



# Creating Natural Connections: Final Evaluation of Outcomes for People

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Trust



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## Executive Summary

### Introduction

This report presents findings about the impact of the people-focused activities of the Creating Natural Connections project, delivered by Cumbernauld Living Landscape. This evaluation of impact used a suite of three different research methods. The research reported here was led by social scientists at The James Hutton Institute, Aberdeen, UK. It is intended to be used alongside evaluation data collected by other project partners, and previous findings reported at the mid-term evaluation.

The outcomes we assessed the project against were:

- More people feel like they are using their skills in the community
- More people feel like part of their neighbourhood
- More people feel able to use their greenspaces
- More people feel that they can help improve the environment
- More people feel better when outdoors in nature
- More people feel that they can work together to improve the community

### Evaluation methods

The research comprised three components:

- **Community-based research:** Interview research undertaken by members of the community – ‘community researchers’ – supported by professional researchers from the James Hutton Institute.
- **Capabilities survey:** Measuring peoples’ capabilities for engaging with nature and changes in capabilities, using written surveys.
- **Storytelling approaches:** Documenting participants’ own stories of their experience of the project and the engagement with the natural environment, using a variety of visual, digital, and oral approaches.

This suite of methods was devised to meet three objectives. First, we sought to gain a deep insight into people’s experiences. Second, we wished to effectively engage the variety of groups with whom the project worked. Third, we wanted to facilitate the involvement of more diverse voices in the evaluation through the inclusion of participatory research methods.

### Findings

Overall, the research highlighted successes of the Creating Natural Connections project across the six project outcomes, despite the challenging circumstances presented by the COVID-19 pandemic. These findings are summarised in Table 1 against the six project outcomes. Participants in the project activities noted positive impacts of their engagement particularly in terms of mental health and wellbeing, sense of connection to the community and to nature, learning about nature, and ability to use greenspaces. The research also highlighted positive feedback from community leaders and organisers, noting that CNC has raised awareness, made greenspaces more accessible, and facilitated engagement with the natural environment. There is also evidence that the project has contributed towards

building community capacity to care for the local environment and build connections between people. Areas of potential for Cumbernauld Living Landscape to explore in the future were also identified.

*Table 1: Synthesis of main findings from across the three evaluation components*

Outcome	Main findings
More people feel like they are using their skills in the community	<ul style="list-style-type: none"> <li>• Project participants gained practical nature-focused skills (e.g. managing vegetation) but also other skills such as first aid. Participants gave examples of how they had used these skills elsewhere.</li> <li>• Some participants noted that they became more confident talking to others about nature in their local area and about environmental issues more generally.</li> <li>• The project harnessed the specific skills and experiences of the project staff and trainees.</li> <li>• The project gave trainees and community researchers the opportunity to develop skills which then led to paid employment delivering nature-based activities in the community.</li> </ul>
More people feel like part of their neighbourhood	<ul style="list-style-type: none"> <li>• The project is perceived to have had a positive impact in connecting people to their local environments, including through learning about greenspaces they did not previously know about.</li> <li>• The project's group activities offered participants a sense of community and a way to connect with others.</li> <li>• Beyond the project's group activities, community organisers and representatives noted the value of outdoor and greenspace related activities for developing and maintaining connections within neighbourhoods.</li> </ul>
More people feel able to use their greenspaces	<ul style="list-style-type: none"> <li>• The project's activities have given people the opportunity to use greenspaces in a social setting where they feel safe and supported.</li> <li>• Nature Ninjas and Wild Ways Well group activities, and the project's engagement with community groups, have helped develop people's knowledge of the greenspaces available. Project participants have used this knowledge to introduce others in the community to local spaces.</li> <li>• Participants suggested the project has also raised awareness of greenspace and nature in Cumbernauld more widely.</li> <li>• Across the Nature Ninjas, project volunteers and trainees, individuals' capabilities for engaging with nature were already very high. This meant little change in capabilities scores were observed overall.</li> <li>• Many community members talked positively about how the work of the project has made greenspace more accessible, through improvements to habitats, access and signage.</li> <li>• COVID-19 impacted people's relationships with their local greenspace. The impact of the project on overall use of Cumbernauld's greenspaces is therefore difficult to isolate.</li> </ul>
More people feel that they can help improve the environment	<ul style="list-style-type: none"> <li>• Participants across the three evaluation components showed high levels of confidence and awareness about how they can help to improve the environment.</li> </ul>

Outcome	Main findings
	<ul style="list-style-type: none"> <li>• Project participants felt they had made positive contributions to improving the environment and felt that this was both personally rewarding and of benefit to others.</li> <li>• Project participants shared experiences of getting involved in environmental improvements outside of the CLL organised activities.</li> </ul>
More people feel better when outdoors in nature	<ul style="list-style-type: none"> <li>• People identified a range of benefits to their health and wellbeing from taking part in project activities. These included getting physical exercise, fresh air, mental health benefits, and spiritual wellbeing.</li> <li>• Some participants noted a particular positive impact on their mental health, which was seen as especially important during COVID. Both being outdoors and the social aspect of activities contributed to feelings of wellbeing.</li> <li>• It is however important to note that not everyone feels safe alone in their local greenspaces.</li> </ul>
More people feel that they can work together to improve the community	<ul style="list-style-type: none"> <li>• The project has empowered participants to feel they can and are making a difference in their community.</li> <li>• The project's work with community groups was seen to have increased the capacity of the community.</li> <li>• CNC has reached a wide range of different audiences through a variety of modes of communication and through building relationships in the community.</li> </ul>

The project also offers a useful model of an integrated landscape-scale approach to greenspace interventions for practitioners in the greenspace and environment sector. Figure 1 illustrates this through an infographic, drawing together insight from across this project and the wider literature.

# Inclusive Greenspace Initiatives to support COVID-19 wellbeing recovery



COVID-19 has affected us in many ways:

- Health • Wellbeing
- Recreation opportunities
- Mobility • Work-life balance



Greenspaces have played an important part in supporting resilience. But there is an equity issue: existing inequalities in greenspace use and access remain, or have been exacerbated by the pandemic.

Greenspace initiatives have the opportunity to:



Target mental health support where it's most needed



Build on new norms of social activities outdoors



(Re)build intergenerational connections



Get more people involved in looking after local spaces

Initiatives need to take steps to include (and not to exclude) some key target groups:



Minority ethnic communities



Older People



People experiencing mental health challenges



People with disabilities



People living in deprived areas

Research at the James Hutton Institute shows how landscape-scale approaches like Cumbernauld Living Landscape can tackle inequalities and connect people to wildlife

## Nature-based interventions

- Targeting and tailored to specific groups
- Improving health and wellbeing
- Building support networks
- Helping people to get outdoors

## Building community capacity

- Working together to support nature
- Building on existing partnerships
- Strengthening community connections
- Developing skills, confidence & employability
- Signposting resources

## Improving the green network

- Making places safer
- Improving access and infrastructure
- Improving habitats for wildlife and people
- Developing stewardship through engagement programmes



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Figure 1. Infographic: How inclusive greenspace initiatives can help support wellbeing, particularly in the recovery from the impacts of COVID-19. Communication produced to engage environmental sector professionals via social media.



# 1. Introduction

## 1.1 Outcomes for people and communities

This report contains insights from the evaluation of the people-focused outcomes of Creating Natural Connections (CNC), also branded as Cumbernauld Living Landscape (CLL). The aim of this part of the evaluation strategy was to assess the extent to which the people-focused activities of the project, contained within the following workstreams, achieved the project outcomes:

- Unlocking community capacity
- Connecting young people to nature
- Promoting green health and wellbeing

The people-focused outcomes we assessed the project against were:

1. More people feel like they are using their skills in the community
2. More people feel like part of their neighbourhood
3. More people feel able to use their greenspaces
4. More people feel that they can help improve the environment
5. More people feel better when outdoors in nature
6. More people feel that they can work together to improve the community

However, the research also highlighted some of the ways in which the activities within the 'Improving habitats and access' workstream contributed to project outcomes for people, and we have included mentions of these in the report.

## 1.2 Evaluation methods overview

In this report we present the findings from the three evaluation components led by researchers at the James Hutton Institute, Aberdeen, UK. These were:

- **Community-based research:** This involved working with community researchers who conducted qualitative research to understand the impact of the project on the local community. Community researchers are lay people recruited from within the community. This research method is sometimes called citizen social science or community-based monitoring.
- **Capabilities survey:** This component focused on the collection of quantitative and open-ended qualitative data through a survey. The primary aim was to measure peoples' capabilities for engaging with nature and greenspace and identify any changes. Nature-engagement capabilities can be understood as capabilities relating to an individual's physical and psychological capacity to engage and connect with nature, which includes having the necessary knowledge, skills, emotions and social support.
- **Storytelling approaches:** In this component we sought to document participants' own stories of their engagement with the natural environment through the project. This approach initially focused on participatory video (a group-based activity), however, due to disruption caused by the COVID-19 pandemic, it was modified to digital storytelling and narrative-based interviews.

These approaches were designed as a suite of complementary methods which would produce both quantitative and qualitative insights into the impact of the project. Using a range of different methods was particularly important because of the diversity of different groups and audiences the CNC project sought to engage. As well as including a traditional survey-based method, we included methods centred more on participatory processes which involved members of the community and project beneficiaries in the evaluation, and using verbal and visual ways of communicating. This meant we were able to tailor the research to the project's target groups, including children and young people, and people at risk of poor mental health or with additional support needs. Table 2 shows the different groups engaged using each of the evaluation methods.

*Table 2: Target groups engaged using the different evaluation methods*

<b>Evaluation method</b>	<b>Target populations</b>
Community-based research	Community group leaders and organisers; elected community representatives
Capabilities survey	Nature Ninjas; project volunteers and trainees
Storytelling approaches	Wild Ways Well participants; secondary school pupils; Nature Ninjas; primary school teacher; CLL staff and trainees

The inclusion of vulnerable and hard-to-reach groups also meant it was particularly important to consider the ethical aspects of doing research with these groups. Ethical considerations covered, e.g. informed consent, confidentiality, risks and benefits to participants, limiting bias, and sensitivity to the competencies and needs of different groups. All the research approaches discussed in this report were reviewed by The James Hutton Institute Research Ethics Committee before data were collected. This also included review for compliance with data protection legislation.

