really appreciate how this links into the wider ecosystem services/natural capital approach, as well as on biodiversity. As part of our asset standards, we seek to include natural capital assessments into our design. (Survey 107, Thames Water)

However, some clear themes emerged around the length and clarity of the documents, summarised below.

4.1.1 Length of the documents and need for a summary

A common theme was the need for a short summary of the overall strategy and summaries of the individual documents, to enable people with limited time to more quickly understand and comment on them (e.g. Survey 100, 102, 104, 121 and others cited below).

- Diverse communities and social groups should be inspired to take action. However, the length of the strategy and level of detail provided is currently a potential barrier to engagement. (Email 25, OLNP).

- I wonder if a lighter-touch version could be offered to the wider community, alongside a simple executive summary of the key points? (Survey 24)

- The SBP needs to be shorter, more concise and manageable. Probably all important but too large as a guiding document. Will there be a readable version for children? (Survey 47)

- We suggest that a plain/inclusive language summary is produced for wider accessibility (Survey 72)

- Can there be a single main document of 20-30 pages, including generic principles, targets, wider benefits of nature, threats to nature, main habitat restoration opportunities, and a picture of the map, with the detailed documents as Appendices. This should explain clearly how to use the map and the SBP. (suggestions amalgamated from Survey 74, 86, 100)

- The volume of the documentation is too much for most members of the public to digest. People like me who are volunteers working to enhance habitats need to have a concise summary of proposed actions and priorities. please produce a concise outline of the Strategy plus an information campaign to ensure that people in Oxfordshire understand the critical importance of having concrete plans to conserve and restore nature. (Survey 85)

- I don't have the time to analyse all these documents. I need a summary that I can make an informed decision on please. (Survey 94, farmer).

- I found the detail impressive, but also daunting. It is challenging for an 'ordinary citizen" to grasp and critique. (Survey 119)

4.1.2 Overarching vision or principles

There were some requests for an overarching vision or set of principles.

- This is a very comprehensive and readable description of the Strategy Area.
  This is however a lengthy document and its usability … could be aided by an opening set of overarching principles or aims. (Email 14)

- The LNRS requires a succinct, compelling articulation of its vision, accompanied by some high level but S.M.A.R.T. goals/objectives. Oxfordshire Local Nature Partnership has begun to work this up, via the production of the draft Nature Recovery Narrative (Email 25)

- Need for a single vision or statement of principles, otherwise there is a risk of a fragmented approach rather than a 'systems'/joined-up approach. (Email 33)

- There should be a set of overarching principles to show how Oxfordshire would like to do things better for nature, and stop doing things that are bad for nature. This can cover organic farming, connectivity, averting damage from development, dark skies, hedgerow planting and laying, reducing livestock, eliminating pollution including from sewage, restoring

soils by enhancing nature, and using habitat engineers such as beavers. (Survey 86, 100).

- P5 of the DSA effectively says we are aiming to restore rare and special places. Are we just trying to protect and enhance the good bits, or are we trying to bring nature back to the nature-devoid parts? (Survey 86).

- Could we create catchier names for the different zones on the map e.g. Core Zone for APIBs, Recovery Zone for the mapped measures and Wider Landscape for other areas? (Email 11, BBOWT) (See also Appendix 3 Section 4.1)

4.1.3 Separate guidance documents or summaries for different audiences

The Oxfordshire Local Nature Partnership (OLNP) suggests separate short guidance documents for planners, farmers, community groups, businesses and funders, and offer to help with this. (Email 25)

Similarly, REBORN requests guidance on how the LNRS should be used, especially how to use detailed surveys on the ground to select from multiple PMs, as some are not suitable due to the use of generic county-wide datasets. (Email 16)

4.1.4 General edits and proof reading

Many of the comments included detailed suggestions for minor edits to the documents to improve clarity, reduce repetition and correct typos (e.g. Emails 6, 11, 9 and 17, Survey 86, 106), and general requests for better proof-reading (Survey 44, 49, 86, 100).

Some terms need clearer explanations for the non-specialist, e.g. clarifying that 'improved grassland' refers to agricultural improvement and is not better for nature, and explaining that 'nutrient imbalances' refers to algal blooms (Survey 86 notes several of these examples).

4.1.5 Confusion about the purpose and scope of the three LNRS documents and the map

Finally, there was some confusion about the purpose of each of the documents and the map, and how they related to each other. Examples include:

- We need guidance on what order we should read the documents in - I read them in the wrong order. Can a picture of the Local Habitat Map appear in the Statement of Biodiversity Priorities, and possibly delete the other map of the pink priority areas to avoid confusion? (Survey 86)

- Guidance is needed on the purpose of the Statement of Biodiversity Priorities - the reader is faced with a long list without really understanding what it is for (Survey 74).

- Why is a species priority list was needed as well as the habitat-based priorities, can't they be combined? (Survey 66, 86). Would this reduce repetition on habitat management? E.g. a landowner could think "OK I'll

manage hedges better and this would help all these species." (Survey 86). Should it be an appendix? (Survey 74, 86)

- Can there be links between the species and the relevant potential measures for different habitats? (Email 14).

- Some species are both in Description of Strategy Area 'Species on the Brink' and in the Species Priorities List e.g. the curlew) which creates repetition. (Survey 86).

4.2 Urban areas

Six emails and 22 survey responses argued for a much greater focus on urban biodiversity, often linked to points about the wider benefits for climate resilience, human health and wellbeing (see Section 4.3) as well as development concerns (Section 4.5).

This theme also emerged strongly in the map. Although only 72 pins had comments that were classified as relating specifically to urban nature, 450 pins (30% of all the pins with valid non-blank comments) are located in urban areas (based on Ordnance Survey Zoomstack urban areas). These pins typically identified existing urban habitats and species, planned or ongoing work by local groups, and opportunities for enhancement and creation of urban habitats and corridors. These are discussed further in Appendix 3 (Section 4.2.4, requests for areas to be added to the Local Habitat Map). In addition, many focussed on concerns over loss of urban habitats to development (see Section 4.5.3).

- The Statement of Biodiversity Priorities should state the need to create space for nature in urban development, e.g. street trees, wildlife-rich gardens, verges, green spaces, green roofs and walls and SuDS, as well as swift bricks and bat boxes. This brings added benefits for shade, cooling, carbon absorption and air quality. (Email 11)

- Priority P35 and Measure PM76 (reduce pesticides) should apply to urban areas as well as agricultural land (Email 11).

- Comments about the importance of the urban corridors would be welcome (Email 20).

- I'd like to see more trees and shrubs in Botley Park, Oatlands Park, Osney Cemetery and St Sepulchre's Cemetery, and street trees in Ferry Hinksey Road. (Email 30).

- Advice for allotment plot holders and gardeners would be welcome. (Email 30).

- We need more green areas in Bicester supporting diverse wildlife (Survey 18).

- Please expand the section on Wider environment - towns, cities and green spaces. (Survey 7, SBP)

- Very little importance seems to be attached to the role green space and gardens play in urban areas. Give people ideas and tools for taking action in their own localities, street and gardens. (Survey 11)

- We must ensure that there are green spaces around developments, and

they are richly bio-diverse instead of just green, and that municipal planting is cared for and provides food and shelter for fauna (Survey 42)

- Would like more emphasis on a joined-up vision of nature recovery connecting habitat pockets in towns and cities into corridors, recognizing the tremendous value of nature close to people, especially in deprived areas. This can mitigate growing urban threats including pollution, heat and flooding. PM79 (Create and improve wildlife-rich corridors through towns and cities) could be enhanced by designating habitats of existing biodiversity as City Wildlife Sites and Urban Green Spaces. (Email 33).

- Can urban green spaces be included in the plan for creation of tiny forests, ponds and wildflowers. The edges of these urban parks have lots of opportunity to bring nature into urban areas with high social value benefits (Map 10).

- I strongly agree with the comment about using urban green spaces, for Tiny Forests, ponds, naturalising of water courses, no-mow areas, selective trees and hedge planting, etc. So much could be achieved by LESS mowing and cutting hedges! Needs funding to create a plan for each green space, and to get local people involved in making decisions. I have already marked off a small area and an aspen colony has quickly established in 1.5 years. (Map 590)

- In the Description of the Strategy Area urban areas are often just framed as causing problems (e.g. runoff). Can we emphasise where species such as hedgehogs, swifts and bats can be helped in urban areas, e.g. by including icons in the Species Priority List for water, urban, meadow, woodland etc? Also note the new Nature Towns and Cities initiative. (Survey 64)

- Nature in urban areas is not discussed in this LNRS. Information for householders in urban and rural areas should be provided to encourage wilding of gardens, reduced lighting, stopping insecticides on pets and slug pellets in gardens. (Survey 86)

- The LNRS doesn't give enough priority to nature in towns and cities, either for biodiversity or for the high value of the wider benefits close to people. Although urban environments make up a small proportion of the land for nature in Oxfordshire, mapping and connecting these small pockets is of critical importance for nature protection and recovery, both due to the level of threat and the opportunities this offers for urban resilience, societal benefit and collaborative action (Survey 115)

There were examples of biodiverse habitats in urban areas. For example, the Horse fields in Iffley were reported to have 636 invertebrate species, barbastelle bats, cuckoo, tawny owl, thrush, linnet and extensive badger setts (Email 28, see also Section 4.5.3). However, there were also comments noting the pressures on biodiversity associated with urban areas, including cats, dogs, high footfall, lighting, pollution, noise, and fragmentation by roads. (Email 33).

- There is no mention at all of dogs and the damage they do to ground nesting birds and small mammals and amphibians. Restrictions on dog walking is essential as asking owners to keep them on the lead is a waste of time. (Survey 4)

- Another of my concerns is the lack of consideration shown by many dog walkers for the ground nesting birds (skylarks) on Port Meadow. Someone puts signs up asking people to keep dogs on a lead during the nesting season, but many still let their dogs run free. How could we raise people's awareness about the importance of protecting nesting skylarks? (Survey 2)

- Could management of cats in areas with highly protected species be added to P15/PM31. Engagement campaigns may be effective in reducing cat predation of songbirds, amphibians and lizards. (Survey 24)

- Small, scattered pockets of urban nature are more vulnerable to climate change and endangered by habitat fragmentation from infill development or impermeable barriers. Pressures arise from high population density impacts on small pockets of nature, high footfall from humans and pets, pressure to serve multiple uses, and urban pollution (air, water, light, noise) (Survey 115)

Further specific suggestions are contained in Appendix 3, including suggestions for strengthening P37 and PM77-79 on urban nature (Appendix 3 Section 2.2), and adding more information on how to help species using urban areas such as swifts, house martins, hedgehogs, bats, and even hairstreak butterflies (Appendix 3 Section 3). See also Appendix 3 Section 4.2.4 on adding more urban areas to the map.

4.3   Creating large nature reserves or parks

BBOWT, Bioabundance and REBORN asked to include priorities and measures to create at least one large nature reserve / nature park, on the grounds that large areas are more resilient and can attract more funding and support. Suggestions focused on the Bernwood, Otmoor and Ray area and the Upper Thames - Lower Windrush catchments. Their specific suggestions for changes to the other LNRS documents are covered in Appendix 3 Sections 1 and 2, and their suggested areas to add to the map are covered in Appendix 3 Section 4.1.2.

- Ecological theory and evidence shows that there are many species that do not fare well in small areas of habitat, and need a large area of natural habitat. Compared to many other counties, Oxfordshire has a clear lack of large nature reserves. So we think it is important that the LNRS set out a strong ambition for large-scale nature reserves at a regional scale, with managed visitor access, paths and hides, and a visitor centre. We would like to see a vision for at least one, and ideally more, large scale nature reserves of around 5,000 hectares, including a large wetland nature reserve complex similar to the Great Fen and Wicken Fen Vision in Cambridgeshire and the Avalon Marshes in Somerset. Potential locations include the Otmoor and Upper Ray area and the Upper Thames and Lower Windrush catchments (Email 11, BBOWT)

- Bioabundance has long championed a bold new strategy of creating a 100 square mile Regional Nature Park extending from the ancient forests of Bernwood, Stowood and Shotover to the Ray wetlands and Brill Hills. A large, consolidated area like this has a better chance of saving nature than the smaller skinnier nature recovery network areas in the Local Habitat Map. (Survey 86, Bioabundance)

- We need to do more than simply protect small areas (albeit there are a lot of them) that are not always easy for species to travel between. Just two or three Nature Reserves of 500 acres plus (ideally 1,000 acres plus) linked by Natural Corridors could just get us to a scale where Nature can recover and thrive, not just keep a fragile grip on survival. (Email 22)

4.4   Wider benefits and trade-offs

I want to express my support for nature as an Oxfordshire resident. I would always be in favour of anything that can be done to increase biodiversity, as **this helps people too**! (Survey 109)

A total of 144 comments referred to the wider benefits of nature recovery for people, of which 78 comments focused on access to nature for human health and wellbeing and 79 mentioned other wider benefits such as food production, flood protection and carbon storage, with 13 referring to both. However, to complement this, one response also asked that we recognise the intrinsic value of nature, e.g. by adding the statement "Wildlife is of intrinsic value in itself, irrespective of its value to humans" to the DSA (Email 11, BBOWT).

The main request was for wider benefits (human health and wellbeing, flood risk reduction, and others) to be more visible and prominently integrated into the LNRS. Typical responses are summarised below. The two subsections then discuss i) access to nature for health and wellbeing, and ii) other wider benefits.