The three evaluation components covered here were designed to sit alongside other evaluation methods undertaken by project partners, e.g. The Conservation Volunteers (TCV) evaluation of Wild Ways Well programme, Scottish Wildlife Trust (SWT) feedback forms at events.

### **1.3 Report structure**

The report is made up of several parts. Section 2 presents the findings of the community-based research, Section 3 focuses on insights from the capabilities survey, and Section 4 discusses the findings of the storytelling research. Section 5 reflects on the strengths and weaknesses of the different methods for project evaluation. Finally, the conclusions (Section 6) synthesise the findings from across the evaluation components.

With respect to the community-based research and narrative storytelling sections, it is important to note that these focus on findings from research conducted in Year 4 of the project. These findings should be read in conjunction with the mid-term (Year 2) evaluation report since the research at these time points engaged some different groups, or different participants.

## **2. Community-based research**

### **2.1 Summary and key findings**

In the community-based research component of the evaluation community researchers undertook interviews with community group leaders and organisers, as well as elected community representatives. Interview participants talked positively about Cumbernauld Living Landscape (CLL) with respect to their experiences of engaging with the project and the impacts of the project in the community. CLL was seen to be making an important contribution to building community capacity. This was discussed in relation to empowering people to make positive changes to the physical environment in Cumbernauld, but also to building wider capacity in relation to connecting people in the community and supporting community-based action in the town.

The COVID-19 pandemic impacted on the project delivery, as some relationships and partnerships that were beginning to be developed before the pandemic had been disrupted and had not yet been re-established. In these cases, there was still a positive perception of CLL and an appetite for working together in the future. COVID-19 also impacted on people's relationships with the outdoor space in Cumbernauld, with a general perception that the pandemic led to an increase in use of greenspace, some of which has been sustained in the longer term. The backdrop of COVID makes it difficult to isolate the impact of CLL on use of greenspaces, but participants talked very positively and specifically about ways in which CLL's work has raised awareness of the greenspaces in Cumbernauld and made them more accessible through habitat management, access improvements and signage.

### **2.2 Community-based research method**

Community-based research was conducted at three time points in the project: (i) Year 0 (during the project development phase, intended to provide a baseline), (ii) Year 2 (at the project mid-term), and (iii) Year 4 (at the end of the project). Community researchers were employed at each of the three time points to co-design the research and collect the data, with support and training from professional social researchers from the James Hutton Institute along the way. Year 0 research did not provide a baseline as intended due to failure to retain the community researchers for the duration of the research. The approach was revised for the Years 2 and 4 research, with more intensive engagement of community researchers over a shorter timescale and giving the community researchers a specific focus on evaluating the project outcomes. Four community researchers joined for the Year 2 evaluation. With support and training from Hutton researchers, they designed and carried out semi-structured interviews with community group leaders/organisers and elected representatives. Community researchers also carried out some analysis and reporting of the data.

In the Year 4 evaluation the approach was replicated, with three of the four community researchers from Year 2 returning to the project. The community researchers joined Scottish Wildlife Trust (SWT) as part-time staff members from November 2022-February 2023. These community researchers undertook interviews with 15 community members, including representatives of community councils, community groups, local government community services and charitable organisations, as well as local elected representatives. Interviews

were mainly carried out online using video-conferencing software, and lasted 35 minutes and 58 seconds on average. Analysis and reporting were conducted by the Hutton researchers. The purpose of the interviews was to gain in-depth insights from community leaders and organisers. Qualitative research of this type aims to understand an issue in depth, rather than engage a representative sample of a population.

This report presents findings from the Year 4 evaluation and should be read alongside the mid-term (Year 2) evaluation findings. Although some participants were interviewed at both stages of the evaluation, overall the research captured different experiences of CLL, and impacts achieved at different points in the project.

## 2.3 Findings of the community-based research

More people feel like they are using their skills in the community

- CLL has allowed people to use both general and greenspace-related skills in their communities.
- Some people are using these skills out with CLL events in their neighbourhoods, and to help others not directly involved with CLL.
- There is potential for CLL to do further work with children, young people and families to develop skills.

The interviews with community group representatives and organisers highlighted skills that had been developed and “empowered” (Interview 13) through interactions with CLL, including both practical nature-based skills (e.g. scything, wildflower planting) and soft skills like communication. One interviewee who was previously a Nature Ninja is now using greenspace management skills in their local area, giving an example of trying to improve a woodland close to their house. Other participants talked about how they had worked to improve local spaces in small ways like planting wildflowers and planting the areas at the base of street trees.

Others gave examples of using communication skills in the community when embarking on work in local greenspaces. People feel confident speaking to members of their community about the work that is going on in the greenspaces, and explaining what benefits these have, with seemingly positive responses:

*“Like people that were walking their dogs had stopped and were asking what was going on and getting to explain to them that the wild flowers aren’t--, cos a lot of people were like oh, it’s just a mess down here, but you have to explain to them no, this is actually to help increase biodiversity and it helps the land and things like that, and after talking to them they were like oh, ok, I get that.” (Interview 4)*

Several of the participants talked about the role of CLL in skills development of children, young people and families. These included practical skills learned from taking part in habitat improvement work:



*“So they learned about technical, practical skills, like how to use the equipment... They learned about layering... and then they had the craft thing at the end that they made use of what they’d actually cut.”*

*(Interview 5)*

Some of the participants working with children and young people hoped to engage more with CLL in the future. They identified the added value that this could bring to their work with young families and for helping young people build *“skills for life and for work”* and carrying on to positive destinations after leaving school.

#### More people feel like part of their neighbourhood

- Some participants told us that CLL has had a positive impact in connecting people to their neighbourhood.<sup>1</sup>
- Others talked more generally about community spirit in different areas, including those where CLL has been engaging with community groups. It is difficult to identify the specific contribution of CLL’s partnership working.
- Outdoor activities were noted as a valuable way to develop connections with others in the community.

A few participants talked explicitly about their perception that CLL has helped people to feel more connected to their community:

*“Living Landscape I think has been really major in connecting people to their local environments.” (Interview 15, an elected official)*

Most, however, talked more generally about the sense of community in the area they live or work in, with the interviews highlighting overall that there is a great deal of variation within Cumbernauld in terms of the community connectedness. Participants gave examples of neighbourhoods that were seen to have a particularly strong community spirit, many of which CLL has been engaged working with community organisations or making habitats and access improvements. In these areas CLL has worked in partnership with organisations like the community council, and it is not possible to identify specific impacts of CLL on people’s connection to their neighbourhood. There is also a question of whether existing community capacity in these areas made it more likely that successful partnerships were developed as the presence of existing active community groups offers greater opportunities for engagement. However, one participant also noted areas where the community councils had folded and where there was a *“more serious disconnect”*, stating the view that CLL projects happening in the woods in one of these areas *“does connect people”*.

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<sup>1</sup> We have interpreted the word ‘neighbourhood’ broadly to encompass impacts to people’s connection to the physical environment of their local neighbourhood and connections between people and feelings of belonging to a community of people.

COVID was also highlighted by participants as a factor influencing people's connection to their neighbours and neighbourhoods. One participant felt that the COVID-19 lockdowns led to some people being more reclusive, whereas in some areas people made extra effort to look out for one another. Another noted that COVID-19 made them personally want to make more connections because of feeling isolated during the pandemic. These experiences form part of the changing context CLL operated in during the 4 years of the project, and add to the difficulty of identifying the project's specific impacts.

Some participants discussed the experience of being outdoors in nature as a way of connecting with others in the neighbourhood, through, e.g. dog walking or walking:

*"...the more you go out, the more you meet people. The more you get out into wherever it is, you know, walk down to the community park, run into folk and you say did you see the buzzard? Things like that and you start a conversation." (Interview 8)*

Another participant mentioned signage as contributing positively to reinforcing the sense of identity of their neighbourhood.

One interviewee had used Wild Ways Well principles and resources (from working with CLL) and employed them in their own work in the community. They noted: *"...it's great that two organisations can come together and give something really positive to families and I really think Cumbernauld Living Landscapes do a fantastic job"*. This interviewee highlighted an example of work they had instigated with their group during COVID-19 – focusing on families gardening together – which highlights how greenspace work can enhance neighbourhood relations:

*"...neighbours were commenting on how wonderful it looked. They were then getting involved, they were giving them the potatoes, like we'll give you something to grow. A couple of the little kids even went round the whole street where they live with a lot of their veg, giving it out, gave them some seeds to say try and grow some yourself." (Interview 6)*

#### More people feel able to use their greenspaces

- Interviews indicate that more people do feel able to use their greenspaces.
- Many of the participants talked about how CLL's habitats and access improvements, including the increased signage and interpretation, had made greenspace more accessible.
- Interviewees also highlighted success by CLL in raising awareness of greenspace and nature in Cumbernauld.
- The COVID-19 lockdowns led to more people using local greenspaces, with some of this increase sustained in the longer term.

The interviews highlighted two main ways that CLL's work has contributed to more people feeling able to use their greenspaces: (i) by raising awareness of local greenspaces; and (ii)

through directly improving the accessibility of the greenspaces themselves. Several participants talked positively about the profile that CLL has built and how it has increased awareness of the greenspaces that are available:

*“But I think as well what Living Landscape has done is it’s promoted the greenspaces in the town. There are people who probably know about these spaces now who didn’t know about them before due to the work that at Living Landscape has done, they now know and use these spaces.”*  
(Interview 2)

*“The fact that they promote the existence of these spaces. A part of it just about letting people know that they’re there, so I think they do a good job of that as well, on social media as well, actually promoting the spaces and the work that they’ve done.”* (Interview 12)

Some noted specific examples of spaces they had learned about through their engagement with CLL, or that they hadn’t previously considered they could use as part of their work with groups in the community.

Many participants talked about their belief that CLL has made greenspaces more accessible: through improvements to paths, by thinning woodlands and managing vegetation, and also through signage and interpretation. One participant noted:

*“...the CDC [Cumbernauld Development Corporation] just planted and planted to the point where these were not viable woods or... I would say inviting, you know, so they were dank, dark places that people wouldn’t go, so I think now you’ve got a really good green network”*  
(Interview 13)

It was noted that the increased signage has helped people feel more comfortable going for walks in greenspaces, reducing anxiety around spending time in nature. CLL is therefore seen to have had a positive impact both on the physical and psychological accessibility of the greenspace.

Several participants commented that greenspaces in Cumbernauld were generally well used, although some noted less well used or less appealing areas. There was a perception amongst participants that use of the greenspaces has increased. The COVID-19 lockdowns (when daily outdoor exercise was permitted but leisure activities away from the home were not) were seen to have increased use, and although some of that tailed off after the restrictions were removed there was a view that many people still go out more.

*“...since COVID I think one of the good things is it’s got people out. I’ve seen more people walking all the time—”* (Interview 8)

## More people feel that they can help improve the environment

- People interviewed show high levels of confidence and awareness in helping the environment. Examples mentioned included planting/removing bulbs, removing invasive plant species, managing wildflower areas, and undertaking litterpicking (individually or within groups), to help improve the habitat.
- There was also a perception that more people in the community are getting involved to help improve their local environment.

Many of those interviewed demonstrated clear confidence and awareness of ways in which they can help to improve the environment, referring to sustained efforts in the community to achieve this outcome. Participants referred to litter picks, both organised in groups and individually or informally among friends and neighbours. Some people started by attending litter picks organised by CLL, and have continued to litter pick alone whenever they are outside in greenspaces, or in their immediate neighbourhood greenspace. One participant commented on how individual actions can spur on others to join in helping to improve the environment, and many showed an eagerness to continue to help the environment in ways that they can:

*“And how else can we improve the planet? You know, we can’t change global warming. We as individuals can’t actually do a great deal, but we can change our local environment.” (Interview 14)*

Others engaged in planting native wildflowers, and sharing knowledge about the biodiversity benefits of wildflowers with other residents (including explaining why wildflower patches might look messier than ‘manicured grass’ but that the environment benefits). One interviewee who had previous experience with the Nature Ninjas discussed how they use knowledge gained to help improve their environment, taking it upon themselves to remove some invasive ivy in woodlands near their house. Some participants made clear links between their experience of working with CLL and feeling like they can help improve the environment, although some also indicated they felt strongly about the environment before involvement with CLL.

Some participants noted that a barrier to people feeling like they can help improve their environment are perceptions that residents would not be allowed to make changes on council or communal land, or that it is the responsibility of the council. CLL are clear that landowner permission is needed for residents to make improvements. Another barrier discussed was that people do not necessarily know how to get involved. Having more organisations working together to improve the environment may be helping to overcome these barriers:

*“You’ve also seen quite a number of people involved, either in groups or through their community councils or just informally, much more involved in litter picking and in maintaining their community, much more interest in the environment that we have... ..I think what you’ve seen generally is*



*more organisations, more people just coming together to help, but feel more empowered to do it and not waiting for it to be done.” (Interview 12)*

### More people feel better when outdoors in nature

- Many people expressed that being outdoors made them feel better, highlighting a range of benefits for themselves and for the communities they work with.
- Being outdoors with other people was highlighted as important as well.

When asked about how they feel when they are outdoors in nature, participants were strongly positive, providing animated responses about the benefits and the positive impact on mood and wellbeing they experienced. Participants highlighted *“a great impact on mental wellbeing”* (Interview 4) and how being outdoors is about *“Fresh air. Mental health. Physical health. Company”* (Interview 11). One participant felt that listening to birdsong and taking in the natural environment around you *“centres you”* (Interview 13), while another pointed to the benefits of seeing others enjoying the outdoors as well.

*Interviewer: How do you feel when you’re outdoors?*

*Interviewee 14: I love being outdoors.*

*Interviewer: It’s evident. You can hear it in your voice.*

*Interviewee 14: I love seeing the kids discover and notice things that maybe they didn’t notice or discover before, or appreciate that this is living things that they are stepping on and that they should step a little bit more lightly and look at the flowers and look at the trees and look at the birds and look at the nests and look at the-, hear the birds.*

There was some mention of how different people might experience being outdoors in nature differently, with one respondent suggesting that others may not always feel safe when outdoors: *“I feel safe, but then I’m probably not the demographic that could be worried, it’s maybe younger people, youths or whatever else or women”* (Interview 1). One female interviewee commented that she wouldn’t feel safe alone in greenspaces (Interview 12). Another interviewee (Interview 7) cited a recent tenant satisfaction survey which showed residents’ satisfaction with the *“wider environment”* had declined in the last few years – whilst this survey was not greenspace specific, it does suggest there continues to be opportunities for further improvements in some areas of Cumbernauld, beyond all that CLL has achieved.

Finally, one interviewee (Interview 11) suggested that getting outdoors with a CLL walking group was directly responsible for improvements in the mental health of the young people from a support group they worked with, particularly during the lockdowns and continued impacts of the pandemic. Others reasoned that being outdoors can facilitate social connections, which in turn has positive benefits. Events and groups run by CLL have allowed people to make the most of these connections, which has been particularly valued in the context of reduced social contact under COVID-19 restrictions.

### More people feel that they can work together to improve the community

- There was praise for and emphasis on the work of CLL involving the community, and in engaging across community groups to reach a wide range of people.
- One interviewee suggested that enhanced online communication post-COVID lockdowns has helped to allow more people involvement in community work.

Interviewees were positive about how CLL has worked together with others to improve the community, and how this engagement will enable people to work together on projects in the future. Interviewee 10 commented *“the capacity of the community has certainly increased”*, while Interviewee 6 praised the work that CLL has done with the community to involve them in the improvement of their own areas:

*“they’ve done so much within the area as well and I just think it’s great because people who are volunteers, it’s going to be people that live here, do you know what I mean? And they’re making their own area easier to get around for them and their own families and everyone else.”*

One interviewee highlighted how the work of CLL had encouraged other community bodies to consider implementing smaller projects they might not previously have considered without learning from what CLL have been doing. Another respondent (Interviewee 8) emphasised how CLL had worked closely with community groups, pointing out that good communication was key to making such engagement successful, while another interviewee (Interview 4) spoke about their involvement with a project to improve biodiversity in the local community, and how a number of participants had engaged after hearing about the initiative through CLL. CLL took the initiative to work together through other community groups such as a Baby Bank, enhancing support for new parents, and working with others to support the community, again, particularly during the height of the pandemic.

*“We commissioned the Baby Bank to do us some craft packages for children and that was when the Living Landscapes came on board as well. And they gave us material that we were able to put out in those craft packs... it was just about recognising that there were kids at home who maybe didn’t have a lot of resources... we were dead conscious that we could go beyond the scope of just feeding people at that point in time... The feedback we got was really good. It was really great, from little kids sending us in thank you letters and cards and things like that, ... That was great partnership working, it was great, with Living Landscapes and other partners and everybody had the same focus, it was about what can we do to support people in our community.” (Interview 10).*

Together, these responses suggest that by working closely with and as part of the community, CLL has facilitated connections between community members and organisations that have supported engagement with nature, and improved the community.

## Looking forwards

- People have noticed changes to the area as a result of CLL work.
- Some were disappointed that engagement with CLL had not gotten off the ground again after COVID-19.
- Others shared ideas for CLL going forwards, groups that would benefit from being more targeted, resources that the community would continue to benefit from, and better communication.

Local residents have noticed clear changes as a result of the work CLL have been doing, and people spoke highly of CLL in their interviews. For example:

*“It’s been a great asset to the town to have Cumbernauld Living Landscape and to be taking forward projects like improving greenspaces [...] it’s been resurfaced, it’s got better lighting, better drainage, it’s a landscape. So yeah, Living Landscape has made a big positive difference to the town.”*  
(Interview 2)

People spoke highly of the CLL project staff and the impact they have had on the local community, and were keen for this to continue after the end of the project:

*“But I mean [Staff Member] made up the group with his stories. [...] he was great, he was absolutely fantastic with our guys.”* (Interview 11)

It is clear that COVID-19 has had a substantial impact on the project’s ability to engage with some parts of the community. Some interviewees highlighted that a lot of the broader community-based activity was only just getting re-started, and it is also likely that staff changes and the needs to accelerate habitats and access projects that had paused during lockdowns contributed towards this. Interviewees were keen to have the opportunity to engage with CLL again, e.g. to support them in organising walking groups, or to deliver engagement activities for children and young people through schools and other organisations.

Throughout the interviews people shared constructive ideas for work CLL and other similar projects could focus on should future funding allow. In particular, interviewees made suggestions related to enhancing inclusion through offering activities for specific target groups, and in communication.

- **Developing the focus on inclusion:** interviewees suggested that future opportunities for CLL could focus around facilitating greater inclusion in the community through engagement activities and access work. One interviewee noted opportunities to increase accessibility for people with additional support needs, whether through ensuring more walking paths are accessible, or through developing or supporting targeted walks aimed at specific groups, e.g. a quiet walk, a buggy walk for young parents, a slow walk, ASN (additional special needs) friendly walks. Activities for young people, older people, and people new to the UK (including those displaced by

the war in Ukraine) were highlighted in several interviews as groups that might benefit from tailored engagement activities.

- **Enhancing communication:** Some of those interviewed felt that it was not always clear where best to get information about events and work of CLL. Interviewees also suggested additional opportunities could be offered by providing information in frequently-used languages other than English, and by discussing plans and schedules for activities with relevant community groups. There is a desire for continued communication with schools and with groups engaging children, young people and families more broadly, and an encouragement for CLL to increase its visibility by participating in wider community events (e.g. Gala Days) as they restart after the pandemic.