- We increase the actions taken for nature when we foreground the opportunities for nature-based solutions. We need to move away from siloed thinking and see nature as part of a wider land use systems approach, prioritising nature recovery actions where they will deliver multiple benefits. The LNRS should pay more attention to the climate resilience aspects of nature recovery. Perhaps we can even re-run the prioritisation software to prioritise habitat creation for some of these outcomes. OLNP also strongly supports OCC Public Health's response around including elements of our People and Nature work, and strongly supports using the Equitable Greenspace mapping by Martha Crockatt at the Leverhulme Centre for Nature Recovery for spatial prioritisation of nature recovery. Similarly, the natural capital mapping by Alison Smith at the Environmental Change Institute could be more closely incorporated into the map so that we focus nature recovery efforts where they deliver multiple benefits. (Email 25, OLNP)

- The health, nature, and climate crises are inextricably linked - which therefore means that any actions to address them must be aligned and

complementary. A reliance on co-incidental and unmapped 'wider environmental benefits' risks exacerbating biodiversity loss and health inequality in the long term. Furthermore, positive synergies built through so-called 'nature-based solutions' will be missed. (Survey 72)

- Mentions of ecosystem services are scattered around, e.g. pages 5 and 9 of the DSA, for each NCA, for different potential measures, and in Appendix 1 of Biodiversity Priorities. It would be better to have one clear section on 'benefits of nature' up front, to reduce repetition and improve consistency, as most apply to most NCAs and PMs. This should also include nutrient recycling and emphasise that food production depends on a healthy environment. (Survey 86, 100).

- This Local Nature Recovery Strategy needs to sit alongside a Land-Use Strategy for Oxfordshire that addresses issues such as food and flood risk. The interactions between different land uses (development, industry, nature, farming, renewables) must be clearly understood. Decision-makers need to understand the interaction of land-use, planning, social and nature recovery policies to safeguard the well-being of present and future generations. At present many of these policies are developed and managed by separate teams of officials - a coherent framework is needed to coordinate all this work. Cornwall, and other councils, are using Doughnut economics as the coordinating framework. It is highly recommended that these innovative approaches to local government should be assessed by our Councils in Oxfordshire. (Survey 100).

- Is this strategy being developed in conjunction with strategies for other types of land-use in the county (infrastructure, energy, food and fibre production). Otherwise it is difficult to see how trade-offs between land-uses can be balanced effectively. (Survey 66)

- Can we map a robust network of nature-based solutions for nature recovery in towns and cities that maximises the huge value of nature's wider benefits close to people. (Survey 113)

4.4.1 Accessibility, health and wellbeing

The 78 comments referring to access to nature and its impacts on health and well-being included 8 email comments from 7 respondents, 15 survey comments from 11 respondents and 55 map pins. As well as comments that directly discuss this theme, there are many comments from residents that show how deeply they care for nature and how it supports their wellbeing.

> I love Lye Valley. I love walking there from Marsh Park, across the golf course and through the valley up to Wood farm and back again. I am grateful for this wonderful space in the city. (Email 31)

There was a substantive response from the Oxfordshire Public Health team (Email 5 and Survey 72) which argued for much greater recognition of the importance of people-nature interactions in the LNRS, and the role nature

recovery can play in addressing socio-economic and health inequalities. A major part of this is cited in Box 1; see also the full response with references, and Appendix 3 (Sections 1, 2 and 4.2.4) for suggested changes to the LNRS documents and map.

Similar concerns were echoed by other comments, e.g.

- Limited mention of the more intangible benefits of nature, such as its effects on individual mental and physical health, and on building supportive communities, whereby people interact in natural spaces (Email 33)

- It would be nice to see a stronger focus in some areas on community benefits. Should a priority also be placed on green spaces in poor condition in highly populated areas, or for targeting restoration efforts towards communities that have poor access to nature reserves /greenspace at present. (Survey 36)

- Social justice considerations should surely be part of nature recovery, to give those living in greatest deprivation improved access to calming green spaces. (Email 26)

- Can we have some mention of the Oxford Green Belt as a designated landscape with huge potential for access to the countryside and wellbeing (Survey 74).

Several comments and pins on the map identified places important for their wellbeing, or made suggestions about improved access to nature

- This place is so important to me. It has been instrumental in maintaining positive mental health for almost 30 years, I constantly worry it will be "developed" on. My children and I walk here often and it holds a memorial to one of my closest friends. (Map 1541)

- These fields provide rich habitats for a huge variety of wildlife, and a priceless unregulated amenity where everybody in the area and beyond can find mental and physical refreshment as and when they need it. They may be historic landscapes, but they are also lifesavers for us all, now. (Map 1742) (development conflict)

- I've loved going along Meadow Lane for 30 years. It's a peaceful route into town, and in Iffley it is of a rural nature, bordered by trees, hedges and unploughed fields. We inhabitants - current and future - NEED all this for our mental and physical wellbeing. Walking locally in natural surroundings like these is irreplaceable. (Map 1793) (development conflict)

- We are linking with this outdoor space to create Health Walks for people at or attending or in Nuffield Orthopaedic Centre. Such an important space. (Map 1764)

- Mental health benefits having this woodland path so extending it upstream very good idea. (Map 106)

- Areas of this cereal field flood regularly leading to failed areas of crop (adjacent to public footpath). There is an opportunity to work with nature, and create scrapes and ponds to support wildlife, incorporating board walks for public access. There may even be an opportunity to re-wiggle the stream. (Map 418)

- This whole area of Iffley meadow must be preserved as is with careful management ongoing as is. It is loved and appreciated by many many local residents for nature and space. Vital for mental well-being and exercise. And it floods regularly so preserve trees here. (Map 974)

- I love Shotover Country Park as place to enjoy nature and improve my wellbeing. (Map 1728)

- Access to rivers in the county could be better. Access to the Thame for example is quite limited. (Survey 70)

- Oxfordshire has a good number of community woodlands, many created in the late 90's early '00s. I feel these merit special mention and mapping as they are important areas where people - often in rural communities - can experience nature. Much of the wider countryside is nature denuded and even for a rural community getting 'up close' to nature can be difficult. The community woodlands are key places to address this shortfall. (Survey 124)

Related to this, BBOWT requested two new priorities focused on enhancing people's understanding of nature (Email 11):

1. Large scale nature reserves with visitor centres.

2. Education and lifelong learning

BBOWT envisage a large-scale nature reserve outside urban areas (see also Section 4.3), to avoid damage from human pressures, but still accessible to a wide range of visitors. While they fully support the measures around urban nature, they also see a need for people to experience "larger and wilder places away from urbanisation". They emphasise how this could deliver for both people and nature:

- People could experience the multiple benefits of visiting a large wild place with a great diversity of wildlife, and/or learning about nature in a visitor centre or at an event or guided walk. We consider that Education and Lifelong Learning is at the heart of conservation, to help people grow up to love wildlife and understand more about wildlife and how ecosystems work, so that they seek to conserve it and understand how to conserve it (Email 11).

Box 1: Response from Oxfordshire Public Health team (Email 5, edited to shorten)

Public health as a discipline is unequivocal that thriving natural systems – and

ways for people to connect with them – are [fundamental to wellbeing](). Benefits of or 'gifts' from nature (from the food we eat, to space to be physically and socially active, to flood and heat mitigation) all rely on acts of reciprocity from people, which in turn help us to maintain a positive relationship with the more than human world. For this reason, we fully support a strategic approach to Nature Recovery in Oxfordshire as integral to public health needs.

We have responded to the consultation based on professional expertise in whole systems approaches to wellbeing and planetary health. Whilst we welcome much of the content, we are concerned that it misses an important opportunity to take an aligned approach to the joint crises of biodiversity loss, climate change, and health and social inequality. Integrating these themes is not only possible without detracting from core aims, but also necessary to ensure longevity of the strategy and wider relevance to public policy around health and wellbeing, climate action, sustainable transport, and inclusive economies.

We would like to see the following key changes:

- Clearer and more sensitive articulation of the complex relationship between the human health and nature

- Recognition of health and social inequity as fundamental to the Oxfordshire context for nature recovery, with specific reference to the unequal distribution of nature's benefits ('ecosystem services') – and how these can be employed as '[nature-based solutions]()' to promote health and wellbeing

- Mapping to evidence the above, using additional data and weighting.

- Strong advocacy for potential measures with multiple positive outcomes so that the strategy is environmentally, socially, and financially sustainable.

Some social value priorities may already be 'mapped' based on their close alignment to ecological priorities, for example improving water quality in 'wild swimming' hotspots. In this instance it is valuable to recognise multiple (and often complementary) benefits and outcomes. However, to enable these issues to be considered at the action planning stage, a clearer articulation of the opportunity for nature recovery to benefit human health is needed in the strategy itself.

Evidence is provided (see full response for links) on the wellbeing benefits of access to nature due to physical activity, social contact, community connectedness, skills enhancement, nature connection, cooling, air quality regulation, flood management, soil health, food security, education, and employment.

Importantly, access to nature is 'equigenic', i.e. good quality green infrastructure reduces the impact of socioeconomic disadvantage on health inequality. This is important given that Oxfordshire has ten of the 20% most deprived areas in England, 1 in 5 children living in poverty, 11-12 years shorter life expectancy in poorer areas compared to affluent areas, and higher than average levels of social isolation and loneliness. A quarter of adults do not meet physical activity recommendations and rates of depression and other types of poor mental health are rising. Yet certain groups typically have less access to nature, including those from lower income households, minoritised ethnic groups, refugees and asylum seekers, and people with disabilities or

long-term conditions.

Health and equality benefits from nature recovery can be delivered through Oxfordshire's strong strategic commitment to environmental equity and Healthy Place Shaping in line with the Environment Improvement Plan 2023. This approach combines high quality green infrastructure, community engagement, and sustainable healthcare initiatives such as green social prescribing. Recent evidence includes the Leverhulme Centre for Nature recovery, research highlighting Oxfordshire's 16 priority greenspace-deprived areas.

4.4.2 Other wider benefits for people

The 79 comments that mentioned other wider benefits of nature recovery focused mainly on flood risk reduction, followed by carbon storage, then water quality, with a few mentions of other benefits such as air quality. Comments on flood risk reduction noted the value of existing habitats such as floodplains, trees and wetlands, and described existing or future opportunities for natural flood management and nature-based solutions including SuDS (Sustainable Drainage Systems). A response from the Waste Strategy and Circular Economy team at OCC also highlighted links between nature recovery and the circular economy, especially around regenerative agriculture (Survey 46). Examples of typical comments include:

- Need a more direct consideration of co-benefits (Survey 24)

- Under Priority 37, referencing the creation of sustainable drainage systems (SuDS) can be a valuable way to improve biodiversity while also contributing to flood reduction. (Survey 111)

- The Statement of Biodiversity Priorities emphasises the multiple environmental benefits of nature recovery, particularly in terms of accelerating carbon sequestration, climate adaptation, and improving air and water quality. It is crucial to highlight these broader benefits through GIS mapping. Public engagement is a key component of landscape nature recovery, and accessible online maps can play a significant role in this. To make the maps more informative and user-friendly, one effective strategy would be to incorporate a colour-coded scale, indicating areas where the most significant impact for each ecosystem service (e.g., carbon sequestration, climate adaptation, air quality, water quality) can be achieved. This would allow for easy comparison of data across different ecosystem services and help identify priority areas for action. (Survey 111)

- Would like to see other benefits of nature added to the strategy and map. The Bernwood-Otmoor-Ray area will be very important for benefits such as access to nature and tranquillity, flood control and carbon sequestration. (Email 16)

- It is important for the existing built environment (as well as for new developments) that natural flood-protection from functioning floodplains and rewiggled rivers should be maintained and created. Floods were awful in Oxfordshire in 2024 and will continue to worsen with climate change. (Survey 86)

- Food Security should be placed as the primary benefit. We must protect pollinators and nutrient recyclers, look after our waterways which are now polluted and be aware of the damage from climate change flooding. (Survey 100)

- Carbon sequestration is an important ecosystem service. Expanding Oxfordshire's natural habitat will contribute meaningfully towards the county's carbon mitigation aims and ambitions. There should be more explicit reference to the speed of climate change, difficulty of habitats/ species to adapt, and the other pressures it affects, e.g. invasive species, pests and disease etc. (Survey 108)

- I was very impressed by Henry Dimbleby's book Ravenous which set out the strong case to a) proactively plant more trees for carbon absorption, and b) have a clear plan to balance food production with biodiversity - both being critically important. I did not see any directional articulation in the LNRS of how these might be resolved through the strategy. (Survey 119)

- When discussing how nature-rich green spaces in and around urban areas enhance the appeal of a place, it is essential to delve deeper into the why and how these spaces contribute to the urban environment, making it more attractive to residents, workers, visitors, and businesses, while also boosting the local economy. (Survey 111)

- The park, allotments and greenspace here offer a buffer from the road, locally grown food, and cooling to the local area. (Map 39)

- The site may benefit from a series of natural flood management projects such as bunds and leaky dams to reduce flooding downstream PM52. The site may also benefit from PM57 (Map 739)

- The Shill floods houses in the village despite construction of bunds in the recent past. Planting additional trees in the catchment area could help alleviate floods as well as increasing biodiversity (Map 1603)

- The Triangle is vital floodplain which protects Kidlington from even more severe flooding. The willow growing here acts as vital natural flood management. (map 1662) (development concerns)

- This whole area should be allowed to develop into woodland, lakes and wetland to retain more freshwater resource for biodiversity and reduce run-off into Hailey drain, which is causing flash flooding on Eastfield and Hailey Road below. (Map 1882)

4.5 Land use conflict and development concerns

119 comments expressed concern over housing and infrastructure development (8 email comments from 7 respondents, 76 map pins, and 35 survey comments from 26 respondents). These comments covered the relationship between the LNRS and planning policy, opportunities and risks of development, and distress over specific green spaces allocated for development. In addition, 53 comments (5 email comments from 5 respondents, 11 survey responses and 37 map pins) were classified as relating to land use conflicts between nature recovery and other uses such as farming and recreation, with five of these also referring to development concerns. Finally, there were 26 map pin comments added to a specific area (known as 'The Triangle') south of Kidlington which actively supported development of a football stadium in that location, plus some abusive comments on the same subject which had to be redacted (see Section 4.5.3).