### 3. Capabilities survey

#### 3.1 Summary and key findings

Overall, participants in the Nature Ninjas, project volunteers and trainee programmes at Creating Natural Connections (CNC) / Cumbernauld Living Landscape (CLL) were already frequent users of greenspaces, with high agreement that they could help the environment, that being out in nature was beneficial to them, and that they could work together to improve their community. Participants also had very high capabilities for engaging with their greenspaces. Although this meant that there was little change on average across the whole participant group, by following people through time we did see the impact that the CLL programme could have on an individual level. Three participants increased their use of greenspaces over time, and nine participants felt that their capabilities for engaging with greenspaces had improved. The comments left by participants also highlighted the value of the programme for them, even if they did not change their use of greenspace.

#### 3.2 Capabilities survey method

A survey was developed in collaboration with CLL. Questions focused on: demographics, extent of project involvement, capabilities for engaging with greenspace, and agreement with the CLL three key outcomes – 1) More people helping nature, 2) Nature helping more people, and 3) More people helping each other with the goals of better greenspaces for people and wildlife and a community network connecting people to nature. In addition to these close-ended questions, a space for comments was provided. All individuals who were taking part in the Nature Ninja conservation volunteering, Trainees and Project Volunteers were invited to complete a survey.

The CLL programme began in the last quarter of 2019, before the COVID-19 pandemic and associated restrictions. The final period of 2019 and the first period of 2020 were carried out entirely in-person. From May 2020 an online programme was introduced, with in-person activities beginning again in July 2020. With the exception of December 2020 and January 2021, when COVID-19 restrictions again prevented in-person events, both online and in-person events were held from July 2020. Surveys were completed in-person for the final period of 2019 and the first period of 2020, and online thereafter. Although intended to be



conducted every quarter staff changes at CLL meant that autumn collection did not take place (Table 3).

*Table 3: Overview of the quarterly periods as they aligned with the in-person and online projects.*

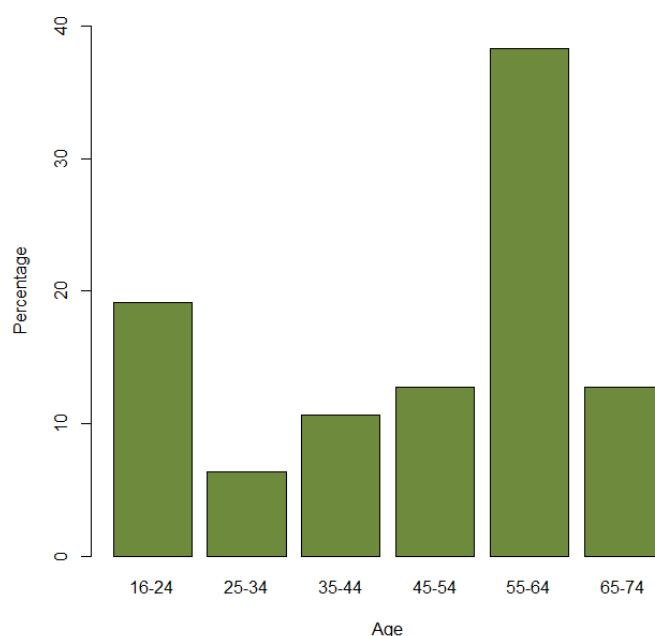
*X indicates when data collection took place. In summer 2020 in-person activities were predominantly guided walks, rather than hands-on conservation due to COVID-19 restrictions.*

	2019	2020				2021				2022
	Winter	Spring	Summer	Autumn	Winter	Spring	Summer	Autumn	Winter	Spring
In-person	x	x								
Online			x		x	x	x		x	x

Surveys were carried out following ethics approval from the James Hutton Institute (No. 176/2019). The procedure for implementation of the survey was developed in collaboration with CLL staff to minimize disruption to project delivery and maximize opportunity for response from individuals involved in the CLL volunteer projects. Data collection for in-person surveys was specifically coordinated by a specific staff member. Online surveys were managed by the CLL manager.

### 3.3 Findings of the capabilities surveys

Respondents to the survey included those involved in: Nature Ninja conservation volunteering, Trainees and Project Volunteers. Across the whole time period 95 surveys were completed, by 48 unique individuals (9 survey responses did not give an ID number, and have been treated as unique individuals throughout), with 23 individuals submitting a survey response in more than one time period. Overall respondents were predominantly female (69%). The most common age group of respondents was 55-64, with no respondents over the age of 74 (Figure 2). Most respondents lived in Cumbernauld (72%), and 29% worked in Cumbernauld.



*Figure 2. Age of respondents. Unique respondents across all time periods (n=48)*

### More people feel that they can help improve the environment

Across all individuals, feeling that they could help the environment was high, with 88% agreeing with the statement. For those individuals with multiple responses only one showed a change in agreement, moving from strongly disagree to strongly agree from winter 2020 to spring 2021.

In addition to the work directly in CLL, one participant also mentioned that they do litter picking with the Community Council. For some respondents who live outside of Cumbernauld they also express a wish to carry out similar activities in their local area. The work carried out by CLL was identified as *“worthwhile”*, making a *“positive contribution to the local greenspaces”*.

### More people feel better when outdoors in nature

The survey revealed that most respondents visit nature frequently: 82% visit several times a week, and all visit multiple times a month. Amongst those who provided responses at multiple time points, three individuals reported an increase in their frequency of use. Despite 94% of individuals stating that they have someone to visit greenspace with, not having people to visit greenspace with was not a barrier to access for the respondents of the Nature Ninja group.

Although the surveys were only carried out with participants in a sub-set of CLL activities, 19 of the respondents had previously taken part, or were currently taking part, in other CLL activities. The most common additional way of interacting with CLL was through Wild Ways Well or one-off events, with 10 individuals having participated in either or both these types of activities. Of the respondents that also took part in Wild Ways Well, 8 stated that they had done so in the past on their first survey completion, which may suggest that they have moved on from the more structured Wild Ways Well programme to the Nature Ninjas, therefore increasing their time and confidence in nature.

Across all individuals 88% agreed that they feel better when they are outdoors in nature. One participant showed a change over time, moving from strongly disagree to strongly agreeing that they feel better in nature.

We considered capabilities for engaging with greenspace through 11 nature engagement capabilities items. Overall capabilities scores were high (Table 4), with a mean capability across individuals of 8.5 (min 5.8, max 10). Although average scores were consistently high for all time periods, some changes were seen in those individuals who submitted responses in more than one time period. Improvements in at least one capabilities item were seen for nine respondents, and every capabilities item improved for at least one individual. The items for which change over time was most pronounced were *“I can identify many different types of plants, birds, or insects”* and *“I know how to get to my local greenspace”*.

Table 4: Median (min-max) scores for nature engagement capabilities items. Calculated from the first response given by each unique individual (n=48). Response options from strongly disagree to strongly agree on a 0-10 scale.

	Capabilities item	Median score (min-max)
1	I know how to get to my local greenspace	10 (4-10)
2	I am used to being in a natural environment	10 (4-10)
3	I feel confident that I would be able to handle situations that might arise in my local greenspace	10 (2-10)
4	I am not put off by natural elements like dirt or mud etc.	9 (0-10)
5	I see myself as the kind of person who spends time in nature	10 (4-10)
6	I feel like I can explore natural spaces I have not visited before	10 (3-10)
7	I am interested in the natural world	10 (0-10)
8	I know about ways I can get involved in looking after my local greenspaces	8 (0-10)

Comments from respondents most often mentioned the positive impact that being out in nature with CLL has on their mood and wellbeing:

*“Being a volunteer has helped me as a full time carer to get a break and work with others to improve the environment for everyone which is very worthwhile”*

*“Volunteering as a Nature Ninja with CLL has been really rewarding, I’ve learned more than I could have imagined about my local town and the how ecologically important it is, and I’ve met some great likeminded people”*

Comments also refer vaguely to the importance of involvement in relation to “the last year”, and mention the extra effort taken to maintain activities through the COVID-19 pandemic. Although not formally measured, the contributions of CLL to maintaining the wellbeing of its participants during personal and national crises is clear.

*More people feel that they can work together to improve the community*

Across all individuals, 88% agreed that they can work together for their community. One participant demonstrated an increase in agreement, moving from strongly disagreeing to strongly agreeing that they can help their community.

The community aspect of CLL was also highlighted by respondents as being something they looked forward to. Working as a part of a group was identified as adding to the positive experience of being outdoors:

*“I enjoy being outdoors with like minded people. Fresh air, exercise and social contact as well as improving the environment.”*

*“Really enjoy working alongside others to improve local greenspace.”*

## 4. Storytelling approaches

### 4.1 Summary and key findings

In the storytelling approaches component of the evaluation we used three methods: participatory video, digital storytelling and narrative inquiry interviews. In this report we focus on the findings from the digital storytelling and narrative inquiry interviews. The findings from the participatory video component are included in the mid-term evaluation report (Year 2).

Both project participants and staff noted positive impacts of their engagement, particularly in terms of mental health and wellbeing, sense of connection to the community and to nature, learning about nature, and ability to use greenspaces. The project played an important role during the COVID-19 lockdowns, where both participants and project officers benefitted from the sense of community and purpose that the project provided.

The success of the project was partly afforded by the long-term nature of the project funding. The availability of funds over a long period of time enabled project officers to experiment and refine their approach to delivering the Wild Ways Well and Nature Ninja programmes, and to be adaptable to different participants' needs.

Participants have a great appreciation for the project officers, and valued their enthusiasm and the specific knowledge each of them shared. Participants from both the Nature Ninja and the Wild Ways Well sessions expressed a strong desire for the sessions to continue. However, there is a reluctance to take on responsibility for the management and administration of the group after the National Heritage funding ends.

The stories that both project staff and participants told each other throughout the programme played a strong role throughout the CNC project to connect participants and staff to the Cumbernauld's nature, history and people.

### 4.2 Storytelling research methods

We gathered the data using three different storytelling approaches: participatory video, digital storytelling and narrative inquiry (NI) interviews. The use of three different methods was necessitated through the challenges imposed by COVID-19 and staff turnover.