4.5.1 Integrating the LNRS into planning policy

Several comments asked for clarification on how the LNRS would be used to help inform planning policy and planning decisions. Although it was recognised that Defra had not yet provided guidance on this issue (which has been promised as imminent), it was highlighted as being critically important information in order to deliver nature recovery in practice, given the large amount of planned housing and infrastructure development in Oxfordshire. Respondents stressed the need to protect existing ecosystems and the species that use them from development, rather than assuming they can be destroyed and then replaced with new ones. Loss of mature trees and hedgerows was a particular concern. Example comments are listed below.

- Look forward to seeing the next version with DEFRA's advice on its use in Planning by local planning authorities (Email 16)

- Address the issue of house building on the environment and destruction of biodiversity. Best to stop destruction rather than mitigate after. (Survey 26)

- There is a firm distinction between rural and urban settings. Is it worth recognising biodiverse land perceived as 'low grade green belt' at the urban-rural fringe where much biodiversity is being lost through development? Even with development, can there be stronger recognition and support for existing landscape features, hedges, trees, waterways etc? (Survey 67)

- It is extremely important to protect our existing green spaces and blue-green corridors, especially in urban areas where these are often disregarded or seemingly seen as unimportant. Once we lose these precious sites, they will be gone forever. (Survey 7)

- We appreciate that the document may not be used to proscribe development, dictate organic farming, or demand reduced sewage outflows. But it is absolutely its responsibility to show the effect on nature

and to make the case for nature. Current wording is mealy-mouthed about the damage of development, for example, saying that it could be beneficial if managed appropriately. That is simply not true. Land can never reach its full potential once covered in concrete. There should be a clearer description of damage from urbanisation - fragmentation, disturbance, pollution, lighting, etc. The LNRS should show where development will be particularly damaging. This gives better guidance to planners as to where to site new development. From the map, this includes almost anywhere near watercourses. (Survey 86)

- We need to prioritize what we have got already, which often represents rich eco-communities developed over time, so the most important biodiversity priority must be connected with preventing planning proposals that threaten it. For example, water pollution from development threatens the Lye Valley fen. (Survey 19)

- I would like to suggest a presumption in favour of trees. It is still common to see whole lines or fields of mature trees being grubbed out for development, most recently at the Oxford Science Park along Grenoble Road, and on the south side of Frilford Road in the village of Marcham. (Survey 21)

- The LNRS needs to be more realistic about the threats to nature and not dumb down the threat of development by saying 'considered development could improve the presence of biodiversity'. I would also like to see the inclusion of renewable energy such as solar power as a threat. The erection of vast swaths of ground mounted solar in Oxfordshire will have a detrimental effect on the benefits of nature and the natural capital it can provide such as aesthetic value, a sense of place, interaction with nature. Species such as bats also find it harder to forage for insects and travel along protected corridors of habitat due to the presence of solar farms. (Survey 63)

- It is difficult to take seriously, a document that talks about restoring and improving the environment, while making no mention of the very serious destruction that I can see happening if I travel around Abingdon or elsewhere in the UK due to house building. Trees ripped up, fields of soil bulldozed, and no visible attempt to protect or consider the wildlife or ecosystem (upon which we depend for our longer-term existence). (Survey 104)

- Bite the bullet. Include areas under threat from development and contest them. (Survey 19)

There were also two responses by local authorities which noted that some of the mapped measures are allocated for development, or proposed for future allocation. South and Vale District Council (Email 9, Box 2) noted that the LNRS could help to identify opportunities for integrating appropriate green infrastructure into new development, and also noted that the LNRS could be used to help inform the next iteration of the Local Plan. Oxford City Council

(Email 12, Box 3) noted that sites allocated for development had been included in the LNRS map and were concerned that this could raise expectations that the sites will not be developed. They said that the allocated sites should be explicitly identified within the LNRS map for clarity.

Box 2: Response from South and Vale District Council (Email 9, edited to shorten)

We have observed that some of the areas identified as having potential to become of particular importance to biodiversity are allocated for development in adopted local plans and/or proposed for allocation in emerging local plans. There might therefore be a conflict between the adopted and emerging local plans and the LNRS, although we note that the LRNS is not a constraint, but is rather about identifying opportunities, so it might be possible to achieve both with careful design and planning and the right specialist information. For example, Land adjacent to Culham Campus is allocated for development in the adopted South Oxfordshire Local Plan 2035 (Policy STRAT9) and is proposed for allocation in the emerging Joint Local Plan (Policy AS2). An area identified as having potential to become of particular importance to biodiversity falls within the site allocation, but aligns with an area identified for green infrastructure on the site concept plan, although another area with nature recovery potential is allocated for buildings. For the next Local Plan we produce, it is likely that the role of the LNRS in land use planning will be further developed and established, for example the role of a LNRS in site selection and site design. If so, we will be able to use the LNRS to inform the development of the next local plan in a stronger way than we have this time.

Box 3: Response from Oxford City Council (Email 12, edited extract)

We have identified a handful of locations which overlap with allocated sites for development in the adopted Oxford Local Plan and that are likely to remain so in future, reflecting the limited nature of development sites in the city. We are concerned that, at present, the message upon opening the mapping is not clear on this reality and is liable to cause confusion or raise expectations, setting out that for the designated areas: it is expected that government and local organisations would encourage actions in these areas through, for example, opportunities for funding and investment. The mapping should reflect the fact that these sites have been included in the Local Plan 2036, which is a statutory document that has been approved by the Planning Inspectorate.

We would also suggest that the description of the strategy areas should more clearly highlight that parts of the county are heavily constrained (particularly in more urban areas like Oxford city) and need to accommodate a range of land uses to support sustainable development. This is relevant context that would ensure the opportunities in the LNRS are framed alongside the various challenges to balancing land needs across the county and help ensure that expectations for future enhancements are managed appropriately.

4.5.2 Specific threats and opportunities of development

A range of specific opportunities and threats were highlighted covering Neighbourhood Development Plans, solar parks, measures to support bats and swifts, mineral extraction and dark skies. Key comments are listed below.

- I recommend prioritizing the integration of Nature Recovery Policies into Neighbourhood Development Plans to ensure that local initiatives actively contribute to and do not undermine the wider goals of the Nature Recovery Plan. (Survey 122)

- New development and extensions provide an opportunity to includes measures such as swift bricks and integrated bat boxes (Survey 14, 15)

- We need action to protect bat commuting and foraging routes in the city from inappropriate development (Survey 37)

- Can there be a section on how to integrate nature into solar parks, between the panels. If this is not possible, maybe policy should prioritise rooftop installations instead, leaving more space for nature and agriculture. (Survey 86)

- Large scale solar farms provide a major opportunity for increasing biodiversity, e.g. P11 mixed habitats, P12 create new large areas with a mix of habitats, P13 reduce need for permanent fencing. PM40 restore river diversity, PM52 create new ponds PM53 create reedbeds PM55 create floodplain meadow. PM 58 riverbanks PM 63 hedgerows and connectivity. (Survey 43)

- Gravel extraction should be listed as a threat, not an opportunity, so that policymakers can weigh up the damage it does against the perceived need for gravel. Whilst gravel pits may be restored in the long-term, right now we are in a nature emergency that does not allow for important areas to be excavated. Worryingly, gravel-bedded sections have been lost from much of the Evenlode and other rivers due to dredging (Survey 86, DSA page 67)

- Giving planning permission for mineral extraction adjacent to a fen (both types) and within its catchment will result in the fen going into serious decline or ceasing to exist. I appreciate that the LNRS cannot prevent development, but it will require decision makers to decide with open eyes and be publicly accountable. (Survey 110, Map 1904)

- There is no mention of Dark skies in the LNRS. Light pollution can affect wildlife by interrupting natural rhythms including migration, reproduction and feeding patterns. It is known to cause confusion to migrating birds, often with fatal outcomes. Research has suggested that moths, which play an important role in pollinating flowers during their nocturnal activity and have declined in abundance by 40%, might have been disrupted by light pollution. (Survey 63)

4.5.3 Specific local green spaces threatened by development

There were 61 comments expressing concern about specific local spaces threatened by, or already lost to, development. These often cited the importance of biodiverse green spaces to mental and physical health, aesthetic value, and a sense of place. Examples are listed below.

Redbridge Meadow in Oxford:

- Redbridge Meadow should be part of Oxford's Nature Recovery Network. It is located right next to the Iffley Meadows SSSI and is part of the river wildlife corridor. It is an important buffer for nature next to a busy road. Endangered water voles have been seen here. It should be, and once was, part of Oxford's green belt. Its position and the waterways that are part of it, make it an important part of the river landscape right in the city, and an amenity for people and wildlife. (Map 1338)

- These meadows are wildlife areas that are threatened by council developments. There is a conservation project here and it is a treasured part of Oxford's green belt, with an abundance of wildlife that is often hidden from view. Redbridge meadow is a haven of biodiversity. It's home to birds, bees, insects, foxes, hedgehogs, wildflowers and dung beetles and provides a much-needed sanctuary for the deer and other animals to escape floods. (Map 1232)

The Moors, Kidlington (housing development)

- The area behind the Moors (Kidlington) is vital for conservation of natural habitat for wildlife and wildflowers where I walk all through the year. Any building on the area will have a devastating effect on wildlife (Survey 63)

- Do not build on the land behind the Moors. The local population is opposed to it, this is an important walking space for locals and recent flooding shows the folly of building on what appears to be a flood plain. (Email 29)

Iffley Horse fields: an ancient meadow with many species including badger setts, said to meet requirements for a City Wildlife Site (Box 4)

Leverhulme Centre for Nature Recovery

<div style="border:2px solid; background:#7CFC00; padding:10px">

Box 4: Friends of the Fields Iffley (Email 28, edited to shorten)

The draft LNRS map should include the Horse Fields ancient meadow in Iffley Village, as it meets multiple priorities in the draft strategy as an existing area of particular importance to biodiversity:

- the high biodiversity here (including 636 invertebrate species, barbastelle bats, cuckoo, tawny owl, thrush, linnet and extensive badger sett) meets Oxford City Wildlife Site requirements

- a mosaic of habitats (meadow, woodland, wet woodland and ditch, hedgerow and scrub) here meet several priority habitat categories which links to the blue green corridor and SSSI on the opposite bank

- located near 3 of Oxford's wildlife corridors (Priority 37: Priority Measure 79)

There are multiple wider benefits of this meadow:

- sense of place and aesthetic value in the historic conservation area in Iffley Village, this is the last ancient meadow on Meadow Lane (all the other remaining green spaces here are capped landfill)

- health, wellbeing, leisure, community: the location along the Principal Quiet Route for Active Travel and the circular walking route via Iffley Lock brings wider benefits to so many people's everyday life (Priority P37)

- flood protection, carbon storage, urban cooling, education: there is support from the 5 local schools (3 primary, 1 secondary, 1 special needs school) within 5 - 15 min walking distance for as a dedicated site for outdoor education. A third of the 1700 students from these schools are known to be disadvantaged (receiving pupil premium or having special needs) and benefit hugely from nature study, restoration and nature connection.

Although allocated on the Oxford Local Plan, the biodiversity and quiet route usage was never assessed. BBOWT Buglife and the EA have objected to the 1st round planning application along with 1000 + residents and visitors. Please include the Horse Fields in the LNRS. Thank you.

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Grandpont Nature Reserve (threatened by new bridge to Osney Mead)

- This mature woodland is used by about 1000 people a day for walking to work school and for recreation. It is one of the most important greenfield areas for residents of several areas. It is threatened by a superfluous new bridge, which will carve up this one remaining place where urban residents walk in woodland. (Map 1328)

- These huge old willow trees are like a cathedral. When I'm returning home to Iffley from town, I feel myself physically relaxing when i get here. None should be cut down for the sake of a new cycle track. (Map 1801)

- Proposing a vast concrete and glass bridge across the Grandpont Nature contradicts the values of nature lovers and is deeply unpopular. Already

many trees have been axed to make way for the proposed structure (Survey 101)

This part of Grandpont nature reserve is under threat from council's proposals for an unnecessary bridge. The area supports a wide variety of plant and animal species, including a diverse range of birds. We need to preserve this biodiversity. (Map 1174)

The area west of Eynsham

Increase PM09 around west of Eynsham instead of house building where there is no infrastructure to support additional houses, and paving over the countryside goes against everything within these documents. (Survey 34)

Stratfield Brake, scheduled for a football stadium. This attracted not only comments from people wishing to protect biodiversity on the site, but also from people supporting the stadium. In this location there were also a handful of comments and map pins which misused the consultation (using offensive language or aiming to identify local people's names and addresses). These comments are in the full dataset (without people's names, addresses, or offensive language, all of which have been redacted).

- Please do not build a football stadium on the triangle. The local population voted more than 2 to 1 against this. It is bad for nature/biodiversity and would mean the loss of one of the few non-built-up areas between Oxford and Kidlington. (Email 29)

- Stratfield Brake 'Long Established Woodland' is rich with deadwood. Development adjacent to eastern section will remove habitat used by adults of deadwood insect species for feeding (nectar/pollen), and fed upon by birds, resulting in biodiversity decline. Development threatens fungal species by water table disruption - impermeable area planned is slightly higher than floor of wood, and proposed drainage of run-off requires maintenance in perpetuity. (Map 1697)

- Ideal location for a stadium being on 'contaminated scrubland' - ideal for the wellbeing of countless county residents (Map 1646)

- A rather unloved and forgotten bit of land that has previously been contaminated. Only been good for a few willows that are cut down on a yearly basis. There would be a massive biodiversity net gain from the stadium going here and keeping OUFC's rich heritage alive. (Map 1736)

Sydlings Copse SSSI, at risk of disturbance from the new Bayswater Brook development:

- Had this LNRS been in place, would greater weight have been given to protecting Sydlings Copse? It is right up against the newly approved Bayswater Brook development despite its irreplaceable and fragile nature (Survey 86).

- Pressure from housing developments in this area could conflict with the ambitions of the LNRS. (Map 181)

The wildlife corridor south of Shotover Park

- The wildlife corridor south from Shotover/Brasenose woods joining the Thame catchment area/Baldon Brook and the Cowley substation LWS proceeds via the north of Garsington and is under threat from the drastic narrowing of the Green Belt there. Focus needs to be on ensuring that new housing developments mitigate their impact on such wildlife corridors to the fullest extent possible. (Survey 56)

Hinksey Meadow and Monks Causeway (threatened by flood alleviation channel)

- This area of irreplaceable MG4A species rich wildflower flood meadow, some of Oxfordshire's rarest and most precious biodiversity is under threat from the low cost/benefit channel the EA plan to dig through it (Map 1327)

- Preservation of Hinksey Meadow should be a priority. We have lost 97% of flower meadows since 1945. Hinksey Meadow is one of the few remaining, still managed as it has been for centuries: pasture for cows and horses, mown once a year. This has resulted in an incredible variety of plant life, including some rare species. The meadow and Seacourt Stream form an ecosystem rarely found elsewhere. The trees bordering the stream are home to birds, bats, insects and aquatic mammals. Removing trees or building on the grassland would risk the destruction of the whole ecosystem, and loss of a vital part of Oxfordshire's natural life. The Meadow is much loved by those living in the area and others who discover this thriving piece of living history. (Email 38)

- Hinksey Scheme not OFAS: it is cheaper, quicker, less intrusive, better protects habitats. River braiding/wetlands please (Map 196)

- A well-loved area of Oxford where EA channel would destroy 13 acres of the irreplaceable plant community of Hinksey Meadow, an estimated 4,000 mature trees and miles of hedgerows in the West Oxford wildlife corridor. (Map 1271)

- I wish to highlight the importance of the Monk's Causeway path and adjoining fields between North Hinksey and Osney Mead. This extraordinary area is under threat of destruction from the proposed flood alleviation scheme. The ancient pathway, which regularly floods, is a delightful, shaded walk between the industrial estate and the village. Very old willows dominate the walkway, in places home to epiphytic mosses, lichens & polypody ferns. Tree roots snake over the path giving a feeling of timeless nature. There is at least one specimen of the very rare Malus sylvestris in its true form (not a hybrid) and numerous wild roses. The scent from these trees and shrubs along the causeway in Spring is a sensory pleasure. Local wildlife includes grass snakes, bats and kingfishers, and the dense cover of bushes and trees are a magnet for thrushes which sing beautifully in the dusk. The adjoining fields are covered in a haze of buttercups in summer. I have taken many visitors to

see the beauty of this magical place and all are overwhelmed by the surprising proximity to urban, industrial Oxford. It grieves me that the Environment Agency plan for the flood alleviation scheme would obliterate this extraordinary and beautiful ancient pathway. (Email 32)

Gavray Meadows in Bicester, a Local Wildlife Site and green urban corridor with rare species including hairstreak butterflies, Devil's Bit Scabious and Whitethroats. Ongoing efforts to save it from housing development. (Map 449, 491, 492, 493, 1588)

- The eastern portion of Gavray Meadows LWS remains under threat whilst the owners continue to try and promote it for development. It should be secured as part of the E-W corridor of GI running alongside the railway line and incorporating Gavray Meadows and Wretchwick Green development sites. This central area is the missing piece of that strategic jigsaw. (Map 492)

Abingdon reservoir: hundreds of veteran trees have not been included in the official surveys (Survey 74)

North Oxford Golf Club, scheduled for housing development.

- North Oxford Golf Club is 117 years old. It has 3,000 trees and mature hedgerow. There are at least two mature rabbit warrens, signs of badgers and deer, and a wide variety of nesting birds such as red kites and buzzards. It makes a huge contribution to the health and wellbeing of people including mental health. It is pure vandalism that such a beautiful place is to be given over to University development. (Email 21)

Road verges with rare Pyramidal orchids, threatened by road widening on the A4130 and with **Knapweed Broomrape**, threatened by housing development in Benson (Map 489, 490)

- The verges of the A4130 here support potentially high quality grassland that is under threat from the current road widening/bus lane project. At the top of the cutting on the south side of the road, just west of the Trenchard Avenue exit, is an unusually fine stand of Pyramidal orchid including many of the scarce white morph. (Map 384)

The comment below also highlights that even where there are no current plans for development, the fear of future development can cause stress and worry.

> This place is so important to me. It has been instrumental in maintaining positive mental health for almost 30 years, I constantly worry it will be "developed" on. (Map 1541, near Blackbird Leys)

There were also a few comments asking for areas to be removed from the LNRS map because they are allocated for development (e.g. Milton Park, Map 272). Thames Water requested a meeting to discuss changing the boundaries of the mapped measures to fit their planning needs for Biodiversity Net Gain around the planned new reservoir near Abingdon (Survey 107). A real estate company

asked for areas allocated for development south of Oxford to be removed from the LNRS map (Map 737, 738, 739).

- Areas identified for Nature Recovery should be referenced against local plan allocations. This area is within a strategic allocation for development which will carry out ecological survey works to identify important components of the site and will include a biodiversity strategy for net gain. It isn't considered appropriate for the LNRS to specify what the appropriate solution for this area is. The LNRS should concentrate on identifying the most valuable existing habitats. (Map 737-739)

4.5.4 Other land use conflicts

Other land use conflicts included the impacts of farming and recreation on nature, and the potential loss of farmland due to some nature recovery actions. Some responses noted the need to balance multiple needs, and the related need for a land use strategy for Oxfordshire.

Specific issues included the identification of inappropriate measures on existing sports fields, allotments and cemeteries (covered separately in Appendix 3 Section 4.3.2). There were also examples of development conflicting with both nature and recreation, such as the proposed housing development on a golf course (Email 21). One comment noted potential conflicts with historic land scape character (Survey 120, see below). There was some disagreement, for example over the issue of game shooting, with the British Association for Shooting and Conservation arguing that shooting has a beneficial role in nature recovery (Survey 80, see below), while others pointed to adverse impacts (Survey 86). However, some opportunities for synergies were also noted.

Typical comments are shown below. (Note that many of the comments categorised as land use conflict are disagreements with a mapped potential measure based on the existing habitat; these are covered in Appendix 3 Section 4.3.1.)

General comments on balancing priorities

- The description of the strategy areas should highlight that parts of the county are heavily constrained (particularly in more urban areas like Oxford city) and need to accommodate a range of land uses to support sustainable development. This would ensure the opportunities in the LNRS are framed alongside the various challenges to balancing land needs across the county and help ensure that expectations for future enhancements are managed appropriately. The document should acknowledge that other land uses do not have to come at a cost to biodiversity or the aspirations of the LNRS, particularly where strong policies are in place to support multiple outcomes, including mitigating impacts and delivering gains for the environment. (Email 12, Oxford City Council)
- It would be helpful to have some discussion of how to balance conflicting benefits e.g. biodiversity, safety, visual amenity, food production,

infrastructure, public access, public good, along with project programme and cost (key in terms of climate change mitigation). Examples of this is deadwood and the use of monoliths. Clearing a lake for recreation. Building solar farms. Many of these decisions are about balancing conflicting benefits. (Survey 43)

- It is not clear, either from this document or from the interactive map, what approach will be used to identify priorities for nature recovery and how any land use conflicts between different types of habitat, development, agriculture etc, will be resolved. The proposed Land Use Framework for England is of potential value in this respect. (Survey 82)

- We shall need a land use strategy for Oxfordshire. The interactions between different land uses (development, industry, nature, farming, renewables) must be clearly understood. It is the job of the LNRS to make the case for nature. (Survey 86)

- Needs to be more emphasis on stopping the things we do to damage nature - river pollution, invasive animals and plants, badger culling, cutting roadside verges before litter is collected (sending small particles into soil and watercourses) (Survey 117)

Food and farming

- The strategy needs to show how it takes account of wider benefits and trade-offs, including for food production. (Survey 91)

- The clear relationship between damage to nature and climate from excessive livestock farming should be stated. We could feed ourselves comfortably here if we reduced our meat and dairy intake. Mention must be made of chemical-free organic farming. Pesticides, along with land-use change, are formidable destroyers of nature. (Survey 100)

- It seems a real weakness that 'Government has not yet confirmed how the LNRS would interact with agri-environment schemes'. With over 70% of the land in the county farmed, it is to farmland we should be looking for the greatest gains. Yet, somehow, the LNRS appears to sit uncomfortably alongside the farmed landscape rather than encompassing it; it seems to view farmland as not really being what the Strategy covers: that there is 'biodiversity habitats' (yes, LNRS territory) and (p.42) 'farmland / wider environment' (no, not LNRS territory). (Survey 44)

- Under wider benefits there is no consideration of trade-offs. Plant a wood on an arable field and cultivated food production will go down (Survey 65)

- Mid Windrush Land and Nature Group sent a revised map avoiding crop fields that have 'limited potential for Nature Recovery' and focusing on small valley floors (Email 34, see Appendix 3 Section 4.1.2).

- There should be an overarching principle on agriculture - this could include the need for Government to support farmers in nature-friendly land management, and address the issues of food security, climate resilience,

organic farming, and reducing meat and dairy consumption to release land for nature. (Survey 86)

Recreation

- When siting nature close to people, need to consider the risks of people and pets trampling small areas of biodiversity with high density use, and the effects of urban lighting on many species (including pollinators). (Email 26)

- Willow trees here give essential bird and pollinator habitat plus protection from wind and rain for footballers and pitch. New path should accommodate football pitches and preserve trees for mutual benefit. (Map 981)

- This site is currently used as a walking route by locals and so PM38 (wet woodland) may not meet the requirements for the site. (Map 765)

- There appears to be little effort or consideration put into reclaiming various recreation grounds and claw back/ convert some of the giant expanses of non-native grass in these areas to support biodiversity and promote better flood prevention. (Survey 103)

Shooting

- We strongly suggest you provide some wording to make it clear that sustainable shooting is an essential and welcome ally in delivery of the LNRS. For example, across the document you recognise the need for woodland and hedgerow creation and management, wetland creation and so forth. Shooting is known to be a driver for these interventions. BASC Natural Capital Accounts mentioned earlier in our response revealed that in England, land used for pheasant shooting has 15% woodland cover compared with under 11% for land without it. Shooting provides species management that is needed for LNRS delivery. Deer and grey squirrel management is essential for woodland health and extension, be that planted or natural regeneration. Your current omission of predator management for breeding wader conservation is an area where shooting is an essential ally for effective, landscape scale management of species like fox and carrion crow, which cause known issues for breeding waders and farmland birds. (Survey 80, British Association for Shooting and Conservation)

- No mention is made of the release of game-birds in Oxfordshire. Managing land for game is damaging to nature, as specified for adders and lizards in the Species Priorities; although of course it also includes the killing of birds of prey. We need to state clearly that nature cannot thrive whilst large Shoots exist. (Survey 86)

Landscape

- In my area the natural state of the landscape is open countryside (NCA108 - Upper Clay Vales). However, the draft LNRS map has a large area of PM

35 between two small areas of ancient woodland over 1 km apart. This represents change of land use, and change of landscape in a fashion that goes against the historical natural status of the land which for centuries has been open countryside and grazed grass meadows. It also conflicts with the stated aims of the LNRS strategy for the Upper Clay Vales: to improve meadows and grazing fields and protect remaining sites of species rich hay meadows or MG4 Grassland. The Strategy seems to be proposing land use change without any proper location specific surveys, or environmental impact assessments and without regard to historical context. This has huge risks if there are threatened species in these locations, or if the area would be suitable for example for reverting from arable to pasture in order to attract threatened open countryside species back to the area. There is also the threat of destroying a local ecosystem which needs each individual part for the whole to function. In the case of grassland, the interrelations between grazing livestock, local flora, insect life, dung beetles, fauna and farmland birds. (Survey 120)

4.6   Water quality

There were 29 comments referencing water quality. Most of these emphasised the importance of improving water quality in order to deliver nature recovery. A few noted particular issues for specific locations, habitats or species, and some gave suggestions on how to improve water quality through partnership working and/or nature-based solutions such as constructed wetlands, SuDS or agro-ecology.

Importance of including water quality in the LNRS

- The DSA mentions pollution as a risk to wildlife on pages 99 and 103 but states that the LNRS "cannot change the levels of pollution entering the environment". The LNRS can and must list pollution under a new section on principles and threats, and report on those areas most at risk, so that decision-makers understand the damage from pollution. (Survey 86).