Participatory video was used in 2018-2019 with two different participant groups, teenagers at St. Maurice's High School and a group of adults with learning disabilities taking part in the Wild Ways Well programme. Four videos were produced. Findings from these case studies can be found in the Cumbernauld Living Landscape (CLL) mid-term evaluation report (Year 2).

In 2020, during the COVID-19 pandemic, we delivered digital storytelling training online for CLL staff, with the intention that those trained would subsequently teach different groups of people who had taken part in the programme to create digital storytelling. However, staff turnover prevented this occurring as planned, so three digital storytelling videos were produced by CLL trainees in 2022.



To ensure that we were capturing the experiences from as many programme participants as possible, we adopted the narrative inquiry method. Narrative inquiry interviews enable people to describe their experience with minimal intervention from the researcher. Following the interview, key elements of the transcribed content are extracted and re-ordered to form a coherent story, which is then sent back to the participant for their approval/additions/edits.

Eighteen narrative inquiry interviews were conducted between 31<sup>st</sup> October and 3<sup>rd</sup> November 2022 in Cumbernauld. Four of the interviewees were project staff involved in delivering the project, five were Nature Ninja volunteers, six were Wild Ways Well participants, two were both Nature Ninja and Wild Ways Well participants, and one was a primary school teacher who had taken part in the 'Connecting Young People' work stream of the CNC project. Participants were asked to respond to the primary question *'Could you tell us about your experience of the Creating Natural Connections project, taking us through the events and experiences that were important for you and how they were impactful, from when it started four years ago, to where you are today.'* Following their response, we asked further questions around the six CNC project outcomes.

The three digital stories and eighteen narrative inquiry stories can be viewed here: <https://www.hutton.ac.uk/research/projects/stories-nature-connections>. Participants' names have been pseudonymised.

### 4.3 Findings of the storytelling component

The impacts of the Cumbernauld Natural Connections (CNC) project were found across all six project outcomes:

#### People feel like they are using their skills in the community

We identified four ways in which people who took part in our study felt they were using their skills.

#### **Participants used their skills within the CNC programme**

Nature Ninja volunteers felt that the work they carried out was useful for the community. They mentioned that they felt that the work clearing paths were making greenspaces safer and more accessible for the community and that this was particularly worthwhile during the lockdowns. See [Mark's story](#), where he talks about the Nature Ninja volunteers' work enabling his elderly mother to access St. Maurice's Pond.

#### **Participants apply knowledge and skills acquired beyond the CNC sessions**

Participants also highlighted skills and knowledge about the environment acquired through the Nature Ninja sessions, which they are then able to use in practical ways, such as litter-picking, in their own gardens or neighbourhoods, beyond the sessions.

Volunteers had opportunities to take part in training sessions as part of the Nature Ninja programme, which they found to be useful beyond the Nature Ninja session. For example, one volunteer was able to apply the skills she learned from a First Aid Course (see [Margaret's story](#)).

### **Participants feel able to share knowledge and discuss environmental topics**

Both the Nature Ninja sessions and the Wild Ways Well walks provided participants with information about ecosystems and the environment. Individuals consequently feel more confident and able to engage in discussions about the environment.

*'I think I engage more with discussions about the environment and about nature because I feel better informed. So for example, if people are talking about conservation work, or people are talking about ecology, or global warming, or whatever it happens to be, I actually feel like I've got something a bit more valuable to contribute to that discussion.'* [Abbie, Nature Ninja volunteer and Wild Ways Well participant]

Participants said that they share this new knowledge with friends, neighbours and family members. For example, one Nature Ninja participant encouraged her neighbour to use gardening practices that encourage biodiversity. Similarly, a participant in the Wild Ways Well walks talks about wanting to share the knowledge she's gained, to encourage others to be more aware and involved in environmental issues. See [Sue's story](#).

### **Project staff use their specific skills and knowledge in the CNC programme**

Project staff were able to utilise their skills, knowledge and experience in the delivery of the Wild Ways Well and Nature Ninja sessions. For instance, one project officer talked about how he conveys his passion for ecology and foraging with Wild Ways Well participants (see [Camilo's story](#)). Another project officer described how, through the CNC programme, he developed the skills that enabled him to successfully develop and implement the Wild Ways Well programme and how his own mental health journey informed the design of the Wild Ways Well programme (see [Paul's story](#)).

The traineeship programme offered trainees the opportunity to both develop and utilise their skills. For example, one of the trainees described in her digital story (['Winter doesn't last'](#)) how she developed the confidence and skills to become a project officer and lead sessions. Another trainee describes in her digital story (['Embracing the community'](#)) how the experience allowed her to contribute her two passions within the role: art and nature.

This enthusiasm for the sharing of knowledge was appreciated by participants. For example, [Elizabeth's story](#) talks about how fascinating she finds a project officer's knowledge about trees and fungi. See also [Frank's story](#).

### **People feel like part of their neighbourhood**

Participants described different ways in which the CNC programme enabled them to feel like a part of the neighbourhood:

### **Connecting to Cumbernauld through learning about its greenspaces, history, and ecology**

By participating in Nature Ninja and Wild Ways Well sessions, participants discovered greenspaces they had not visited or were not previously aware of.

*'I've learned about places I didn't know in Cumbernauld to go and visit and walk around which I've discovered from being taken to do various projects there, whether it's the invasive species, picking up the litter, or planting the wildflowers.'* [Margaret, Nature Ninjas volunteer]

Participants said that thanks to this new knowledge of Cumbernauld's greenspaces, they now use these beyond the CNC programme. For example, a support worker who regularly participates in the Wild Ways Well, explained that he is now able to walk through new routes with his clients (see [Jack's story](#)).

In addition, the sessions provided participants with other information about Cumbernauld, such as its history and the wildlife that exists in Cumbernauld.

*'I think what I've learned the most is about animals and knowing what is in my local area. I've been so amazed at what I've found out about what's around about me. On one of the walks we went on to a local area, we found a badgers set. It's something I'd never known about ... I have this newfound sense of awareness.'* [Sue, Wild Ways Well participant]

Similar to the experience of participants, project staff learnt about Cumbernauld and changed their perspectives about the town. For example, the project manager highlights how this job has changed her view of Cumbernauld, giving her a sense that other people would also benefit from knowing the town in this way. See [Tracy's story](#). A project officer explained how, through conversations had with project participants, he was able to learn about Cumbernauld and its history, and connect to the local community.

### **Finding a sense of community in the CNC programme**

Another important mechanism for this sense of belonging was the support and community that they found in being part of the sessions, particularly during lock-downs. The Nature Ninja and Wild Ways Well sessions are seen as a way of connecting with and meeting up with friends.

*'It's another way for me to connect with my friends, because I wouldn't be seeing them a lot otherwise.'* [Elizabeth, Wild Ways Well participant]

The sessions are also an opportunity for participants to make new acquaintances, in particular people with similar outlooks. However, the demographic homogeneity of the participants was also seen as a limitation of the project. In particular, it was felt that more people from different age groups would benefit from taking part in the Nature Ninja sessions.

Similar to the participants, project staff also benefitted from the project in terms connecting with other people, fostering inter-generational connections, and developing a sense of community. For example, one project officer said that leading the Nature Ninja sessions had been an opportunity to connect with people who had similar interests or values. See

[Aimee's story](#). One of the project trainees described in her digital story (['Embracing the community'](#)) how feeling like she can make a difference by working on the project instilled a sense of community in her.

### People feel able to use their greenspaces

The Nature Ninja and Wild Ways Well sessions empowered people who took part in our study to make use of greenspaces, by enabling them to discover new greenspaces, improving the accessibility of greenspaces, and providing people with skills and knowledge to interpret their surroundings.

### Discovering new greenspaces

The Nature Ninja and Wild Ways Well sessions took place in a variety of greenspaces, enabling people to discover areas they were not familiar with, including people who had lived in Cumbernauld for a long time.

*'Despite the fact that I have lived here from 1985 I did not engage with the greenspaces, didn't know about most of them, so for me it has just been such a lovely and really important experience to discover what is in Cumbernauld.'* [Rachel, Nature Ninjas volunteer]

For one participant who joined the Wild Ways Well walks as a support worker accompanying a client, joining the Wild Ways Well walks has enabled him to discover new routes to take with his client. See [Jack's story](#). Participants also conveyed this knowledge of greenspaces to other people in the community, such as members of other social or sporting groups.

### Feeling safer or more comfortable in greenspaces

Some people who took part in our study said that they now feel more comfortable in greenspaces by having developed new skills, such as an improved sense of direction that allows them to find their way around a woodland. People who took part in our study also talked about the not feeling safe walking through woodlands alone, and the Wild Ways Well enables them to do so in a way that feels safe to them:

*'I'd always been fascinated about going into woods, but I've never been out in a wood on my own, I would never go in the wood on my own. For two reasons: one, I wouldn't feel particularly safe. And two, I wouldn't know the wood so I wouldn't know where I would end up. So it's been a lovely safe way of doing that.'* [Elizabeth, Wild Ways Well participant]

The CNC programme also produced physical changes in the environment, making greenspaces as perceived safer spaces, for example, by making them more 'open' ("we're trying to open up areas that wouldn't be accessible ... if you open it up it becomes a lot safer to walk and you feel safer being there" (Mark, Wild Ways Well participant)). A primary school teacher who had taken part in CNC Young People's workstream talked about his work with CNC officers to make his school's outdoor space safer for the children (for example, by removing a pond from the school grounds). This may have a potential knock-on effect of encouraging other teachers to use the area for outdoor learning. See [Tony's story](#).

## Learning to interpret their surroundings

Project officers encouraged participants to take notice of their surroundings by providing them with information such as ecological knowledge and foraging, which they can then apply to interpret their surroundings. For example, a participant who regularly takes part in both the Nature Ninja and Wild Ways Well sessions discussed how she now has a better understanding of nature and the environment and therefore feels like she can enjoy it more. Participants are then able to use these interpretation skills while using greenspaces beyond the CNC sessions. For example, see [Abbie's](#) and [Joanna's](#) stories.