- You need an action to "improve river water quality in Oxfordshire". River health is made up of the three-legged stool of water quality, water quantity and habitat. At the moment, all your freshwater actions focus on improving habitat. However, the main reason Oxfordshire's rivers fail to be in good ecological health is not due to lack of habitat, or over abstraction of water, but due to poor water quality. For instance, in the Ock catchment, not a single watercourse is considered to be in good ecological health. In the Cherwell and Ray catchment only 1 out of 35 watercourses are considered to be in good ecological health. I can speak to the Cherwell & Ray catchment as this is a catchment we (Thames21) co-host, along with BBOWT. The main reason for failure is pollution from wastewater (44%), followed by agriculture (31%). Physical modifications account for 13% of failures.
The action you need to include should be something like "improve river

water quality", through:

1. timely and appropriate upgrades to the sewerage network and sewage treatment,

2. nature based solutions like constructed wetlands,

3. and through working in catchment partnerships and with authorities such as Natural England and the Environment Agency to reduce surface water pollution from agricultural runoff.

Without good water quality, you will not get biodiversity recovery in rivers, it's as simple as that. (Survey 6)

- I think the LNRS should not just set strategic priority areas but also stop pollution of the watercourses and rivers, and this requires stopping new development without dedicated additional sewage treatment. (Survey 123)

Specific issues for particular locations or species

- Arable is bad news in any of our rare spring fen catchments because of high polluting nitrate leaching out of soil into the dependent spring fen which should be an extremely low nitrate ecosystem (as well as insecticides, fungicides and herbicides). Also, development always, after years, brings detrimental groundwater pollution by nitrate from sewer system or drinking water infrastructure leakage. (Email 18)

- Some of the desiderata simply cannot be achieved without more politicized action, for example, maintaining water quality for a valley fen such as Lye Valley while allowing contamination of that water through development and inadequate management of run-off (Survey 19)

- The water quality and evidence of any kind of life in this stretch of water has declined drastically in the past 18 months. (Map 32)

- Chalk stream at risk from wastewater overflow (Map 855)

Opportunities to improve water quality

- P19 Rivers: I agree with the measures listed to improve the physical condition of rivers, however I believe that without better water quality in our rivers, and sufficient quantity at times of low flow, these measures will not deliver the desired increase in biodiversity. There should be an action to work with planning authorities, landowners and the water company (Thames Water) to increase the number of waterbodies in good ecological status via improving water quality. This may be through targeted, evidence-based upgrades to sewage treatment works, nature-based solutions like constructed wetlands, or encouraging landowners to adopt water friendly farming practises which minimise run-off. (Survey 28)

- PM40: It would be helpful to highlight measures to improve actual water quality: the Cherwell & Ray Catchment Partnership is ideally placed to lead on such matters. (Survey 44)

- Bradfords Brook/Mill Brook needs a whole catchment partnership approach to tackle pollution, flooding and biodiversity recovery (Map 1291)

- Could create an integrated constructed wetland in this field to clean wastewater from Wantage STW, which is discharging raw sewage more and more frequently at this location. (Map 680)

- This is the proposed Enstone Nature Reserve. It would run alongside the existing Enstone Meadow (Grid Ref SP379245) to make one long stretch of enhanced wetlands and freshwater. Relevant priority is 'Create more, new (or restored) high quality freshwater habitats in Oxfordshire including ponds, lakes, reedbeds, and marsh. By managing this area for nature, there is the opportunity to increase biodiversity significantly and to improve water quality. It would be an amenity for Enstone/local school (Map 1224)

4.7 Delivery, funding and engagement

There were several comments expressing concern about how the nature recovery actions proposed by the LNRS would be delivered in practice. Comments included requests to make funding available and to engage local communities and other stakeholders. There were also a few comments expressing lack of confidence in the LNRS concept, scope, or process.

4.7.1 Lack of confidence in the LNRS concept

22 comments expressed concern about the scope of the LNRS or the usefulness of the draft documents. Most of these wanted more ambitious and far-reaching action, and/or a clearer plan for implementation. Some examples are given below.

- We are aware of the somewhat limited scope for LNRS's outlined by DEFRA. It would be useful to summarise common themes from the consultation that couldn't be prioritised but are nonetheless important to broader strategic goals. (Survey 72)

- I remain concerned about institutional inertia. Radical, effective action is required not reams of reports. (Survey 85)

- It seems to be all about vague aims instead of actual actions. Why? (Survey 11)

- This is well-intentioned but unactionable unless Oxford has the data and resources to monitor and enforce the strategy – does it? (Survey 119)

- I have read the documents and very much appreciate all the hard work that has gone into them, but "tinkering" is not going to recover or even save Nature. These documents simply do not address the fundamental issue that Nature needs large joined up landscapes and diverse habitats in which to thrive and recover. Nature cannot thrive in pockets, albeit a lot of them. Nature definitely cannot thrive or even survive in intensively farmed and semi intensively farmed areas. This plan needs to be much more

strategic in putting forward that England is at a point where National Nature Reserves need to be established alongside wetland being re-established and protected. Currently wildlife and biodiversity is declining even in National Parks and National Landscapes so protection which essentially might just preserve the status quo simply does not deliver Nature recovery. I consider that the proposals in the LNRS (phase 3) may just protect Nature in its current state but will not recover Nature to the extent that is/should be aimed for. (Email 22)

- I realise you're following a process which has been laid down by central govt but this doesn't to me add up to a strategy. What we have is a list of things which need to be done - by someone. But nothing is mandatory, no one is actually tasked with doing anything, and other ambitions of government can override priorities in this document and render them unachievable. (Survey 37)

4.7.2 Implementation and funding

53 comments addressed the question of how the LNRS would be delivered, funded, monitored and evaluated (we address monitoring in Section 4.8). These comments generally expressed concern over lack of detail, suggested changes to the documents to address this, and/or suggested partnerships, funding and skill development options that could help deliver the LNRS. Examples are given below.

- What appears to be missing is a strategy for implementation. I appreciate that this depends on funding and national government priorities. But there seems to be no document saying how money is to be obtained, what the priorities will be if limited cash available. Who is going to take forward specific work, where that is to be done first, together with time scales. (Survey 102)

Working with farmers, landowners, planners and other stakeholders

- How are we going to implement this, how will we get landowners to buy in, developers and planners to acknowledge the biodiversity of a site and the threat to potential connectivity? A follow on is needed on 'delivery'. (Survey 63)

- Farmers and landowners need to be able to see, at first glance, why the LNRS is important to them and what it has to offer them. Oxfordshire's LNRS should speak clearly to the priorities that farmers and landowners hold, such as increasing resilience of food production. There should be a guidance document for farmers with clear signposting to the farmed environment section of the Statement of Biodiversity Priorities and Measures. Further, the Measures should be mapped against agri-environment and other funding options, so farmers can see what money is available to support them to take certain LNRS Measures. This should be displayed in the long form document, the map, and in a separate farm advice document. (Email 25)

- As well as what the priorities are, a strategy should discuss how to deliver them. I find myself asking why a farmer would ever look at any of this. Perhaps some farmer clusters might engage in relation to their landscape scale planning, but most farmers are not in clusters and the LNRS is simply not going to be on their radar. The farming industry is struggling badly: this year alone 30% of crops failed due to the wet conditions. So those farmers who do participate in ELMS will just do what will suit their own land to keep their business solvent. To connect with farmers better, could links be made through local communities? Farmers generally like bottom-up initiatives, as they feel they might have some say in how it all happens. Perhaps examples such as the Charlbury or Windrush Land and Nature Groups (see Marcus Simmons at CAG) might illustrate how local stakeholders can work together towards a common purpose. Building relationships and trust takes time, but this might better achieve outcomes which align with the LNRS aims and objectives. Does the Oxfordshire LNRS need a section on delivery showing examples of what actually works? We are lucky to have pioneering farmers and landowners in Oxfordshire so that should be possible. Would Defra actually reject it if it did? Why not challenge them? In my experience showing what can be done is by far the best way of helping stakeholders to imagine how they might participate in their patch. The other point about this approach is that the reality is that strategies come and go (along with funding), and as local communities are invested in their local environment, they bring long term interest and momentum. How can the County Council enable this better - now there's a question which deserves proper attention. (Survey 90)

- The LNRS is a large-scale undertaking covering the whole County and may not include more localised information or priorities. The City Council may have additional initiatives and opportunities as identified in its own strategies - for example, our Biodiversity strategy or Local Plan - which it may wish to pursue in future. Where relevant, we will seek to identify opportunities where these can align with the LNRS priorities. Whilst the LNRS outlines and defines priorities for many areas of nature and biodiversity in Oxfordshire, we believe it is crucial that ways to actually deliver this strategy are identified. It is important that the LNRS team, alongside supporting authorities and the OLNP, work with stakeholders to develop a strategy to deliver. We see the Planning and Biodiversity Net Gain (BNG) aspects of the plan as of particular relevance to Oxford City Council, as we have a role in delivering this as Local Planning Authority (LPA). We stress, however, that it is crucial that clear guidance is provided as to how the LPA should 'have regard' to the LNRS through the planning process. (Email 12, Oxford City Council)

- I would like to see more incentive for individual households to become part of this larger strategy rather than peripheral to it (Survey 103)

Funding

There was some disagreement over funding from Biodiversity Net Gain, with some calls to discuss it more clearly but also some caution about the danger of BNG facilitating more habitat loss due to development.

- LNRS has the potential to be a tool to drive significant investment into our area. However, currently there is no high-level sales pitch. The LNRS should answer 'why should I invest in Oxfordshire, what makes it different, what are they trying to do there that is unique or stands out from other locations, what goals are they trying to meet?' We need a narrative vision (see full email for suggestion) and short guidance documents for planners, communities, farmers and investors (which OLNP can help with). (Email 25, OLNP)

- Will the funding mechanism encourage collaborative working? Will funding be sustained over the timescales necessary to achieve results? (Survey 37)

- Needs more mention of Biodiversity Net Gain. (Email 11, BBOWT)

- One of the primary purposes for LNRS is to guide the provision of funds from BNG into the most appropriate areas. The documents and maps should make it clear what habitats, management and areas are included in the high strategic significance level of the metric. To reinforce this link, habitat terms in the documents should mirror those in UK Hab and if possible NVC. The LNRS should incentivise locating habitat banks next to priority habitat, the creation of complimentary habitats in those locations and encourage the creation of linkages to other habitats. (Survey 35, The Environment Bank, further suggestions in full comment)

- How will you address the funding gap? Biodiversity Net Gain is a slippery and potentially dangerous concept, as likely to enable development as to protect nature from it. It runs the risk of enabling continuing destruction, by pretending that, for instance, we really do have 30 or so years in which we can reliably replace mature trees. You need to monitor this with enough funding to take developers to court if they dishonour BNG promises. We see all the time that developers simply cannot be entrusted with this, they have no motivation to do it properly and plenty of motives not to. (Email 26)

- Evidence from places which have sought large-scale nature reserves (such as the Great Fen Project, Avalon Marshes, Wicken Fen Vision, Purbeck Heaths super nature reserve) suggests that it is the complete ambitious package that attracts public support, attracts the interest and support of funders, and a partnership wide enough to deliver it. And to get that complete package it is important to consider how such an area can deliver for people as well as wildlife, in terms of people being able to experience the multiple benefits of visiting a large wild place with a great diversity of wildlife, and/or learning about nature in a visitor centre or at an event or guided walk. (Email 11, BBOWT)

- We are concerned regarding the absence of potential measures on SSSIs. Whilst we understand that agri-environment funding is available on SSSIs, this only covers some works on SSSIs. It is important that managers of SSSIs are able to access other funds for other habitat creation and enhancement projects, and for species projects. If grant funders use the existence of mapped potential measures at a given location in the same way as the 1.15x BNG strategic significance potential measures multiplier then it could make it extremely hard for managers of SSSIs to carry out work to benefit SSSIs. (Email 11, BBOWT)

Skills and employment

- Some social value considerations and wider environmental benefits will be relevant to the action planning phase where positive synergies can be built between strategic priorities. One example is the development of green skills and employment as part of an approach to sustainable stewardship of natural resources and inclusive and sustainable local economic policy. This presents a clear opportunity to align LNRS implementation with ongoing work by OxLEP and OIEP. (Email 5)

- Skill gaps and availability of specialists in relevant professions (ecologists, hydrologists, foresters, arboriculturists, etc) need to be outlined, including training to enable citizen-science or community input. (Survey 121, Tree Service, OCC)

4.7.3 Community involvement and local knowledge

140 comments were classified into the theme of community engagement and local knowledge, of which 97 were map pins, typically giving details of ongoing community activities. Comments covered the general need for more emphasis on community engagement in the LNRS documents, suggestions of specific ways to strengthen engagement, examples of existing community activities (many as map pins), and ideas for future opportunities.

The need for more emphasis on community engagement in the LNRS documents

- I would love there to be a section on engaging with people and different approaches and priorities for doing this. The more we can get everyone valuing and fighting for nature recovery, against all the challenges, the more impact we can have. (Survey 8)

- A section is needed outlining governance processes including how to make recovery a bottom-up and not just a top-down initiative. We need to see the expected role of parishes and land managers at the described locations; how farmers would be engaged, perhaps via local communities; and how relationships and trust might be built, using examples of successful collaborative working such as the Charlbury and Windrush Land and Nature Groups. (Survey 86).

- We would like to see the following Potential Measures added to a new Priority on equitable public engagement:
  - Ensure accessible communication about nature recovery opportunities, sources of funding, and other forms of support, using a range of communication media.
  - Encourage cross sectoral participation in nature recovery through strategic initiatives such as the OLNP People and Nature Subgroup, the National Education Nature Park, and Wild Oxfordshire's Nature Positive Business Network. (Survey 72, Oxford Public Health team)

- We must ensure that young people are receiving compulsory education in the care of, and importance of nature in general, and that local community groups are involved as fully as possible in local decisions (Survey 42)

- There is one very important pressure missing, and that is Public Engagement (or the lack thereof). The UK is a signatory to the UN Convention on Biological Diversity. We have a treaty obligation to engage the public on this topic. Without it, there will be powerful push back on any policies designed to reverse biodiversity decline. If the population at large does not know about biodiversity, how can they care about it? In their view, policies will be misunderstood and resented. Research shows that just talking about the science is not enough, it is about trusted messengers and speaking to people's values. With climate change communication, the experts are Climate Outreach. Looking at the illustration from the LNRS workshops, there is one action that should be written much larger: "Engage Everyone". (Survey 110)

- Include more about partner work - with districts, farmers, NFU, EA, C&RT, BBOWT, federations of allotments, "friends of" groups, other community groups, citizen science projects, schools. (Survey 51)

- Provide more detail on the role of people and organisations across Oxfordshire in the LNRS, mentioning UK government, Parish Councils, charities, community groups, private businesses, individuals in their own gardens if they have them, or volunteers.
  (Email 11, BBOWT)

Suggestions on improving the role of community engagement in the LNRS

- The mapping and studies are based on ecological science, and lack apparent integration of social science considerations and the co-production of local knowledge, values, needs and preferences. It is urgent that a more holistic approach to government support for nature recovery be adopted, that better incorporates local knowledge, values and priorities. The current approach, where decisions about what to prioritize are made in isolation by natural scientists and mapped onto local areas while the people living in those areas are mostly unaware that this is happening, is highly problematic. More engagement with social scientists

and other experts in participatory process could help rethink and improve the overall strategy. (Survey 65)

- Diverse communities and social groups should be inspired to take action. However, the length of the strategy and level of detail provided is a potential barrier to engagement. It takes a specialist with lots of time to drill into the detail to find pertinent information. We suggest the LNRS could incorporate some of the guidance that Wild Oxfordshire has produced on how communities and individuals can use the LNRS. (Email 25, OLNP)

- It would be of huge help for the LNRS to provide guidance on how local groups can work with local landowners. All the priorities, and the overall strategy, are fine but if there are not means by which local landowners - often simply speculative investors - can be directed to improving their own land or working with local groups to achieve change then it will be hard to make progress. (Survey 93)

- Consider creating local names for different parts of the county to give people more of a sense of ownership. (Email 11, BBOWT)

- We suggest that publication is accompanied by an outline of which demographic groups engaged with strategy development. This is useful for transparency, but also to understand where key gaps are for future action planning, such as targeted engagement and involvement in nature recovery (Survey 72)

- I feel the vision could be bolder: embracing species-led nature recovery, embracing human stewardship, and a more direct consideration of co-benefits of use. And maybe a wider commitment to experimentation: If the appetite for radical nature recovery is limited, then could we allocate land, such as poor agricultural land, to give communities space to experiment with different ways of nature recovery, piloting truly local solutions, and having fun in the process? (Survey 24)

Examples of existing or potential community action and engagement activities

- Oxfordshire Treescapes was a significant milestone that encouraged the development of community groups (Charlbury, Chadlington, the Wychwoods, Mid Windrush and others in West Oxon, alone), but is not mentioned. Indeed, the role of parish-based community groups is not given sufficient emphasis. It is likely that parish groups will be critical in developing a 'vision' for nature recovery, working with landowners/ land managers over the coming decades. (Survey 82)

- Earth Trust would like to see reference to the nature recovery work being undertaken at Earth Trust Farm, particularly with regards the creation of significant wetland habitat, grassland restoration, establishment of a hedgerow network and implementation of techniques to improve soil health and the biodiversity value of our arable operation. This is

particularly relevant in the context of LNRS with regards our objective to provide access, engagement and education to the landscape and the nature recovery work being undertaken within this to as large and diverse an audience as sustainable. (Email 35)

- The Wilderness owned by Faringdon Town Council. A group of volunteers struggling with resources to enable public access to this wildlife rich area in the centre of town. (Map 42)

- A 4.4 hectare field between the villages of Aston Tirrold/Upthorpe and Blewbury which has already been earmarked as part of the LNRS is part of our community Nature Recovery project. There are some key priority species including a healthy population of Common Lizard and Devil's-bit scabious. Thanks so much for this consultation to date and we hope we will be aligning our own strategy in accordance with yours. (Email 27, Pick's Field Project)

- Friends of Burgess Field have been busy planting new hedges, laying old ones, developing a species-rich wildflower meadow, and encouraging biodiversity in many small ways. Funding would help this well-organised group to do more. (Map 1246)

- Boundary brook nature reserve - the home of Oxford Urban Wildlife Group. An amazing place with a huge amount of biodiversity. Well managed by staff and volunteers. Provides mental wellbeing for local residents. Lots of sessions held here - Thursday weekly to help on tasks, Monthly singing in nature, hedge laying. moth identification, bat identification and a whole host more. Also used by neighbouring Larkrise School. (Map 1362)

- Here an active group of local people possess a long lease from the landowner to continue to restore habitats and there are planned projects for meadow creation, pond creation, woodland improvement, and waterways improvement. This area is an important part of a connectivity network that links e.g. Long Meadow LNR through to Iffley Meadows SSSI. (Map 182)

- I wonder if funds could be made available to specialist groups to work on individual species? For instance the Wychwood Flora Group, Friends of Lye Valley, and the Oxfordshire Flora Group have recently lost funding and might be very grateful for some support. (Email 8)

- Florence Park used by many members of the community. There is great scope here for learning, teaching and discovering about nature and biodiversity. A huge variety of trees some of which are quite rare. (Map 1361)

4.8   Targets, monitoring and evaluation

There were 13 comments on the need to set quantified targets for the LNRS, ideally SMART targets (specific, measurable, achievable, relevant and time-

bound). This could show the total area to be restored in Oxfordshire, possibly split by potential measure or broad habitat. Some asked for a clear reference to the 30x30 target (30% of land to be restored for nature by 2030) so that people could see how Oxfordshire's LNRS could play a part in delivering this important national and international commitment. A couple also asked whether the mapped measures should cover a larger area than the target, because actions would not be delivered across the whole area, especially as some of the map covered proposed development sites.

Finally, there were 18 comments on monitoring and evaluation of progress towards the targets. As well as general calls for a clear monitoring and evaluation plan, there were many references to monitoring activities that are already being carried out by community groups and volunteers, and some suggestions that more citizen science activities could play a role in future. Examples of typical comments are given below.

Targets for total areas to be restored

- I've seen no reference to the context of the 30x30 target which is both nationally and internationally endorsed. It does look from the map as if the three types of area highlighted in the map together may make up 30%, but it would be relevant to know what the actual percentage is. If it is 30%, the fact that some areas are potential development sites becomes relevant, as some of this land may be taken off the map by development. (Survey 70)

- There are no targets in any of these documents. After all we have international commitments to reserve 30% of our land by 2030 (Survey 74, Email 11).

- The strategy provides target areas but not actual targets. Please could we have SMART (specific, measurable, achievable, relevant, time-based) targets and metrics. in the Table in the Statement of Biodiversity Priorities, e.g. P1 - how much larger should the grassland habitats be? What measure of connectivity would one use? When should this be achieved? (Survey 86).

- The national format does not mandate (and arguably works against) the setting of specific ('SMART') targets for nature recovery. While a lot of the quantification can be left to implementation, we argue that setting a visionary objective (with a 'big picture' number in it) is the minimum. The fundamental question is how much land we want to see being better managed for nature (whether as dedicated space for nature, or multi-use such as nature-friendly farmland). An overall spatial target could be achieved by comparing the area of the nature recovery zone and core zone to the 14% already managed for nature, e.g. 'we want to double nature by 2030', or 'we aim to bring XXX thousand hectares into more nature-friendly management by 2030'. If we can disaggregate that into habitat-specific targets, so much the better. (Survey 112, Trust for Oxfordshire's Environment)

- I believe the map covers @35% of Oxfordshire. The problem is that not all of the priorities will be converted to action on the ground by 2030 (about the lifetime of this LNRS and the target for 30by30). If there is luck and a lot of hard work, we may hit 25% or so. If we want to have a chance of hitting 30%, then we should have at least 40% (or even better 45%) as priority mapped, especially as only 3.7% of Oxfordshire is Designated Sites and LWSs. (Survey 97)

- The priorities are not at all quantified - how much new woodland, new grassland, new heath. How much of the area shown as potential priority is expected to be converted into new habitat. It is difficult to see how the success of the strategy can be monitored without some comment on desired extent. (Survey 66)

- The vision could be quantified more - what is the measurable impact of each action on nature enhancement, community benefit, and more? Are we supporting the most impactful actions? (Survey 24)

Monitoring and evaluation

- There's no process for monitoring what actions actually are undertaken, by who, and what results are achieved. It's unclear how at the end of 10 years we'll know whether biodiversity has improved or not. How will success be measured? What are the key baselines and what change do we expect to see in Oxfordshire? Will the reason targets are achieved or missed be evaluated and lessons learned? (Survey 37)

- In general, the level of survey work for most species is variable across the county and heavily skewed towards Oxford as an academic centre. This is inevitably reflected in the data available. Where good records are available in the north end of the county - eg through the work of the Banbury Ornithological Society - the area proves to be much richer in biodiversity than perhaps has been assumed. The LNRS advocates survey work for some named species, yet for others this is not mentioned as an action: could the need be emphasised as an overarching aim? (Survey 44)

- I think it would be good to have some complementary work on being able to raise awareness of the priority species, encouraging general citizens to report sightings to help map the priority species. (Survey 17)

- It is not clear how progress would be evaluated (e.g. indicators, timescale, joining up various efforts). Changes in climate and conditions mean it is vitally important to be able to modify the LNRS based on local conditions and demands (Email 33)

- Little consideration is given to how species and structure are likely to need to change and facilitating this through new habitat creation; development of novel ecosystems etc. (Survey 66).

5. Comments on the individual draft LNRS documents and Local Habitat Map

This section provides a brief overview of comments on the three LNRS documents and the draft Local Habitat Map. Further details are in Appendix 3.

5.1 Comments on the draft Description of the Strategy Area

- This is a great document, from which I learnt a huge amount about the county and local area (Survey 64).
- The document is very well written and helpful. (Survey 76)

There were 57 comments suggesting changes to the Description of the Strategy Area. Although many praised the rich level of detail, several also flagged that it was very long and a bit repetitive. There were some specific suggestions for restructuring, and suggestions that a wider range of case studies could be included alongside the large section on Big Chalk.

Several comments asked for the Conservation Target Areas and previous Draft Nature Recovery Network to be explicitly referenced, and the role of the Oxfordshire Local Nature Partnership to be explained. There were also calls to include an overall vision, principles, and further detail on urban nature, wider benefits of nature, people and nature, the relation with planning policy, delivery methods, community engagement, targets, monitoring and evaluation. See Section 1 of Appendix 3 for more details.

5.2 Comments on the draft Statement of Biodiversity Priorities

We strongly welcome the priorities and potential measures listed in the Statement of Biodiversity Priorities. (Survey 84)

There was broad support for the content of the Statement of Biodiversity priorities, but also many suggestions for refinements, covering almost all the potential measures. These often reflected the overarching themes on strengthening the focus on urban areas, wider benefits, large areas and connectivity which were discussed in Section 4..

Some of these comments offer conflicting views. These included the use of non-native species (potential climate resilience vs supporting native fauna), and competing priorities for creation and management of woodland, scrub, grasslands, riparian buffers, floodplains and deadwood. See Section 6.3 below and Section 2 of Appendix 3 for more details.

5.3 Comments on the draft Species Priority List

> A very impressive list of species that require safeguards and specific conservation measures. If effective, these will benefit wildlife more widely. (Survey 85)

There was overall agreement that this is a very comprehensive list, but several comments queried the purpose of the Species Priority List and links with the Statement of Biodiversity Priorities (see also Section 4.1.5), and offered suggestions for improving readability and usability. These are summarised below. For detailed comments on species to add, remove or change, see Section 3 of Appendix 3.

- It is a fascinating document with much detail and interesting data. How will it be kept up to date? It will quickly become much less useful if not updated. (Survey 102)

- It could be helpful if the proposed actions for species could be referenced within the proposed measures of the Statement of Biodiversity Priorities, and/or the relevant codes for habitat actions referenced in the species list. Complementary species-specific actions could thus be nested within the broader proposed measures for habitats which would help stakeholders see what further actions they can take for species within their habitat proposals. (Email 14)

- An ecosystem needs the healthy co-existence of multiple species, not just a few "priorities", and the "priorities" may depend on a broad range of species for their existence that may not be identified as priorities. Targeting overall improvement and diversity of ecosystems is likely to improve the population of priority species as a byproduct (Survey 104)

- Could we see where these priority species are, so we can focus work in those areas? Though this could be difficult as some species records are very sensitive. (Survey 73)

- Rather than listing species alphabetically, could they be grouped into broad taxonomic categories: birds, mammals, reptiles, invertebrates, plants, fungi, lichen. (Survey 111)

- It would be helpful to include the 800 species that are also relevant (Survey 95)

There were also some specific suggestions for additions to the text.