*'I notice a lot more when I'm out and about just by myself. If I'm just walking the dog or whatever, I'm finding the quality of my time that I spend outdoors away from the Ninjas and Wild Ways Well is better because I know more of what I'm looking at.'* [Abbie, Nature Ninja volunteer and Wild Ways Well participant]

## People feel that they can help improve the environment

Participants discussed feeling that they contributed to improving the environment through their volunteer activities or, in the case of project staff, through delivering the projects. The Nature Ninja sessions consisted of activities such as scything, litter-picking, planting wildflowers, removing invasive species and removing tree-guards. Volunteers felt that this work contributed to improving biodiversity and helping wildlife, as well as improving the accessibility of greenspaces, as outlined above. See [Mark's story](#) for a prime example.

As part of the 'Connecting Young People' workstream, the CNC project worked with teachers to improve biodiversity on school grounds. See [Tony's story](#) for further information.

One of those involved in delivering the project suggested that it helped people develop a connection with nature, which fostered pro-environmental behaviours:

*'we're encouraging people to fall in love with nature, because people will fight to protect what they love. And if we can build that relationship, then we're...I feel we're achieving a conservation goal by doing that.'* [Paul, project officer]

## A sense of making a difference

The Nature Ninja sessions provided volunteers with a sense of satisfaction for improving the environment. They particularly discussed the significance of seeing the visible impact of their volunteering on the environment, such as scything and the creation of wildflower meadows gave participants a sense of 'making a difference'. See [Abbie's story](#) for a clear example of this.

However, as a downside of the volunteering work, it was questioned how much of this work, such as litter-picking and clearing paths, should be done by the Council.

*'it always feels like such a pity that volunteers are picking litter just everywhere, you know, where should we stop and the council really shoulder the responsibility? Especially with the litter-picking part, it's actually quite soul destroying.'* [Helen, Nature Ninja volunteer].



Volunteers also discussed wanting to help the environment to improve things for the future. One volunteer discussed the desire to pass on her newfound knowledge to her great-nephew, and to give back to a place that is special to her. See [Sue's story](#).

### People feel better when outdoors in nature

The sessions made people who took part in our study feel better physically, mentally, and spiritually, e.g. *'it's good exercise, it's good for your mental health, it's good for your spiritual health, you know, and growth.'* [Jack, Wild Ways Well participant]. See also [Matthew's](#) and [Rachel's](#) stories as good examples of this. The social aspect of the sessions appears to be as much a contributor to wellbeing as being outdoors and the contact with nature. Others highlighted learning as an important ingredient. Many spoke of it being a combination of all these elements that produce impactful results in terms of wellbeing.

The Wild Ways Well walks was highlighted as being particularly beneficial for people with additional support needs. For example, see [Jack's story](#).

### Physical benefits

The main element that contributed to physical wellbeing was the opportunity that Nature Ninja sessions or Wild Ways Well walks provided to get physical exercise outdoors.

*'I did at first very much look upon the Cumbernauld Living Landscape as an outdoor gym, as a good opportunity to get outside, have some exercise, do something that's worthwhile and maybe some good; and it's been exactly that.'* [Mark, Nature Ninja volunteer].

### Mental health benefits

Participants mentioned the benefit on this project on their mental health. This was particularly the case during lockdown (see for example [Sue's story](#)). For some of the participants it was being outdoors that had a particular impact on their mental health. See for example [Elizabeth's story](#). For others the mental health benefits come from the social interactions involved in the activity.

Feeling comfortable during the Nature Ninja sessions or Wild Ways Well walks was discussed as a major benefit of the project. For example, one Nature Ninja volunteers spoke about how she is free to engage as much as she feels comfortable with during the sessions.

*'I think socially it's been brilliant because there's no expectation to be...if I'm in a mood where I just want to get on with it and get my head down and plough into it that's fine, nobody pressures me to make conversation, but if I'm in a mood where I want to be social that's fine too. It's very low demand on a social front, which you don't get anywhere else. It's very...mindfulness friendly because you can just be.'* [Abbie, NN volunteer and Wild Ways Well participant]

This adaptability was mentioned by the project staff as well. They highlighted how they always adapted the project to the people taking part making it a very tailored and individual approach that came out in the participant stories. It is discussed further in the additional findings below.

The impact on the mental health of those delivering the project was also discussed. The project officer who designed the Wild Ways Well walks indicated how being involved in the project changed their life in terms of their own self-esteem and placed great importance on the mental health benefits of this project (see [Paul's story](#)). Similarly, for the trainees involved in the project, they highlight how the traineeship improved their mental health, particularly during lockdown and made them more resilient (see digital stories '[Embracing the community](#)' and '[Winter doesn't last](#)').

Furthermore, the primary school teacher who had taken part in the CNC Young People's workstream highlighted the focus on mental health for the children he teaches, getting them to focus on their surroundings and connect to what's happening outside.

### **Spiritual wellbeing**

Spiritual growth and wellbeing was mentioned as a benefit of the Wild Ways Well walks. Activities that encouraged observation of nature and oneself had an impact on participant's spiritual wellbeing. See [Jack's story](#) for an example of this.

From a project delivery perspective, one of the project officers described these experiences as being fostered by mindfulness. They particularly talk about helping people connect to the environment, and improving their wellbeing by encouraging a sense of wonder. See [Camilo's story](#) as an example of this.

### **Having a sense of purpose**

Participants also mentioned the purpose that the project gave them, such the sense of satisfaction when completing Nature Ninja tasks (see [Helen's story](#)).

*'I suppose I'm quite task orientated. I enjoy the physical labour of the tasks, I enjoy getting muddy and dirty, and just trying to complete something that you can see a benefit from. It's a way to use my time, I think it's valuable in terms of the outcome, and also for physical fitness. I look forward to going out. I think it's partly the company, but partly the actual tasks themselves. I suppose it's the satisfaction of getting a job done.'* [Helen, Nature Ninja volunteer]

A sense of purpose was also present in the stories of those delivering the project.

### **Connecting with nature through learning**

Participants discussed how much they enjoyed learning new things through their involvement in the project, whether that be about the local ecology, or mythology (for example, see [Louise's story](#)). The key commonality of this learning was that it was learning outdoors in nature, and many highlighted how this gave them a greater connection to nature through this increased knowledge about their area.

The primary school teacher involved in CNC's Young People's workstream also discussed the benefits on teaching outside and how they noticed improvements in children's behaviour as a result of learning outside.

However, knowledge about the state of the ecosystem can also have negative effects on people's wellbeing. For example, learning about the pervasiveness of invasive species can be depressing.

*'The thing is a bit of knowledge is sometimes... knowledge of invasive species for example, it completely ruins a walk because you know what shouldn't be in the environment and how much there is. So it can be quite depressing going for a walk and seeing things that are degraded and how bad it is.'* [Helen, Nature Ninja volunteer].

People feel that they can work together to improve the community

### **Feeling like they have improved the community**

Volunteers, participants and those involved in project delivery feel like they are positively impacting their community.

*'I actually feel like I'm doing my little, tiny bit to help and that's not a lot and it doesn't feel like enough but at least I can do something constructive and make a visible difference. ... I'm actually making a difference to a little corner of the world that's better because I've been there'* [Abbie, Nature Ninja volunteer]

This feeling of satisfaction about improving the environment is discussed above in the section 'Feeling that they can help improve the environment'. For a further example, see the digital story ['Winter doesn't last'](#). Nature Ninja volunteers also found a sense of satisfaction when passers-by thank them of or seem pleased by what they have done. Moreover, the local primary school teacher involved in the project's Young People's workstream, discusses how they arrange training courses and make the CLL learning materials available for other teachers, so that they can also use the approach of the project. See [Tony's story](#).

### **Feeling like they are working together**

The section 'People feel that they can help improve the environment' above outlines the inclusive nature of the Wild Ways Well walks and the Nature Ninja sessions. Participants highlighted the camaraderie of the project. For example, one Nature Ninja volunteer discusses how working in a group enables her to do more than she would on her own:

*'I think just being out in an organised group where you're being taught while you're doing something, it makes a huge difference. ... I do so much more and give so much more when you've got the energy of other people around you. ... although you're maybe working 5 metres away from somebody else, you're not chatting all the time, but you see people working and you can see the bigger picture of what we're doing. So for me that energises me.'* [Joanna, Nature Ninja volunteer]

### **Empowering the community**

Those involved in the delivering the project highlighted how part of their ambition of the project was to empower people to continue to use their greenspaces beyond the project,

with the aim of enabling a connection with the environment and helping improve their physical and mental wellbeing. See [Camilo's](#) and [Paul's](#) stories. Another project officer indicates that this empowering element is particularly relevant for working with young people, who often get left behind. The experience and learning of former staff is now being applied in other projects, taking this potential for empowerment to the wider community (see [Paul's story](#)).

#### Additional findings

##### **Role of the project during COVID-19 lockdowns**

During the national lockdowns of 2020 and 2021, project staff adapted sessions to be run online, providing participants with opportunities to interact with each other online, and with activities to be carried out outdoors individually (see [Tracy's story](#)). Both participants and project staff found the project to be particularly supportive of their mental health and wellbeing during this time. The online sessions enabled people to maintain social interactions, sustaining a connection with the community.

*'Then the pandemic hit. They ran Zoom sessions so that we could all keep in touch and so there would be that connection there. Quite honestly, I think it kept me sane through the first lockdown because it just gave me that point in the week where there was something that was just for me'* [Abbie, Nature Ninja volunteer and Wild Ways Well participant]

People who discovered new greenspaces through Nature Ninja and Wild Ways Well sessions found this new knowledge especially useful during the lockdowns. In addition, the work that Nature Ninja volunteers had carried out was seen as being useful to the community, in that it provided people with safe and accessible areas to exercise in when other activities were restricted. This was seen as particularly helpful for elderly people or people with limited mobility. For example, see [Mark's story](#).