- Could the need for more surveys be emphasised as an overarching aim for all species, not just some? (Survey 44). Could there be some further work to raise awareness of the priority species and encourage citizens to report sightings. (Survey 7)

- Mention dogs and the damage they do to ground nesting birds, small mammals and amphibians. Restrictions on dog walking is essential as asking owners to keep them on the lead is a waste of time. (Survey 4)

- Would it be possible to help emphasise where species can be helped in urban areas? Hedgehogs, swifts and bats are obvious examples, but perhaps a set of icons of some kind (e.g. indicating water, urban, meadow, woodland) would help people identify visually where there are species they might be able to help? (Survey 64)

- It is clear that the list has been produced following a rigorous process of data analysis and peer review. It would be useful to include a summary of this process in an appendix in the Species Priority List, as this could be viewed in isolation. (Email 35)

- Regarding future climate change, it would be useful to specify which UKCIP climate model projections this LNRS is based upon, and to state how often this LNRS will be up-dated or revised. (Survey 61)

5.4 Comments on the draft Local Habitat Map

The map was thought to be very useful, but there were several requests for how to make it more user-friendly, and many requests for adding areas or changing the mapped measures. This section summarises the key types of request, with much more detail in Section 4 of Appendix 3.

User friendliness. There were several suggestions for making the map more user-friendly and accurate. These included a request for catchier names for the map zones (core, recovery and wider landscape), better representation and visibility of the unmapped measures applicable to the wider landscape, an improved search function, and better user guidance,

Mapping potential measures to exact land parcels. The map was generated using hexagonal grid cells, meaning that it generally does not conform to land parcels such as field boundaries. Several responses requested that the map should use exact land parcel boundaries, especially to make it easier to calculate biodiversity net gain.

Smoothing the network. Several comments asked for a more coherent and better-connected network, with fewer isolated polygons.

Adding areas to the map. There were 354 comments related to adding PMs to the map where none currently exist, of which 336 were map pins. These included suggestions to add the following:

- The full extent of all the Conservation Target Areas

- Buffers around SSSIs and other designated sites, and potentially around priority habitats (200m was suggested)

- Joining up habitats to make a larger area in the Bernwood-Otmoor-Ray region

- More urban green space

- Areas with important habitats and species

- Areas where landowners, managers, community groups or other individuals wish to take action or have planned, ongoing or completed restoration work.

- Mapping some of the unmapped measures (including fens, reedbeds, scrub, habitat mosaics, verges, and wildlife corridors). There was strong concern that otherwise these unmapped PMs would be neglected by landowners and excluded from potential funding opportunities.

- Areas of high soil erosion

- Cherwell District Council District Wildlife Sites

Respondents may not have been aware that some of these areas were not included because they are Scheduled Monuments, SSSIs, or Grade 1 or 2 farmland. Measures are not currently mapped for Scheduled Monuments, though it was suggested that these areas could be included with appropriate PMs such as grassland restoration. Grade 1 and 2 farmland was not excluded but received a negative weighting in the map creation. However, it could be suitable for certain measures such as agroforestry, hedgerow creation or grassland restoration.

SSSIs are included within the LNRS as 'Areas of existing importance for biodiversity' but guidance from Defra states that measures should not be mapped there because they already have site management plans. However, several comments expressed concern over this and suggested it should be challenged (Email 11, Survey 105; see Section 4.7.2)

Removing areas. There were a few requests to remove specific areas from the mapping. These included requests from a developer, utility company and local planning authorities to not map biodiversity actions on sites where future development has been planned.

Mapping more appropriate measures. Many examples were noted where the LNRS suggests an option that was not felt to be appropriate, such as grassland restoration on an existing woodland, new grassland creation on an existing grassland, or wetland or woodland creation on sports fields, playgrounds, allotments, orchards, churchyards and cemeteries. In some cases, farmers preferred grassland measures rather than woodland creation measures. In other cases there were requests to map additional PMs in areas where there are existing PMs. The importance of always carrying out an ecological survey to check local habitats and species rather than purely relying on the LNRS map was stressed.

Expanding mapped PMs. One comment suggested that the PM for acid grassland and heathland could be expanded to include additional soil types, and another suggested including hydrological risk zones for fens.

Information about local habitats, species and activities. 197 comments, of which 148 were map pins, provided information on local species, habitats, and ongoing nature recovery actions, or simply expressed appreciation of particular

areas. Sometimes it was clear that the comment was asking for the area to be included in the LNRS map, or for potential measures on that site to be modified, but not always. Nevertheless, this represents a rich source of information and guidance to help inform future nature recovery activities..

6. Intervention types

About half of all comments were classified as referring to at least one specific intervention type, with habitat creation and habitat management / enhancement being the most common, and only a few mentions of rewilding (Figure 7). [Note that, as discussed in Section 3.4, the AI system did have difficulty distinguishing these themes, and as not all comments have been checked this breakdown is only indicative.]

Figure 7. Comments classified by intervention type
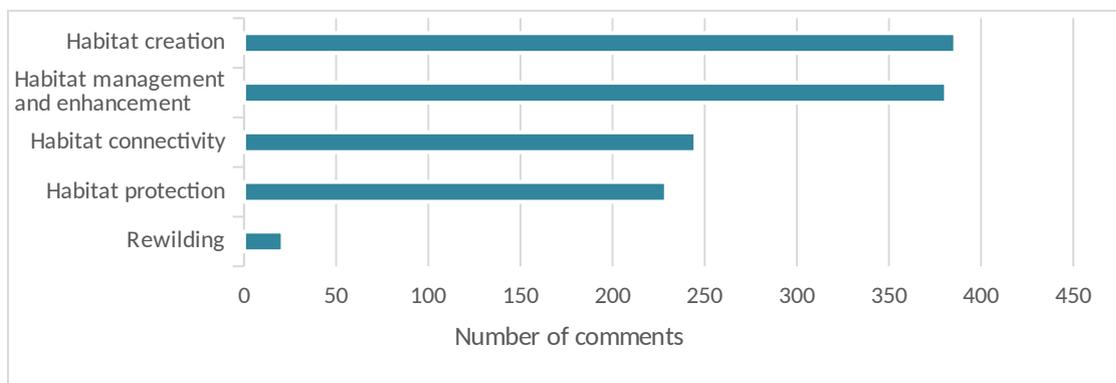
Key issues relevant to each intervention type are discussed below.

6.1   Habitat protection

Although the core 'areas of particular importance for biodiversity' are designated sites with differing degrees of protection, Defra specifies that the LNRS map of planned nature recovery activities may only include habitat creation or enhancement activities, not further habitat protection. At the time of the consultation, Defra had not provided guidance on whether inclusion of areas in the LNRS map would reduce the risk of habitat loss due to development. Nevertheless, it is clear from the responses that there was a significant hope and expectation that this would be the case. 231 comments were classified as referring to habitat protection, with many pointing out the critical importance of protecting existing habitats as well as creating new ones – not just from development, but also from intensive agriculture, pollution, recreational impacts and misguided conservation activities (some of these would be better classified as 'Disagree with mapped PM'). Section 4.5 (land use conflicts) lists many examples, and a few more are given below.

- The statement is missing the priority to protect as well as manage ancient meadows - to prevent the loss of this rare habitat. (Survey 69)
- Lots of lovely ancient trees along here need protecting. (Map 1154)

- House Martin colony needs protecting. Shilton Park is very lucky to have many House Martin nests each year. This is mainly due to the fact that a number of properties have wooden surrounds under their roof and gutters that allow the creation of nests. There is a real danger that as these get replaced by plastic soffits the House Martins will not nest. I have raised this point on many, many local housing developments and sadly no action is ever taken to encourage this red listed bird. (Map 1277)

- I also saw no specific reference to opportunities to increase the number of Roadside Nature Reserves. There is a thriving population of Dwarf elder (Sambucus edulus) on a Garsington roadside, a rare plant and one of only 20 or so populations in the county. It should be given some form of protection. (Survey 56)

6.2   Habitat creation

Although most of the 386 comments classified as habitat creation were simply references to ongoing, planned, completed or desired nature recovery activities, they also revealed some disagreements, with several respondents arguing that particular habitats should be favoured over others. This often involved the desire to protect, create or restore open grassland or fens seen as being in conflict with measures to create woodland (including wet woodland), scrub, hedgerows, reedbeds, ponds and mosaic habitats. Some examples are given below, and others were reported under the requests to remove or change specific mapped measures (Sections Error: Reference source not found and Error: Reference source not found) and changes to the LNRS documents.

- Chalk grassland is more important than wood pasture and parkland (although both are important). (Survey 97)

- This is species rich grassland and not suitable for ponds. (Map 109)

- Hedgerow planting would not be appropriate here. The grasslands flood annually and so many hedgerow species may not survive. Also woodland planting would not be appropriate as these grasslands support a diverse range of riparian grassland plants that would be lost. (Map 58)

- Seems odd to target the Otmoor RSPB reserve for wet woodland when they have put so much effort into creating open wetland habitats for wading birds etc. (Map 57)

- This stretch of bridleway and up to railway line is one of the densest glow-worm populations in the area, very important. Care should be taken that tree planting does not destroy this key habitat. (Map 861)

6.3   Habitat management and enhancement

As for habitat creation, most of the 381 comments classified as referring to habitat management simply mentioned ongoing or planned management activities, but the comments also revealed some conflicts or trade-offs on how habitats should be managed. The main issues revolved around woodland

management, grassland management, scrub, and non-native species. These conflicts are also reflected in the species priority list:

- Several of the required actions for different species conflict with each other. For example, some species require scrub, and others need it to be removed. Some require very short grass grazed by rabbits and some require rabbits to be controlled or excluded. Some aquatic and riparian species need shade and others need full sun. Therefore some thought is needed as to how to deal with these conflicts and decide which is the best option in each location. (Survey 91)

6.3.1 Woodland management

The comments revealed some tension between different approaches to woodland management. PM29 (woodland management) and PM32 (increasing diversity in ancient woodlands) include actions to create rides and glades to increase light penetration (including areas affected by disease), achieve wide, open areas with zones that achieve a variety of shade and ground cover, avoid overshading the ground flora, allow periodic disturbance along rides to support ground flora to set seeds (e.g. through controlled grazing) and periodically thin 'high forest' type woodlands. Similarly, PM34 includes re-coppicing formerly coppiced woodlands. However, this can involve a high degree of disturbance to sensitive woodlands and there was concern that intervention can be damaging in some circumstances and is not always appropriate:

- PM32 and PM34: There may be circumstances where woodland, and ancient species-rich woodland in particular, might be damaged by well-meaning but poorly informed 'traditional' management. Furthermore, there are likely to be circumstances where non-intervention management might be the most appropriate approach with regards the preservation of structure, dead/moribund wood/trees, epiphytes and ground (notably bryophyte) flora. Further clarification of 'where needed' and 'where appropriate' should therefore be included, especially with regards ecological survey/data and depth of understanding of the requirements of the existing flora and specialist fauna (notably invertebrates). (Email 35)

Another comment suggested that certain species were being favoured:

- The policies you outline are great for increasing woodland for birds and bats but they do little for rare flowers and their accompanying rare invertebrates. (Survey 49)

There were also some comments regarding the practical feasibility of some actions, e.g.:

- Comments from The Tree Service (Email 17)
    - o Could re-wetting woodlands by blocking drainage channels increase flood risk?
    - o It might be challenging to retain dense scrub and deadwood within coppices

- o It might be difficult to retain stumps of felled ash trees if restocking is required.

- o Suggested changing 'do not remove or burn deadwood' to 'try to avoid removing deadwood, taking into account public safety if the site is open access'.

- PM 34 Large scale coppice is proposed but (a) unlikely to be practical - it has not been for the last 40 years; (b) recoppicing does not always have the same effects now as in the past. (Survey 66)

6.3.2 Grasslands and verges

There were several comments about grassland management, especially around the timing of cutting and the need to remove cuttings from verges. Early cutting may be better for specialist meadow plants but can conflict with the needs of some invertebrate species. The Floodplain Meadow Partnership proposed adding their own guidance, but also removing guidance from Buglife that has more emphasis on invertebrate needs.

- For PM56 - Remove Magnificent Meadows reference as this is Plantlife and also Buglife and instead point to Floodplain Meadow Partnership for advice. (Survey 69)

For roadside verges (PM12), there were comments on the need to remove cuttings as well as cutting later and less often. However, although there was appreciation for more relaxed cutting regimes there was also one objection, highlighting the general problem with public acceptability of messier habitats.

- It is no good cutting verges if you leave the grass in situ. Rotted grass fertilizes the ground, encouraging rank grass, not flowers. It smothers little flower seedlings and prevents growth. YOU HAVE TO CUT AND COLLECT on road verges. (Survey 49)

- Are roadside verges in the countryside as well as in urban areas likely to be left to overgrow as they were this year? As well as giving the county an unkempt and unpleasant look they make driving dangerous as sight lines are obscured by long grass and tall growing weeds, road signs are obscured and village pathways have been restricted because of banks of stingy nettles and suchlike, making it very risky for mobility scooter users and pedestrians, especially children. (Survey 48)

- I very much agree with what is set out in the documents. It contains opportunities to pressurise local and town/parish councils to do more with the green areas under their control, e.g. making road verges more biodiverse, reviewing mowing frequency and not cutting hedges on an annual basis. A change of culture is required to be less concerned about tidiness, but I know that is difficult. (Survey 52)

- This area has recently left to become long grass, which is really nice. There are good old trees and dead wood here too. I'd like to see this retained as it is. (Map 1156)

6.3.3 Scrub and habitat mosaics

The LNRS includes specific measures that recognise the value of scrub and habitat mosaics for wildlife. This was welcomed by many, including BBOWT, the local wildlife trust, and several map pins identified areas where scrub and mosaics are being or could be allowed to develop.