##### **Concern for the future of the project**

Participants from both the Nature Ninja and the Wild Ways Well sessions expressed a strong desire for the sessions to continue. They were however concerned about the future of the project after the NLHF funding ends. Nature Ninja volunteers said they would like to continue taking part in sessions; they value the benefits to their social, mental, and physical wellbeing, as well as the benefits they contribute to nature and society as volunteers. However, there is a reluctance to take on responsibility for the management and administration of the group.

*'One of the things that I promised myself and I promised my friends when I took early retirement is I am not going to end up back on a committee, I'm not going to end up running things. ... I know that the intention is that it becomes a self-organising group and that absolutely strikes horror into me and it's something that I find quite upsetting because that's really not what I want from this group. I really wanted a group where it was possible to come along on a Tuesday, take part, go away.'* [Rachel, Nature Ninja volunteer].

Although some of the participants had experience and skills that would be useful for managing the groups, there was an unwillingness to take on a management or administration role and a reluctance to take on the associated risks. Participants felt that taking on this responsibility would negate the many benefits they received from the project. They valued the knowledge that project officers provided (for example, see [Jane's story](#)), and doubted that the group would be successful without a knowledgeable and experienced leader. Nature Ninja volunteers were also concerned about the work they have carried out the progress they had made during the sessions would be lost, particularly for tasks that are carried out annually, such as the creation and maintenance of wildflower meadows (see [Helen's story](#)).

### **Relationship between project officers and participants**

Participants have a great appreciation for the project officers, and valued their enthusiasm and the specific knowledge each of them shared. This enthusiasm was present across all the project officers, with each of them bringing their own unique interests to it.

*'One of the things that I've really enjoyed about the project is the enthusiasm that the actual project employees bring to it has really engaged me and brought me to an interesting new aspect. I've always loved the outdoors, but it's really given me new specific interests within that, that I don't think I necessarily would have had without the project'* [Abbie, Nature Ninja volunteer and Wild Ways Well participant]

The relationship was also discussed by the project officers. They highlighted how much they enjoyed making connections with the volunteers and participants. For example, see [Camilo's story](#).

### **Power of storytelling**

Stories were used throughout the CNC project to connect participants to the nature and the history of the area.

*'Paul's a storyteller and I loved his use of the seasons and Celtic mythology. It's awakened another interest of mine. I think again that's been about connecting more with the seasons and with outdoor spaces. I think for me when I'm in Cumbernauld I'm very conscious that it's got thousands and thousands of years of layers of history that I just find fascinating. I think now that I feel that I'm rooted in that, so I'm not just rooted in my history in Cumbernauld, I'm now rooted in that much longer history in Cumbernauld which is a really good feeling.'* [Rachel, Nature Ninja volunteer]

[Paul's story](#) outlines the difficulty and importance of enabling different people to share their stories. Other project officers emphasised stories as an important way of getting to know the volunteers and participants, as well as Cumbernauld. This was particularly the case for a project officer who was new to the area. For the project manager, stories provide the foundations for the success of the project, and are the key to connecting people to Cumbernauld, its environment and the project.

*‘When you’re passionate about something people see, it’s infectious, and they buy into it and that’s the hook. It’s the people that work here that are the hook. It’s not that wee birdie that you’ve hardly ever seen, it’s the people that tell them the story of that wee birdie, this project is about people first and foremost.’ [Tracy, Project manager]*

### **Importance of adaptability and long-term funding**

The project officers outlined how the project had had to adapt and change throughout, particularly during the pandemic, due to the ever-changing context. The long-term funding is noted as being particularly useful in enabling this adaptability. See [Tracy’s](#) and [Paul’s](#) stories for further information. An important example of this adaptability is with the development of the Wild Ways Well programme. See [Paul’s story](#).



## 5. Reflections on the monitoring and evaluation methods

This section reflects on the three research methods used in the monitoring and evaluation work carried out by the James Hutton Institute team as part of the Creating Natural Connections (CNC) / Cumbernauld Living Landscape (CLL) project. The methods were designed to complement each other in gaining understanding of the people-focused outcomes, specifically in relation to the *'Unlocking community capacity'*, *'Connecting young people to nature'* and *'Promoting green health and wellbeing'* workstreams.

### 5.1 Reflections on the individual methods

Each method had its own strengths and weaknesses/challenges (Table 5). Consideration of these factors can help identify the opportunities for and limitations of the monitoring and evaluation data, as well as inform evaluation strategies for future work by CNC / CLL.

### 5.2 Reflections on the suite of monitoring and evaluation methods as a whole

The suite of monitoring and evaluation methods developed by the James Hutton Institute researchers yielded useful data for evaluation of the project outcomes. Between them, the methods engaged all groups of beneficiaries directly targeted by project activities in the *'Promoting Green Health and Wellbeing'*, *'Unlocking Community Capacity'* and *'Connecting Young People to Nature'* workstreams.

The methods did not fully capture perceptions and behaviours of the wider Cumbernauld community. This challenge was partly due to the design of the methods around the three people-focused workstreams and the specific beneficiaries targeted within these (rather than, for example, assessing wider perceptions of habitats and access improvements). In response to the independent mid-term evaluation report, we explored the potential to evaluate outcomes in the wider community within the community-based research component. This was not, however feasible, due to a lack of events engaging larger numbers of people at public events in the COVID-19 and post-COVID lockdown periods.

The combination of participatory (involving participants in the evaluation itself) and qualitative methods with quantitative methods in the evaluation has helped to evidence the depth of the positive impacts experienced by the project beneficiaries. This pooled insight from this suite of methods has also highlighted further opportunities for community engagement by CLL. Whilst qualitative methods are less able to evidence the impact of the project in quantitative terms (the *'more people are...'* element of the outcomes), they have unique strengths in conveying the nature of participants' experiences (rather, *'people are more...'*). The use of Participatory Video in the evaluation has been essential in engaging people, such as those with additional support needs, for whom other methods would be exclusionary, as they require numeracy, literacy and verbal skills that these participants do not have. The need to adapt the storytelling approaches in light of the challenges of COVID-19 and project staff turnover meant we were not able, in the Year 4 evaluation work, to include directly the voices of groups such as young people and those with poor mental health. For this reason, it is important to consider findings in this report alongside those in the mid-term evaluation.

Table 5: Strengths and weaknesses/challenges of the three research methods used to monitor and evaluate the Creating Natural Connections (CNC) / Cumbernauld Living Landscape (CLL) project

	Strengths of the method	Weaknesses/challenges of the method
<b>Community-based research</b>	<ul style="list-style-type: none"> <li>Community researchers (CRs) have local knowledge of people and places</li> <li>CRs were able to draw on their own network of contacts in the community to recruit participants.</li> <li>CRs took on an independent evaluation role</li> <li>CRs experienced benefits from their involvement: skills development (interviewing/ research, digital skills) and knowledge (of places, groups, local contacts, and about nature); enhanced employment opportunities (one CR went on to a post leading greenspace-related initiatives, with the CLL experience seen as a direct advantage); and enjoyment gained from working within the team and with interview participants.</li> <li>The continuity of CRs between the mid-term (year 2) and final (year 4) evaluation work meant that CRs were able to further build on the skills and relationships developed at the mid-term evaluation, with less training input in year 4.</li> <li>The method was easy to adapt to working online during COVID-19 restrictions.</li> <li>Carrying out community research at three time points (project start; mid-term; final evaluation) enabled us to learn from experience and adapt the method accordingly.</li> </ul>	<ul style="list-style-type: none"> <li>Professional researcher inputs were greater than initially anticipated or budgeted for.</li> <li>For community-based research to offer valuable data for project evaluation (rather than broader research aims) the role must be clearly defined. In the initial (Year 0) work, the objectives were left open for CRs to develop. This, and other challenges in retention of CRs, led to a lack of useful baseline data. Directly focusing the scope of the research on the project outcomes led to success in year 2 and 4.</li> <li>Staff turnover (in project staff, and in other organisations in the community) posed a challenge for the community research component. Staff changes at CLL led to delays in appointment of CRs in year 4, and knowledge gaps in relation to how/whether different groups or organisations had been engaged. Staff changes in community organisations meant that contact lists held by CLL were not always up to date.</li> <li>The community research was successful in capturing the impacts of the community capacity-building activities, but was limited in its ability to capture views of the wider population (due to lack of large community engagement events since COVID-19).</li> </ul>

	Strengths of the method	Weaknesses/challenges of the method
<b>Storytelling approaches: participatory video / digital storytelling / narrative inquiry interviews</b>	<p><b>Narrative approaches in general:</b></p> <ul style="list-style-type: none"> <li>• The open-ended nature of narrative methods allows participants to highlight factors that might not come up in response to more structured methods such as surveys.</li> <li>• Provides rich and nuanced qualitative data.</li> <li>• Allows people to express their views in their own words or in as alternative forms of expression.</li> <li>• By providing alternative forms of expression, these methods can be effective for understanding the experiences of ‘harder to reach groups’, and those for whom conventional methods are exclusionary.</li> <li>• The outputs from these methods (e.g. videos) can be an impactful way of representing people’s experiences.</li> <li>• Outputs (e.g. videos) can be useful or valuable for participants.</li> <li>• Enjoyable for participants; learning of new skills in participatory video and digital storytelling. The process can help participants reflect on the topics discussed.</li> </ul> <p><b>Participatory Video:</b></p> <ul style="list-style-type: none"> <li>• Enjoyable for participants, in terms of the creative process, learning new skills, social interactions, and producing a tangible product they feel proud of.</li> <li>• Can give a voice to people for whom conventional methods (such as those requiring written, numeracy and verbal skills) are exclusionary.</li> <li>• The method simultaneously is an intervention as well as an evaluation: by engaging with greenspaces throughout the filming</li> </ul>	<p><b>Narrative approaches in general:</b></p> <ul style="list-style-type: none"> <li>• Challenging to adapt during COVID-19, due to participatory and group-based nature of participatory video and digital storytelling.</li> <li>• Training and data collection are time-intensive for both researchers and participants.</li> <li>• Participants need to have a story to tell. This may be most impactful at the end of an intervention rather than as a monitoring method before or during an intervention.</li> </ul> <p><b>Participatory Video:</b></p> <ul style="list-style-type: none"> <li>• Time-consuming to learn and train others in the method.</li> <li>• Time-consuming and staff-resource intensive to conduct. For one of groups, participatory video had to become structured part of their nature-engagement programme, meaning participants were inside editing videos rather than outside experiencing greenspace.</li> <li>• The group aspect of participatory video means that there is a risk that some participants push their narrative. Skilled facilitation is required.</li> <li>• Risk of imposing facilitators’ views or agenda into a story, especially when working with people with additional support needs. Careful facilitation is required to minimise this risk. External facilitators rather than project officers may be better placed to implement participatory video as an evaluation method.</li> </ul>