- We greatly welcome the positive approach to recognising the wildlife value of scrub and the inclusion of PM07, PM08, PM24, PM27 and PM37. We also greatly welcome the emphasis put on mosaic habitats, and the inclusion of the wetland matrix concept e.g. PM24, PM27, PM51 and PM54. (BBOWT, Email 11)

- Maintain this area as scrub - high biodiversity, barn owls etc (Map 719)

- An area of the field here is being allowed to scrub up to create ecotones and biodiversity benefit (Map 375)

- Important area for corn buntings - scrub creation and singing posts alongside cereal crops to build out from this stronghold would be good (Map 424)

- Good grassland area with gorse and scrub, which links Local wildlife site to SSSI (Map 514)

- This field would be ideal for a mosaic of grassland, scrub and wetland features (Map 674)

- Area of scrub and willows and stream of value as mosaic habitat (Map 1816)

- PM17 Note the value of the scrub component of wood pasture as part of the overall mosiac - supporting certain stages of lifecycles of deadwood invertebrates (Survey 124)

- I was pleased that P1 refers to creating grasslands that include scrub and mosaic habitats. I also strongly agree with P3, PM07 and PM08 to create 'messier' habitats including scrub, and PM24 to create grass-scrub-tree mosaics including through natural regeneration / rewilding. I would like to see an explicit requirement to encourage development of old scrub, which supports particular invertebrate communities. If scrub is managed by felling on rotation, old scrub will not develop. (Survey 91)

However, there was some disagreement from respondents focused on grassland and fen management, with the Floodplain Meadows Partnership rejecting the idea of including any scrub on neutral grasslands. They also objected to creating scrapes on floodplains.

- Remove reference to areas of scrub from neutral grassland and lowland/hay meadows, where invading scrub just becomes an ongoing management headache/challenge. Better to include scrub with hedgerows &/or woodland. The following shows how contradictory/confusing the text is. I suggest most farmers/land managers will not do this:

66

- Prevent scrub from encroaching while allowing a minority area of scrub that is managed for varied age, composition and physical structure including glades and scalloped edges.
  - Introduce limited scrub and manage to ensure structural diversity.

- I cant see it but just in case I have missed it - need to remove any reference to creating scrapes in floodplains. Destructive to the soil, damages biodiversity and impact on carbon storage. Similarly, treatment wetlands do not work on floodplains. (Survey 69)

A similar conflict was noted for Fen Carr:

- There is a conflict between PM48 re clearing scrub and trees from fens and PM49, supporting Fen Carr. (Survey 91)

6.3.4 Native and non-native species

There was also a tension between using native plant species on which native fauna depends, and the potential use of non-native species, on the grounds that they might be more resilient to climate change. While some comments advocated this, others pointed out issues.

- PM 35 questions whether new trees will survive, but seems to assume that existing native trees will continue to grow as before; but they are quite likely also to suffer badly from climate change and disease. (Survey 66)

- PM68: We are not convinced the use of "and cultivars" is helpful – it is likely to encourage uses of the many commercially available "wildflower" seed mixes and turfs that contain non-natives or garden varieties of native species. This can be a source of invasive species issues, e.g. via introducing more vigorous cultivars of native species that outcompete or interbreed with the originals. Variegated Yellow Archangel (Schedule 9 invasive plant and a cultivar of a wild species) is a good example of how this can go wrong! (Email 9)

Similarly, there were a range of views on control of native and/or non-native species perceived as damaging.

- Suggestion to delete 'non-native' from 'invasive and non-native species' in several places, to include control of native species that are perceived as invasive. (Email 17)

- Some method of controlling both muntjac and grey squirrels should be considered. Both introduced species kill our native trees by eating the bark. Muntjac also eat our rare wildflower seed e.g. orchids and Grass of Parnassus. (Survey 49)

- Deer make an appearance under invasive and non-native. Whilst a key challenge for biodiversity, roe and fallow don't meet my understanding of those terms (Survey 124)

- PM31: managing populations of species that reach unsustainable levels. It could be added that deer and squirrels do play an ecological role in

woodlands. Deer can help to create and maintain open ground, and when squirrels browse young trees they help to create diverse tree structures and imperfections that can create niche habitats for invertebrates. (Survey 91)

- PM31 refers to deer/squirrel control, but no consideration as to whether the public will accept it. (Survey 66)

- Rabbits are a naturalised species which has been here since Norman or probably Roman times performing a vital function as a keystone species to create short grazed grass. Please remove reference to it as a non-native species. Prejudices against particular 'pest' species, some of which are becoming rare, should be countered: ragwort, essential for the cinnabar moth; rabbits, good for rabbit-bitten turf; rock pigeons, good for sustaining other urban wildlife (peregrines); (Survey 86)

- PM25 says "use local species where possible, you could also consider sourcing some trees or seed from a provenance which can tolerate, resist, or enjoy various climate conditions where necessary." However it is almost impossible to determine which species will be robust to future climate change. I believe the LNRS should specify that a diverse mix of native species should be used, rather than allowing non-native species which are less likely to support native fauna. (Survey 91)

6.4   Habitat connectivity

Many of the 246 comments referring to connectivity expressed a desire for a more connected nature recovery network, filling in gaps, especially along watercourses, and linking to surrounding counties. This was framed in terms of increasing climate resilience. One comment thought the corridors were too narrow and suggested trying to make them wider to reduce edge effects. Another suggested using Natural England's habitat networks to link up priority habitat patches.

- I would like to see more attention to joining up connectivity - there are inexplicable gaps in, for example, the river corridors and flood plains (Survey 74, see also Survey 68, Email 9).

- P34 understates the need for connectivity, mentioning it only in terms of its necessity for migration with climate change warming. Connectivity is essential as our nature in Oxfordshire becomes increasingly fragmented into tiny islands, by roads, development and agricultural chemical deserts. There is no robust resilience in small island populations: genetic type becomes homogeneous, biodiversity supporting any one species declines, and then any small disruptive event can destroy the population. This should be clearly stated at the top of the LNRS under PRINCIPLES. (Survey 86)

- Suggest using the NE Habitat Networks Model which is designed to increase connectivity between existing priority habitat (Survey 35, The Environment Bank)

- The final documents would benefit from a description of how efforts have been made to ensure that the LNRS's work across boundaries. (Email 35)

- Would like to see future adjustments to link to the Buckinghamshire LNRS across the County boundary – Bernwood Otmoor Ray region important here. (Email 16)

- To reduce edge effects we suggest:

  o Giving existing habitat blocks a suitable buffer habitat improvement or low intervention agriculture of least of 200m and for many habitats at least 400m wide.

  o Making habitat blocks more round/square, not narrow and long.

  o Considering if narrow habitat areas and corridors are viable and can be widened (Email 16)

6.5   Rewilding

20 comments mentioned rewilding. Several of these asked for more reference to rewilding in the text, typically linked to reintroduction of ecosystem engineers such as beavers and apex predators. Four responses supported re-introduction of beavers, though one thought they could cause problems. Two also asked for apex predators to help control deer numbers, with one of these suggesting a long-term plan for wolves, if a large enough area could be restored to support them (Survey 24).

- Discuss the role of large herbivores and other ecosystem engineers such as beavers (Survey 86)

- I would be happy to have beavers here, but would need support for neighbouring landowners. I like the idea of a "beaver hotline" as described by Isabella Tree, where unwanted beavers are removed and taken to places where they are wanted, so that landowners do not feel threatened (Map 1183)

- There seems to be no reference to rewilding in the text, and no reference to using species-led management of natural spaces, with the exception of beavers. Considering the dramatic, and positive impacts rewilding techniques have had elsewhere, and the many community groups and some farmers in Oxfordshire pursuing rewilding solutions this approach should be explicitly included for suitable areas. This could be incorporated into P1 and PM02 for example, and any action that references the creation of mosaic habitats, open canopy habitat. (Survey 24)

Several comments and map pins identified areas that are already being re-wilded or 'wilded' at a smaller scale, often in community led activities (see Section 6.5).

- Parish councillor: the local people have begun initial work to wild this area (about 1 acre) but work will continue here to restore habitat to a more natural state (Map 1959)

- Stanton House established grounds now a mosaic habitat, further wilding possible (Map 1867)

- I have been rewilding a 200 acre plot in the Chilterns since March 2021. The land joins up two existing areas noted on the map as of 'particular importance to biodiversity.' We have recorded Noctule bats, Skylark, Linnet, Yellow Wagtail, Yellowhammer, Swift and House Martin. We have unmedicated organic native English longhorn cattle so hope to attract some of the dung specialists (some may be present already). Many priorities are relevant and describe what we are doing. For example:
    o Integrate scrub habitat creation to increase biodiversity
    o Low intervention techniques
    o Natural regeneration of oaks near to woodland edges
    o Natural colonisation of trees
    o Create a complex mosaic of new habitats
    o Create buffer areas of scrub along woodland edges. (Email 4, Map 151, 152)

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APPENDIX 1: Membership of LNRS committees

Steering Group (20 people)
Monthly. Purpose - Providing expert input and guidance to steer the project and make decisions.
Membership:
Oxfordshire County Council, Supporting Authorities (District and City Councils), Oxfordshire farmer, National Landscapes representative, Wild Oxfordshire, Oxfordshire Local Nature Partnership, BBOWT, Forestry Commission, Environment Agency, Natural England, OxLEP.

Engagement and Consultation working group Monthly. (16 people)
Purpose – develop and implement an engagement plan for the LNRS
Membership:
OCC, Wild Oxfordshire, NFU, CLA, Oxford University (Leverhulme), Community Action Groups Oxfordshire, Natural England, BBOWT, OLNP, Supporting Authorities.

Supporting Authority working group (5 people)
Monthly. Purpose – To develop the LNRS with our District and City Councils.
Membership: Cherwell DC, Oxford City Council, Oxfordshire County Council, South and Vale DCs, West Oxfordshire DC.

Evidence, Data, and Monitoring working group
Monthly. (11 people)
Purpose – to advise the LNRS how to collect, use, and publish data.
Membership: OCC, Wild Oxfordshire, BBOWT, Natural England, Environment Agency, Forestry Commission, TVERC, Supporting Authorities, Oxford University (Leverhulme).

OCC Project Board (9 people)
Monthly. Purpose – To ensure the project is meeting quality standards considering cost, time, and delivery.
Membership: Oxfordshire County Council Directorate and teams, Supporting Authorities, OLNP.

Natural England reporting (2 people)
Monthly. Purpose – checking delivery and quality against national and statutory criteria.
Membership: OCC, Natural England.

Species Technical Group, online Occasional. (80 people)
Purpose – via emails or meeting online to provide expert input into species presence and distribution across Oxfordshire and how best to support species recovery in the county.
Membership:
About 80 people across Oxfordshire

Prioritisation working group
Monthly. (11 people)
Purpose – To advise the LNRS about what to include or exclude as priorities, measures, and mapped locations in the LNRS.
Membership: Professor in Conservation Science, Leverhulme Centre for Nature Recovery, Oxford City Council, BBOWT, National Landscapes, LNP Health and Nature, Local Planning Authorities, TVERC, Wild Oxfordshire, Natural England.

OCC Internal working group (16 people)
Monthly. Purpose – To communicate about the LNRS with teams across OCC.
Membership: OCC teams (biodiversity, flood risk, climate adaptation, strategy planning, environment and heritage, landscape specialist, arboriculture, healthy place shaping, communications, GIS, marketing, minerals and waste, archaeology, engagement)

Relevant Groups (300 - 400)
Key groups to invite to workshops and events including many community groups, local organisations, landowners, and businesses.

Oxfordshire Residents (725,300)
Shaping LNRS priorities, measures, and mapped locations via surveys, workshops, and a public consultation in 2024.

Other Responsible Authorities creating neighbouring LNRSs in England (~10 people)
Monthly. Purpose – to discuss cross-border practices and promote collaborative working to align neighbouring strategies. Occasional regional meets with Defra.

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APPENDIX 2: Details of AI approach for classifying the consultation responses into themes

We used an AI software toolkit, Google AI Studio, to help separate comments into themes and subthemes for the Oxfordshire Local Nature Recovery Strategy. We used the freely available API from Google, see here: https://aistudio.google.com. To use it programmatically, you need to sign up for an account and generate an API key.

The methodology was as follows.

1. We imported the survey data from an Excel sheet into Python using the pandas package (which is freely available).

2. We cleaned the data to remove personal details.

3. Our survey responses were split into specific questions, e.g. 'Do you think any species should be added to the draft Species Priority List' (see Table 1 in main report). We formatted all the survey responses to a specific question into a single prompt for the Large Language Model (LLM), along with the instructions given to the survey participants. The prompt was followed by: "Are there any major themes emerging from these responses? Please provide specific references to individual responses. Make sure to identify themes from all the different responses provided."

This approach worked well for generating an initial set of themes, which our experts could then analyse and refine. Once they agreed on a set of themes, we used those to re-cluster the rest of the responses. Additionally, the Gemini LLM was able to format responses into .csv files suitable for easy export and sharing.

Other AI approaches could also be used, such as the BERT-based topic modelling used in this paper: https://www.nature.com/articles/s41893-024-01454-z.