	Strengths of the method	Weaknesses/challenges of the method
<b>Storytelling approaches cont.</b>	<p>process, some participants realised that greenspaces can provide benefits such as helping with stress.</p> <ul style="list-style-type: none"> <li>• Participatory video was incorporated into the school curriculum as an activity contributing to literacy and communication skills.</li> <li>• The group aspect of participatory video allows people to participate in different ways (e.g. writing a script, drawing the storyboard, suggesting ideas, taking photos, video editing), enabling people with diverse skills to take part.</li> <li>• The group aspect makes it less intimidating for individuals who do not like all focus to be on them as an individual.</li> <li>• Participatory video provides a collective group insight.</li> </ul> <p><b>Digital storytelling:</b></p> <ul style="list-style-type: none"> <li>• Participant is in complete control of story and visuals, and has ownership of the end product.</li> <li>• Digital storytelling tend to follow a clear story arc. Participants have time to reflect and on the story they want to tell, and to receive feedback on the form of the story, both of which contribute to producing a clear and engaging message.</li> </ul> <p><b>Narrative inquiry interviews:</b></p> <ul style="list-style-type: none"> <li>• Enjoyable, empowering and potentially cathartic/therapeutic for participants. Talking without being interrupted/steered provides time and space for reflection.</li> <li>• Participants have control over the story told; they decide what to talk about, and how a topic is presented.</li> <li>• Participants' perspectives are analysed and presented within the context of their whole story, limiting the risk of interpreting findings out of context.</li> </ul>	<ul style="list-style-type: none"> <li>• Ethical issues around sharing participatory video outputs. With group outputs, everyone needed to agree they could be shared, especially online.</li> <li>• Participants have control over the use of their stories, meaning there is a risk they may decide not to final outputs, particularly since all participants must be in agreement.</li> <li>• The consent process, involving agreeing on how and with whom to share outputs can be lengthy.</li> <li>• The method can be useful for evaluation at the end of an intervention (particularly with people for whom other methods are not appropriate). However, it is not suited for monitoring throughout a programme, due to the time and resources required, as well as because it is more suited once participants have a story to tell.</li> </ul> <p><b>Digital storytelling:</b></p> <ul style="list-style-type: none"> <li>• We delivered online training for project staff to enable them to in turn facilitate the digital storytelling method with participants. However, project officers were unable to implement the method with the range of participants we had planned. Therefore, digital storytelling may not lend itself as a method to be 'handed over' to project officers.</li> <li>• Video-editing requires IT skills which could exclude some participants, particularly if the method is conducted entirely online.</li> </ul> <p><b>Narrative inquiry interviews:</b></p> <ul style="list-style-type: none"> <li>• Relies on participants being comfortable with expressing themselves verbally, which could exclude some people.</li> </ul>

	Strengths of the method	Weaknesses/challenges of the method
	<ul style="list-style-type: none"> <li>• Potential to turn story into an audio-visual format, potentially increasing the impact of the message. Videos can also be valuable or useful to participants.</li> <li>• Extremely rich material, analysis of which results in-depth knowledge/insight for researchers.</li> </ul>	<ul style="list-style-type: none"> <li>• The analysis and processing of interviews to create a 'story' can be time consuming.</li> <li>• The open-ended nature of the interviews means that participants talk about what is most relevant to them, which may not include the topics of most interest to research team.</li> <li>• Research expertise is required for tasks such as undertaking the analysis and editing the story. As such, it does not lend itself to be 'handed over' to project officers.</li> </ul>
<b>Capabilities survey</b>	<ul style="list-style-type: none"> <li>• Implementation and analysis was simple and required little input from the research team.</li> <li>• Short survey (5-10 minutes) minimises survey fatigue and enables results to be collected every 3 months.</li> <li>• Provides quantitative results on the projects outcome questions.</li> <li>• Anonymisation gives freedom to be critical if participants wanted to be. However, participants were mostly positive.</li> <li>• The method was very easy to adapt to COVID-19 restrictions. Pre-COVID-19 the survey was completed on paper, and post-COVID-19 participants were emailed a link which they complete online. No participants were lost through moving online.</li> <li>• Easy to track the responses over time if participants completed more than one survey. This did show change in some individuals through time.</li> <li>• Free-text question allowed interesting/nuanced insight/impact to be gathered. Participants mention the importance of the programme during COVID-19, and the supportiveness for employment.</li> </ul>	<ul style="list-style-type: none"> <li>• The survey did not get the engagement that was originally hoped for, but the engagement was still acceptable. This is related to the reduced engagement with the programme as a whole due to COVID-19.</li> <li>• The survey was conducted with volunteers and trainees who were already quite capable/nature engaged. As such, the findings of the survey were not that insightful for understanding increased capabilities or progression of engagement. In future, a different set of questions could be adapted, which could include a retrospective question.</li> <li>• There was no average change over time. This may be due to the participants already being capable, or due to their levels of comparison (i.e., they didn't know what they didn't know). It would be interesting to adapt survey to show participants their previous answers and discuss if they still believe their previous answers are correct now that they have engaged in the programme.</li> <li>• As a method, there is not a long-lasting impact on the participants.</li> </ul>

### **5.3 Learning points for future monitoring and evaluation**

The experiences of the researchers and project staff in relation to the monitoring and evaluation activities point to a number of critical aspects for successful evaluation of future Living Landscape work. We consider these across five areas.

#### **1) Resourcing and responsibilities**

It is essential that monitoring and evaluation activities are allocated an adequate proportion of project budget to allow for the complexity of evaluating outcomes for diverse and hard-to-reach audiences. Some of the key challenges that were experienced in the monitoring and evaluation work related to the initial ambition of the project for the professional researchers to design the methods and then help develop the capacity of the project officers to implement the methods by themselves. Realisation of this ambition was constrained by the time demands associated with training and implementing complex participatory methods (compounded by the extra pressures on delivery brought about by the COVID-19 pandemic) and staff turnover on the project team. This resulted in a greater input of staff time by the James Hutton Institute researchers than initially planned. The majority Hutton's input delivered through in-kind contributions were made possible because of alignment to the delivery of other research projects.

#### **2) Need for flexible, adaptable evaluation methods**

It was necessary to adapt all the evaluation methods (to a greater or lesser extent) in response to the constraints of COVID-19 lockdown and post-lockdown periods and in light of project staff changes. We were successfully able to respond to these constraints and, in some cases, make the methods more accessible for participants in the process. Future evaluations should consider how methods might be adapted to minimise the need for time-consuming re-designs.

#### **3) Embedding monitoring and evaluation throughout the project**

Measures were taken to ensure that monitoring and evaluation was considered in the design and delivery of the project throughout its lifespan, with ongoing contact between Hutton staff and Project Officers, and regular input on monitoring and evaluation in Project Management Group and Board meetings. This ensured that the monitoring and evaluation was able to respond to changes in the project delivery, and time the engagement of project participants appropriately, which would not be possible with a single catch-all end-of-project evaluation.

#### **4) Research ethics and the investigation of outcomes with vulnerable and hard-to-reach groups**

Working with vulnerable and so-called hard-to-reach groups requires a high standard of ethical practice. Evaluators need to be aware of the power dynamics that can influence the interactions between participants, researchers/evaluators, and gatekeepers (e.g. teachers, group leaders). They also need to be sensitive to the needs and competencies of the participants, to ensure that methods and modes of communication are appropriate and inclusive. The use of innovative methods to engage such groups may carry with them



additional ethical challenges that need to be negotiated, e.g. in relation to consent for different uses of video materials produced by groups.

### **5) Phasing of project and evaluation design**

One of the challenges in the design of monitoring and evaluation activities was that this took place in parallel to the development of the project's workplan and intended outcomes during the development phase of the project. Greater alignment between the methods and the outcomes would have been achieved earlier on in the project had it been possible to design the methods subsequent to the development of the activities and outcomes. This challenge was largely overcome by the flexibility achieved by having a suite of different methods available. Further challenges were raised in relation to achieving the type of sample sizes for the capabilities survey that had initially been envisaged at the early stages of project design.

## 6. Conclusions

Overall, the research highlighted successes of the Creating Natural Connections (CNC) / Cumbernauld Living Landscape (CLL) project across all six project outcomes. The main findings against each of the outcomes, drawing on all three research components, are summarised in Table 1 in the executive summary.

The evaluation demonstrated the extent to which the success of the CLL project has depended on *building relationships* and targeting *key audiences* - to build capacity across the Cumbernauld community, to reach new audiences and to develop trust with people in hard-to-reach groups. At the same time, the project faced substantive challenges to the delivery of the people-focused activities during the COVID-19 pandemic, and in the significant staff changes that have occurred since. The project was seen to have responded positively and creatively in taking activities online during COVID-19 lockdowns, however, some of the relationship building with community groups that occurred at the beginning of the project was disrupted and never quite re-established. There is considerable potential for future projects to build on the existing relationships and explore the opportunities to engage groups where there has been contact and interest expressed but where this has not been fully explored.

The research also highlighted the high level of existing capabilities among Nature Ninjas and volunteers, yet a disinclination to move towards a self-running model in the group. This points to the need to generate future funding to support the nature conservation volunteering, but also the value of continuing the activities that targeted specific groups in the community who may be less engaged with the natural environment already. This includes the Wild Ways Well closed groups, the engagement activities with community groups, and the work with young people.

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